An examination of the suitability of PADev as a method for effective participatory assessment of the development of higher education institutions: the case of Eduardo Mondlane University (1976-2016)

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An Examination of the Suitability of PADev as a Method for Effective Participatory Assessment of the Development of Higher Education Institutions:

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Abbreviations and Acronyms

AAEE	Academia de Altos Estudos Estratégicos (Academy of High Strategic Studies)
ACIPOL	Academia de Ciências Policiais (Academy of Police Sciences)
ADA	Austrian Development Agency
AEM	Associação de Engenheiros de Moçambique (Association of Engineers of Mozambique)
AGMM	Associação Geológico-Mineira de Moçambique (Geological and Mining Association of Mozambique)
AIDS	Acquired immunodeficiency syndrome
AJAs	Actividades de Janeiro (January activities)
AJUs	Actividades de Julho (July activities)
AM	Academia Militar (Military Academy)
APM	Associação de Psicologia de Moçambique (Association of Psychology of Mozambique)
ASC	African Studies Centre of the University of Leiden
AULP	Associação de Universidades de Língua Portuguesa (Association of Portuguese Language Universities)
BADEA	Arab Bank for Economic Development in Africa
BUSCEP	Basic University Sciences Course Experimental Project
CAPES	Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (Coordination for the Improvement of Higher Education Personnel)
CBP	Capacity Building Project
CCAA	Climate Change Adaptation in Africa
CDA	Centro de Desenvolvimento Académico (Centre for Academic Development)
CEA	Centro de Estudos Africanos (African Studies Centre of Eduardo Mondlane University)
CEAP	Centre for Studies and Psychological Support
CeCAGe	Centro para Coordenação dos Assuntos do Género (Centre for Coordination of Gender Affairs)
CEDIR	Centro de Estudos de Direito e Integração Regional (Regional Integration Law Study Centre
CEND	Centro de Ensino à Distância (Centre for Distance Education)
CEPAEP	Centro de Psicologia Aplicada e Exames Psicotécnicos (Centre for Applied Psychology and Psychometric Tests)
CEPPAG	Centro de Estudo de Políticas e Programas Agroalimentares (Centre of Studies of Policies and Agrifood Programmes)
CIUEM	Centro de Informática da Universidade Eduardo Mondlane (Eduardo Mondlane University Informatics Centre)

CNAQ	Conselho Nacional de Avaliação de Qualidade (National Council for the Assessment of the Quality of Higher Education)
CNES	Conselho Nacional do Ensino Superior (National Council for Higher Education)
CTA	Technical and Administrative Personnel
CUN	University Council
DAC	Development Assistance Committee
DAPDI	Directorate of Property Administration and Institutional Development
DC	Direcção Científica (Scientific Directorate)
DF	Direcção de Finanças (Finance Directorate)
DFG	Deutsche Forschungsgemeinschaft
DFID	Department for International Development
DGIS	Directorate General for International Co-operation
DICES	Direcção para Coordenação do Ensino Superior (Directorate for Coordination of Higher Education)
DNES	Direcção Nacional do Ensino Superior (National Directorate of Higher Education)
DOG	Dienst over de Grenzen (Service across Borders)
Dr.	Doctor
DRH	Direcção de Recursos Humanos (Human Resources Directorate)
DSD	Direcção de Serviços de Documentação (Directorate of Documentation Service)
DSS	Direcção de Serviços Sociais (Directorate of Social Services)
EDIT	EEMCS Diversity and Inclusion Team
EGUM	Estudos Gerais de Moçambique (General University Studies of Mozambique)
ESJ	Escola Superior de Jornalismo (Higher School of Journalism)
ESNEC	Escola Superior de Negócios e Empreendedorismo de Chibuto (Higher School of Business and Entrepreneurship of Chibuto)
ESUDER	Escola Superior de Desenvolvimento Rural (Higher School of Rural Development)
EFES	Strategy for the Funding of Higher Education
EMU	Eduardo Mondlane University
EP-NUFFIC	The organisation for internationalisation in education
FACED	Faculdade de Educação (Faculty of Education)
FAO	Food and Agriculture Organisation
FASE	Education Sector Support Fund
FBE	Fundo de Bolsas de Estudo (Scholarship Fund)
FCT	Fundo de Ciência e Tecnologia (Science and Technology Fund)
FDI	Institutional Development Fund
FENG	Faculdade de Engenharia (Faculty of Engineering)

FS	Faculdade de Ciências (Faculty of Sciences)
FAEF	Faculdade de Agronomia e Engenharia Florestal (Faculty of Agronomy and Forestry Engineering)
FE	Faculdade de Economia (Faculty of Economics)
FLECS	Faculdade de Letras e Ciências Sociais (Faculty of Arts and Social Sciences)
FMed	Faculdade de Medicina (Faculty of Medicine)
FNI	National Research Fund
FRELIMO	Frente de Libertação de Moçambique (Mozambique Liberation Front)
GQA	Office for Academic Quality
GaPQEI	Gabinete de Planificação, Qualidade e Estudos Institucionais (Planning, Quality, and Institutional Studies Office)
GP	Gabinete de Planificação (Planning Office)
GTZ	German Technical Cooperation
HE	Higher Education
HEI	Higher Education Institution
HES	Higher Education System
HEST	Higher Education, Science, and Technology
HIV	Human Immunodeficiency Virus
IBE	Institute of Scholarships
ICT	Information Communication Technology
IDA	International Development Association
IDRC	International Development Research Centre
ISAP	Instituto Superior de Administração Pública (Higher Institute of Public Administration)
ISCAM	Instituto Superior de Contabilidade e Auditoria (Higher Institute of Accounting and Auditing)
ISCET	Instituto Superior de Negócios e Ciências Tecnológicas (Higher Institute of Business and Technological Sciences)
ISCTEM	Instituto Superior de Ciências e Tecnologia de Mocambique (Higher Institute of Science and Technology)
ISEDEF	Instituto Superior de Estudos da Defesa (Higher Institute of Defence Studies)
ISP	Instituto Superior Pedagógico (Higher Pedagogic Institute)
ISPU	Instituto Superior Politécnico e Universitário (Higher Polytechnic and University Institute)
ISRI	Instituto Superior de Relações Internacionais (Higher Institute of International Relations)
ISTEG	Instituto Superior de Tecnologia e Gestão (Higher Institute of Technology and Management)

ISUTC	Instituto Superior de Transportes e Comunicações (Higher Institute of Transport and Communications)
IUC	Institutional University Cooperation
LAS	League of Arab States
MCT	Ministério da Ciência e Tecnologia (Ministry of Science and Technology)
MCTESTP	Ministério da Ciência e Tecnologia, Ensino Superior e Técnico-profissional (Ministry of Science and Technology, Higher Education and Technical and Vocational Education)
MEC	Ministério da Educação e Cultura (Ministry of Education and Culture)
MESCT	Ministério do Ensino Superior, Ciência e Tecnologia (Ministry of Higher Education, Science, and Technology)
MHO	Joint Financing Programme for Cooperation in Higher Education
MINED	Ministério da Educação (Ministry of Education)
MINEDH	Ministério da Educação e Desenvolvimento Humano (Ministry of Education and Human Development)
MODELS	Mozambican Development of Educational Leadership and Services Project
MoReNet	Mozambique Research and Education Network
MOSTIS	Mozambique's Strategy for Science, Technology and Innovation
MOZTEP	Mozambique Teacher Education Project
MOZADEP	Mozambican Development of Education Policy
MSL	Mozambican Sign Language
MZ	Mozambique
MPF	Ministry of Planning and Finance
n.d.	No date
NEW	Namibia-Eduardo Mondlane-Wits
NEPAD	New Partnership for Africa's Development
NFP	Netherlands Fellowship Programme
NGOs	Non-Governmental Organisations
NICHE	Netherlands Initiative for Capacity Development in Higher Education
NRF	National Research Foundation
NPT	Netherlands Programme for the Institutional Strengthening of Post-Secondary Education and Training Capacity
NUFFIC	Netherlands Organisation for the Internationalisation of Education
NUFU	Norwegian Programme for Development, Research, and Education
NVivo	Qualitative Data Analysis Computer Software Package

ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OGE	General State Budget
OrdEM	Ordem dos Engenheiros de Moçambique (Mozambique Engineers Association)
PADev	Participatory Assessment of Development
PAR	Participatory Action Research
PALAR	Participatory Action Learning and Action Research
PBL	Problem-Based Learning
PE-UEM	Plano Estratégico da Universidade Eduardo Mondlane (Eduardo Mondlane University Strategic Plan)
PGU	Swedish Policy for Global Development
PhD	Doctor of Philosophy
POL	Project-Oriented Learning
PPA	Practical Participatory Assessment
PRE	Programa de Reabilitação Económica (Economic Rehabilitation Programme)
PRES	Programa de Reabilitação Económica e Social (Economic and Social Rehabilitation Programmes)
PRETEP	Programme to support the Reform of Technical and Vocational Education and Training
Prof. Dr.	Doctorate Professor
PUO	Programme for University Development Cooperation
RENAMO	Resistência Nacional Moçambicana (Mozambican National Resistance)
RUMA	Reforma da Administração e Gestão Universitárias (Reform of University Administration and Management)
SADC	Southern African Development Community
SADCC	Southern African Development Coordination Conference
SANTED	South Africa-Norway Tertiary Education Development Programme
SAREC	Swedish Agency for Research Cooperation
SDGs	Sustainable Development Goals
SIDA	Swedish International Development Cooperation Agency
SINAQES	Sistema Nacional de Avaliação e Garantia de Qualidade do Ensino Superior (National System of Assessment, Accreditation, and Quality Assurance for Higher Education)
SISQUAL-UEM	Sistema de Gestão da Qualidade da Universidade Eduardo Mondlane (Quality Management System of Eduardo Mondlane University)
SIU	Norwegian Centre for International Cooperation in Higher Education

STADEP	Staff Development Project
STI	Sexually Transmitted Infections
SV	Cooperation Links Programme
THE	Times Higher Education
TVET	Technical Vocational Education and Training
UCM	Universidade Catolica de Mocambique (Mozambique Catholic University)
UEM	Universidade Eduardo Mondlane (Eduardo Mondlane University)
UJC	Universidade Joaquim Chissano (Joaquim Chissano University)
UKAID/DFID	United Kingdom Aid/Department for International Development
ULM	Universidade de Lourenço Marques (Lourenço Marques University)
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UniTiva	Universidade Wutivi (*Wutivi* University*)*
UniSave	Universidade Save (Save University)
UniPúnguè	Universidade Pungue (Púnguè University)
UniLicungo	Universidade Licungo (Licungo University)
UniRovuma	Universidade Rovuma (Rovuma University)
UNDP	United Nations Development Programme
UNPFA	United Nations Population Fund
UNU	United Nations University
UP	Universidade Pedagógica (Pedagogic University)
USSR	Union of Soviet Socialist Republics
VLIRUOS	Flemish Inter-University Council – University Development Cooperation
VRA	Academic Vice-Rectorship
VRAR	Vice-Rectorship for Administration and Resources
WB	World Bank
WBP	World Bank Project

CHAPTER 1

Introduction

This study examines the suitability of the Participatory Assessment of Development (PADev) approach as a method for the effective assessment of the development of higher education institutions, particularly the case of Eduardo Mondlane University (EMU) in the period ranging from 1976 to 2016. In so doing, the study aims, first, to assess the historical path of development of the university based on the recollection of events, occurrences, and/or interventions recalled by the actors who experienced those. The recollection of the actors who were in that temporal and physical space at different times enabled to build collective narratives around the History of the memory of a process, the development of EMU, an institution that went from a colonial university founded in 1962 to a national university in 1976 onwards. The development of the university, was not internally isolated from the societal demands and expectations, but external factors such as the decolonisation movement and the globally assumed development agenda also played a relevant role in the development of the university. Although our intention does not include the problematisation of these factors, both are unavoidably references for the analysis of the university development process.

The historical background of the development of academia both in Africa and Mozambique is provided as the context to discuss the development of Eduardo Mondlane University. Since the establishment of EMU as a higher education institution matches the establishment of the Mozambican Higher Education System it is important to address the issues concerning the development of the system itself, which cannot be isolated from the regional trends and developments.

The thesis aims to evaluate the PADev method, a newly developed holistic, participatory and rigorous approach to development assessment, also as an impact measurement tool that add both context and depth by building up a big picture of development and change in an area over time based in the value system s of the population. PADev was developed in response to growing concern about the lack of quality and design flaws of evaluation practices in and around development activities (Pitman et al, 2005, as cited in Dietz et al, 2013), also the growing scepticism regarding the effectiveness of the development aid agencies, as they are expected to demonstrate proof of success, as well as criticisms towards the monitoring and evaluation tools used to appraise the effectiveness of development interventions. Dutch NGO dealing with development, poverty alleviation, human rights or the environment and development, were not satisfied with the existing monitoring and evaluation practices, which focused on too short period, always donor- or sponsor-driven, too narrowly focused on input and output, and projects are frequently evaluated in isolation of wider developments in

the region, and the opinions of the supposed beneficiaries largely neglected. The new dynamics in evaluation practices of development activities placed PADev as an alternative approach to impact evaluation (Dietz and et al, 2013). The employment of PADev method to see how it fits the study of the university development trajectory demanded the analyses of the underlying premises of the PADev approach. PADev as a participatory evaluation tool was developed in a rural setting in West Africa (Dietz et al., 2011; and Dietz et al., 2013), precisely in Northern Ghana and Southern Burkina Faso, to allow for local people in developing countries to express their assessment of development and change (Dietz et al., 2013).

According to Myrdal (1969) in the development decades that started in the 1960s, and particularly since the 1970s, the boundaries, established at the end of the Second World War, between North and South, which is between development and underdevelopment[1], became evident. The decolonisation and the emergency of the Cold War demanded a new approach towards both countries and territories - colonies or former colonies - in which poverty, illiteracy and poor health standards were very widespread (Myrdal, 1969, as cited in King and Buchert, 1999).

As stated by Forster (1999), in the 1960s, in the wake of decolonisation, international development cooperation became a new dimension of international relations, with a fairly plain objective, namely the development of the underdeveloped countries and territories by the developed nations, particularly through ODA (Official Development Assistance). The end purpose was to reduce the gap between rich and poor countries through economic growth and diversification (industrialisation) that might be achieved by higher rates of investment. The international transfer of resources – through ODA or otherwise was meant to contribute to investment financing and, subsequently, growth. Social development was not explicitly on the agenda, but also benefited from the growth (Forster, 1999).

Over decades, the boundaries between donors and recipients[2] of of official development assistance have changed due to the extension of its scope, and the changing roles among donors and recipient. As the content of development cooperation has constantly been expanded, new objectives were added to the original ones. In the first phase, the key

[1] The dichotomy dividing the world into developed and developing areas was widely accepted both because it reflected the expectations of many new post-colonial states to see their specific problems taken seriously in the wake of decolonisation and because of a general common understanding of what development was to achieve. Yet, the Third World still exists as many developing countries continue to face traditional unresolved development problems, such as lack of diversification of economic activities, inadequate physical and social infrastructures, poor management of natural resources, external dependency, unequal income distribution, poverty and lack of opportunities for large segments of the population (King and Buchert, 1999).

[2] The group of recipients has been newly defined by OECD's DAC – the main donor's club – as it decided for statistical purposes to establish two separate lists of recipients (DAC, 1997), namely ODA recipients, defined as developing countries, and Official assistance recipients. Defined as countries in transition (some of the formers communist countries of the former USSR and Eastern Europe, and more advanced developing countries (12), including high-income oil-exporting countries and a few wealthy small islands-states and territories). The group's size has expanded or constricted for various reasons (political, economic) (King and Buchert, 1999).

objective was accelerated growth translated into higher rates of capital formation through the international transfer of resources (capital and know-how). This objective still prevails, particularly for low-income countries. Afterwards, rather than the transfer of resources per se, policy and institutional reform fostered economic growth (King and Buchert, 1999).

Concerning the Republic of Mozambique, it becomes official assistance recipient, since integrated in the developing country category that holds the socio-economic circumstances described above, and the fact of being a low-income country.

Facing multiple challenges, and aiming to achieve social and economic growth, Mozambique, a newly independent country, demanded the university to perform its role as well as its societal function, which includes: i. knowledge production, transmission and legitimation; ii. education of citizens and workers; and iii. production of social actors (Gumport, 2007). Among these, stands out the fulfilment of the growing needs of the Mozambican society by ensuring the training of human capital to develop the country.

In this regard, a wide range of instrumental claims about education in the development era, as crucial and a key determinant of the economic development itself, indisputably was advocated in national plans and by international agencies. This view was supported by the emergency of strong and compelling evidence of the importance of education and its critical role for nation-building and development (King and Buchert, 1999). This vision also fueled the grown interest in national higher education systems and global interdependence, with great impact in higher education institutions where, amongst others, fostered scholarly communication and institutional collaboration (Gumport, 2007).

Since EMU was not immune to the influences of the dynamics occurring in the World and in Mozambique, it has experienced periods of growth and constraint, crises and challenges that have reshaped its own development.

It was within this context that from an early stage, Eduardo Mondlane University established an interaction with the outside world. The massive exodus of Portuguese people, particularly Portuguese lecturers, right after the Independence of Mozambique in 1975, not only prevented the university to carry on its operations and accomplish its teaching mission, but contributed to the opening of the university to the world in these early years betting on international cooperation in order to comply with the national interest (UEM, 1998). Whereas teaching staff was reduced to only 10 professionals, the student population diminished drastically from 2,433 students in 1975 to 750 students in 1978 (UEM, 1991).

Through the establishment of international cooperation, EMU hired foreign lecturers under cooperation arrangements, specifically international cooperation programmes. Moreover, EMU benefited from agreements with Eastern European countries such as the Union of Soviet Socialist Republics (USSR) and the German Democratic Republic, and from agreements with the Netherlands and Sweden, which provided lecturers and regularly ensured their replacement (Mendes, 1982; Juvane & Van Baren, 1996). Moreover, promising young Mozambicans were sent to study abroad in order to gradually replace foreign teachers (Mendes, 1982). In this regard, King and Buchert (1999) stated that for several decades technical assistance has been used consistently by international funding and technical assistance agencies as the main instrument for capacity building.

The interaction between Eduardo Mondlane University and national, regional, and international actors interested in promoting higher education in Mozambique increased after 1976. The cooperation between EMU and the Netherlands and Sweden, which began in 1976 and 1978, respectively, and lasted more than 40 years, is example of a long-lasting cooperation between the institution and foreign governments (Juvane & Van Baren, 1996; Kruse, Tvedten, Tedre & Rosário, 2017). An increasing number of international and Mozambican actors, both public and private, including local and foreign governments, non-governmental organisations, government agencies, businesses, higher education institutions, and others, played a role in the development of the university. The interaction between EMU and those actors assumed various forms, and it was established at three levels, national, regional and international.

At the national level, EMU interacted with state agencies, educational institutions, banking and credit institutions, public and private enterprises, and non-governmental organisations (*Direcção de Finanças & Gabinete de Planificação*, 2012, p. 49) within the context of the institutional development agenda for the provision of various services, such as offering internship opportunities, and awarding scholarships and other awards to the best students, just to name a few.

At the regional level, EMU established cooperation agreements with other universities, aimed at strengthening partnerships in the academic, scientific, and sociocultural domains. At the international level, EMU interacted with several governments, institutions, and international organisations (e.g., Sweden, the Netherlands, Italy, Portugal, Belgium, Cuba, the Union of Soviet Socialist Republics, China, and others) for training in teaching, research, extension, and management domains. The variety of support the university received from this cooperation included short- and long-term training, the opening of new undergraduate and graduate training courses, the financing of scholarships and internships, the acquisition of equipment and library materials, and the construction and rehabilitation of infrastructure (*Direcção de Finanças & Gabinete de Planificação*, 2014, p. 95).

EMU interacted with several foreign governments and development agencies and received from them massive and varied support within the framework of development aid, which included human, material, technical, and financial support (Mário, Fry, Levey, & Chilundo, 2003). A considerable amount was disbursed by these countries for the implementation of programmes and projects, but general financial support was also provided. For instance, in one single programme, from 1978 to 2017, Sweden disbursed SEK 737,419,000 for institutional support and research capacity building by training academic staff at the master's and PhD levels (Kruse, Tvedten, Tedre, & Rosário, 2017). From 2008 to 2015, the Netherlands made available USD 11,056,052 for strengthening institutional capacity, including technical assistance, teacher training, and support for teaching effectiveness (UEM, 2009; UEM, 2010; UEM, 2013a; UEM, 2014; UEM, 2015; UEM, 2016). The referred amount is far behind the total amount disbursed from 1976 onwards when the cooperation with EMU has started. Between 2008 and 2018, Belgium disbursed nearly EUR 7,540,000 to empower EMU to better fulfil its role as development actor within the context of Mozambican society (Dhaene & Taela, 2018). As for the World Bank, they made available USD 191,220,000 through various projects between 1988 and 2010 (World Bank, 2020).

Given the amount of support directed to the university though various means with specific goals, the environmental condition for change and university transformation were created. The evaluation of the historical development path of Eduardo Mondlane University will be performed based on the assessment of internal and external actors on the occurrence of events recorded in individual and collective memories. Memory is translated here as the ability of people to remember the main events that occurred in this historical journey. The rigour of memory can be validated not by the multiple occurrences of moments, but by the confluence of different actors and memories at that moment in which historical memories are shared. Memory, understood as a text to be deciphered, the result of writing that takes place in the condition of reminiscence, would thus be the possibility of accessing, in the present, the event that occurred in other times (Farias, 2008, as cited in Ferrarini and Magalhães, 2014: 111 and 112). Memory is constituted within a universe that precedes it: the symbolic order (Bastos, 1999). The unconscious is constructed and modified in the relationship with others, it is relational, and so it cannot be considered an instance belonging to a single subject. Thus, memory is also conceived in the relationship, since it is through otherness that presides over its constitution and reorganisation (Ferrarini and Magalhães, 2014).

The way individuals remember events must be influenced by their personal interests and the socio-professional context in which they find themselves, which will eventually give shape to shared knowledge. Collective memory, seen as an inclusive project, is built from different narratives and interpretations, familiarities and estrangements, congruencies and distensions, agonisms and antagonisms (Costa e Silva, 2015).

Collective memory is built from the diversity that necessarily characterizes the group and is organised around what exists in common in heterogeneity, and thus gains centrality, acting as an amalgam of the group (Costa & Maciel, 2009, as cited in Costa e Silva, 2015).

Thus, the research interest was fueled by the fact that the proposition of the PADev experiment of EMU be a first attempt to inquiry on the university by performing a bottom-up subjective evaluation approach to assess the process of development of the university done by a local junior researcher. Moreover, a review on 240 leading education sector studies on Africa showed that all the studies conducted between 1990 and 1994 were all undertaken by an expatriate-led team with nominal representation or inclusion of local researchers, never as senior consultants or document authors (Samoff et al. 1996: 14, 15 and 18 in King and Buchert, 1999: 57). This statement is a clear indication of the need for local researcher to carry out education sector studies on their own issues to improve their very own contribution for the knowledge production on Africa education system and institutions, particularly universities.

This study is organised in seven major chapters. Chapter 1 introduces the study by pointing out the purposes of the study. Chapter 2 is the review of the relevant literature, where the theoretical framework underpinning the study is also discussed. It also addresses the historical development of higher education in Africa with special focus on Mozambique. Chapter 3 discusses the methodology with a focus on the research problem. It presents the research design and a brief description of ethical considerations. Chapter 4 presents and analyse the data from the PADev experiment at EMU, focusing on development interventions and changes that resulted from the implementation of the interventions, and the findings. Chapter 5 discusses the suitability of the PADev approach, based on PADev experiments and framework versus other participatory methods in a comparative perspective. Lastly, chapter 6 presents the study's conclusions.

1.1. Problem Statement

This study makes an intersection between development studies, higher education studies and organisational studies. This can be justified for two reasons. Firstly, due to the complex nature of the unit of analysis of the present study - Eduardo Mondane University - with regard to the characteristics and dynamics of its structure, processes, functions and relationships (internal, external and with the surrounding environment). Secondly, due to the line of research envisioned by the study, which, taking into account its main purpose, concerns the evaluation of the institution's development, from the perspective of the university community and the university's external partners.

Accordingly, the study applies a holistic approach for institutional development assessment to reconstruct the developmental history of the university and, in doing so, to examine the suitability of the PADev method in assessing the development of the institution vis-à-vis other evaluation methods.

The area of knowledge in which this research is anchored is the Sociology of Higher Education, which as a general discipline is interested in the organisational nature of groups in society (Gumport, 2007). As a specialty area it will focus on complex institutions and organisations like universities. Therefore, the Sociology of Higher Education takes academic organisations as units of study, subjected to historical investigation. Historical studies provide a perspective about educational systems of the past, connections between educational trends and change in other sectors of society, and the past-to-present development of existing systems (Clark, 2007: 12, as cited in Gumport, 2007). In the context of the current study, its scope does not include the higher education system as such, but an institution of higher education, and the approach is commendable as it aims to assess in a participatory way the development trajectory of the university in the last 40 decades.

Gumport (2007, p. 12) argues that historical studies of higher education provide systematised knowledge on ‘the past-to-present development of existing systems.’ In this case, a historical perspective on the assessment of the processes of change at EMU allowed for an understanding of past developments and prospects for future developments. Furthermore, a long-term developmental analysis can highlight fundamental institutional trajectories; new demands can also expose the potentialities and limitations of current institutional reforms.

Development studies have emerged in a very specific historical context defined by Myrdal (1969) as a combination of three elements: decolonisation, the emergence of new power elites in many developing countries with development-oriented agenda and the Cold War. However, experience in cooperation (notably through participatory

research) with social actors at various levels of society is pointed as a theme and a new area in which development studies can make significant contribution (Myrdal, 1969, as cited in King and Buchert, 1999). So PADev study about EMU gain its relevance as it fosters the participation of the development beneficiaries as the ones to perform the assessment and value their contribution.

There is an advantage in developmental analysis carried out over decades of time, according to Clark (2007:12), as it can highlight fundamental institutional trajectories and hence suggest the potentialities and limitations of current institutional forms as they face new demands (Clark, 2007: 12, as cited in Gumport, 2007). The study does not follow this line of inquiry, although the long-perspective methodological approach employed in the study - PADev – enabled a holistic view of change and development of a given institution over decades. The data generated through PADev might be used to assess the institutions' efficiency and further inform the university development lines. PADev places itself as an inclusive and empowering alternative evaluation method to better capture the institutional development trajectory that surpasses the capability of other traditional evaluation methods - expert-driven and donor funded approaches.

Following its development prospect, Eduardo Mondlane University has undergone a series of reforms and changes in its organisation, structure, and functioning since Independence, all of which have driven its development. Nevertheless, there is no documented evidence that these changes have been assessed in a systematic and comprehensive manner so as to provide an overview of the development of the university and especially its interaction with Mozambican society and the outside world. There is no evidence that the existing knowledge about the factors that have influenced change and development in the university has been systematised. Isolated evaluation practices of foreign development interventions that have taken place, mainly demanded by donor countries and foreign development cooperation agencies, are well documented by the evaluation missions (Mendes, 1982; Juvane & Van Baren, 1996; Smart & Bomba Júnior, 1997; Svensson et al., 2003; Boeren et al., 2006; Costa & Nooijer, 2006; Matos & Van Baren, 2007; Van Baren & Mosca, 2012; Kruse et al., 2017; Dhaene et al., 2017; Dhaene & Taela, 2018). However, these evaluations are focused on individual projects of limited duration and scope, and they are often donor-oriented and donor-driven, with a short-term perspective reflecting an external view, and they often miss the changes that have occurred over time. They lack a holistic view, a comprehensive picture of the development of Eduardo Mondlane University, especially its interaction with Mozambican society, and the input of the great variety of Mozambican stakeholders within and outside the university, which makes it impossible to have a broad perspective on the impact of the various interventions on the development of the university. Whilst several mission and evaluation reports on specific interventions – mainly programmes or projects, and development reports on

specific organisational interventions – are available, evidence of evaluation initiatives carried out by the university itself aiming to assess developmental interventions or the institution's development is scarce. If the current knowledge about change and development of Eduardo Mondlane University can only be derived from the literature (existing evaluation reports) there clearly is a knowledge gap.

On the other hand, there is a long-standing institutionalised tradition of organising annual meetings, where the university rector informs the university community, society as a whole, and the cooperation partners concerning the development of the university, referring to the previous year, with attention paid to the challenges faced and often reflecting on perspectives for the near future. These reports are fed by three sources: (i) data delivered by different units and bodies of EMU, (ii) data collected during work visits, and (iii) data arising from the monitoring and evaluation processes of the institution's annual activity plan. The reports focus on the three missions of the university, namely teaching and learning, research, and extension and innovation. The reports are presented using a comparative analysis (three years) that might potentially provide an assessment of the institution. However, an overall analysis of these annual reflections is so far missing.

Although donors have frequently assessed their own interventions, a systematic assessment of the various forms of support has not been conducted by the university. This raises the question of whether indeed the expected changes have occurred, at the times expected, in consonance with the overall institutional policy and the sectorial country's policy, and in the wider context of regional and global developments.

Further development of EMU should ideally be based on knowledge and understanding of past developments and future scenarios. However, the existing assessments by the Mozambican authorities and the evaluations of donors are not sufficient to provide these. A holistic evaluation tool that provides a more comprehensive, long-term, and internal perspective on the development of the institution is needed. Moreover, the assessment outcome can be useful at least in two ways: firstly, to provide information on improvements in institutional decision-making processes, and, secondly, to improve university leadership interaction with other key actors. There is no empirical evidence in the PADev literature of the use of this approach to assess the development of a higher education institution like EMU. The study transposes the PADev method, originally used in rural contexts, particularly in rural communities in Northern Ghana and Southern Burkina-Faso, to the urban context and an institution for the production, dissemination and validation of higher-level knowledge, such as in this case Eduardo Mondlane University. PADev enabled the participatory assessment of the development of a complex institution of the nature of a university, with Eduardo Mondlane University being the unit of analysis, as previously mentioned.

The concern about the lack of quality and design flaws of evaluation practices in and around development activities, that lead to the need to emphasize on rigorous and evidence-based approaches based on research practices from the medical field employing randomised controlled trials evaluation design, that gained place in the monitoring and evaluation sector and conquering the interest of several larger donor agencies internationally (Pitmain, Feinstein & Ingram, 2005; Bertrand, Duflo & Mullainathan, 2004, as cited in Dietz et al, 2013). In addition, within NGOs circle there was this understanding that many evaluations focus on too narrowly focused on input and output and not enough on long-term impact, and projects are frequently evaluated in isolation of wider development in the region, and the opinions of the supposed beneficiaries are largely neglected. Therefore, become relevant the need to develop a method to make it possible for local people in developing countries to express their assessment of development and change, that is, a method for impact measurement based on a long-term perspective and from beneficiary's point of view as opposed to the clinical, value-free and expert-driven approaches of the randomised control trials approach (Dietz et al, 2013).

The basic premise that might lead to acknowledging PADev - a subjective type of evaluation - as an alternative method that makes it possible for local people in developing countries to express their assessment of development and change was drawn from Dietz and colleagues (2013). PADev is here seen as a method for impact measurement based on a long-term perspective and from a beneficiary's point of view, which provides a holistic 'big picture' of development and allows one to see the contributions of different development initiatives in the context of a wider societal change.

Although the focus of the PADev approach tends to be community-based, where local people are the primary focus, at EMU PADev was employed as a bottom-up participatory evaluation approach by engaging staff members and other university stakeholders in assessing the development of the institution and its impact on its surroundings. The use of the PADev approach to trace the development trajectory of the university in the period under study was based on the assumption that PADev contributes to building up an environment that promotes organisational learning, ensures inclusion of multiple participants in the production of knowledge, and empowers those who carry out the evaluation process, the stakeholders. Moreover, PADev tools have enabled the identification of the factors that have contributed to the development of the institution, the changes that have occurred, and the actors that influenced change. The knowledge generated through the employment of the method is grounded in peoples' experience and perceptions of the change and development of the institution. The method is also meant to enable the measurement of the impact of these factors on the university's development as perceived by the university's stakeholders, as well as to build an internal perspective on the impact of the university on its surroundings.

For the possibilities it presents, PADev stands out if compared to other traditional evaluation methods that are characterised by being short-term, and almost always driven by the donor or financier, with a limited scope focused on inputs and outputs, without worrying about the long-term impact. Therefore, the technical limitations of the methods centre on the fact that they present a clinical perspective, are value-free and guided by experts, and are comparable to randomised clinical trial approaches. That is the case of summative evaluation and formative evaluation. The summative evaluation focuses on results of a given performance, programme or organisation. Summative evaluation intends to create learning and thereby improve the programme in question, to control its performance in terms of accountability (Hansen, 2005).

Evaluation studies deal with more objective data and not with data on the nature of memory that supports this assessment. Furthermore, projects are often evaluated in isolation without taking into account broader developments in the region, and the views of supposed beneficiaries are largely neglected. PADev also stands out regarding its participatory nature if compared with other evaluation methodologies such as *utilisation-focused evaluation* by Patton (1997), and *realistic evaluation* by Pawson and Tilley (1997). The *utilisation-focused evaluation* primary aim is not to promote participatory practices but rather to provide decision-makers, or intended users, with information they deem necessary. The aim of *realistic evaluation* is to find out why a programme works for whom, and in what circumstances, therefore it is not explicitly participatory (Gregory, 200).

PADev method can be examined as to whether it fits the University's development assessment and whether in comparison with other evaluation methods it contributes best to understanding the past, present and future development of the university.

PADev is a composite construct that comprises three indicators, namely participation, evaluation, and development, which will be further discussed in a later chapter (literature review) in relation to some premises: poverty context, bottom-up, long-term and holistic grounded approach. All four premises are linked to the issues of stakeholders' participation, assessment of change, and historical account on development of a higher education institution in a post-colonial setting. From the indicators stated by the method, it was possible to derive questions that shed light on the nature of the university and its impact on Mozambican society. The objective of the study is not to measure the effectiveness of the method, which would depend on carrying out countless experiments involving the academic, research and administrative units of EMU, but rather to show how PADev, whose viability is based on memory of the participants, was applied at EMU and served the purposes of the research.

The PADev experiment at Eduardo Mondlane University has provided a basis for examining the suitability of this method for effective participatory assessment of the development of the institution. Therefore, the PADev principles were empirically tested though the application of the method to perform the data collection analysis, and validation.

Moreover, the university transformation, particularly in the post-Independence period was mostly driven by external sources and actors. Looking at the total support that Dutch development aid provided to higher education in Africa, Mozambique/EMU has been the most important receiving party of that support. But the Netherlands was not the only provider of support: after the withdrawal of almost all Portuguese staff at EMU in 1975, support came from many foreign agencies.

However, there has never been a research project studying the development of EMU and the impact of the many supporting agencies, experts and projects. So far, as stated earlier, the written documentation about EMU's development mainly came from some external evaluation studies, but those focused on single programmes or projects. The university itself also did not have sufficient archival written material to do a serious 'development history of an African university'.

EMU is in our view a good case study as it is seen as a developmental university and its development lines followed the global trends of growth and expansion that allowed to record increment in enrolment, increase in the size of campuses, the founding of new research capacity, the size and composition of faculty staff, diversification of the student population, knowledge growth across disciplines, library holdings, sponsored research, the establishment and growth in the number of administrators, and other improvements that university transformation if compared with its earlier stages.

To analyse how the university reached this transformation stage required the use of a comprehensive methodological approach that enabled to capture all the driving forces that influenced change and paved the development of the university in its complex organisation and structure.

Since it lacks evidence that such a holistic evaluation approach was ever before employed to assess development at EMU and the impact of development interventions at EMU, the following main research question was formulated:

i. In what ways can the PADev method of assessing development and change at EMU in a participatory way be effective in measuring the impact of development interventions at EMU?

Since the study's aim was to examine the suitability of the employment of the PADev method, additional questions were also formulated:

ii. Which development interventions were implemented at Eduardo Mondlane University between 1976 and 2016?
iii. How did the development interventions change Eduardo Mondlane University between 1976 and 2016?
iv. What is the stakeholders' assessment of the impact of the development interventions at EMU?

The problem statement, and the unit of analysis were both presented through diagrammatic representations (See figures 1 and 2) for a better understanding of the research purpose.

1.2.1. Diagrammatic Representation of the Problem Statement

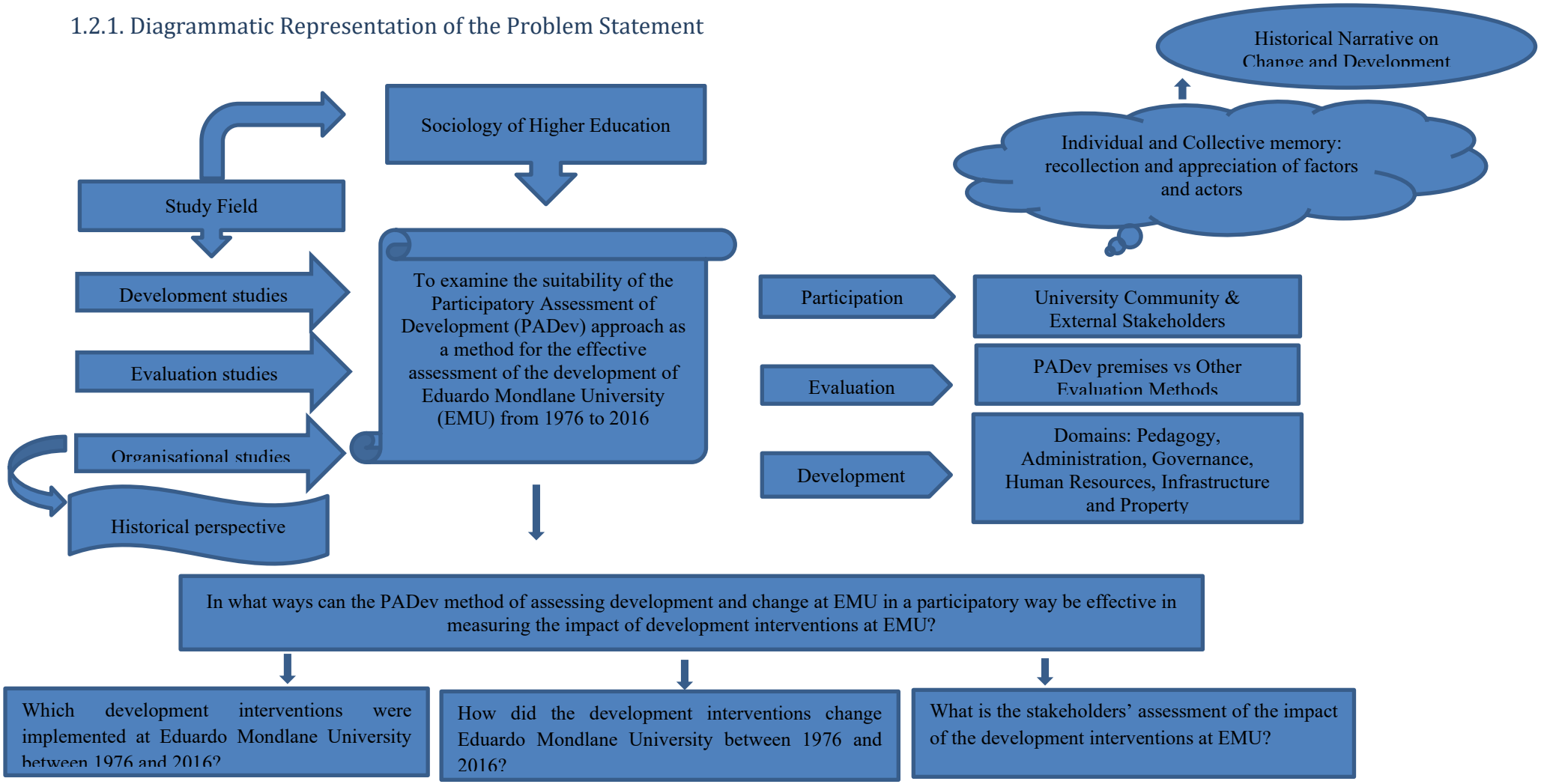

Figure 1: Diagrammatic Representation of the Problem Statement

1.2.2. Diagrammatic Representation of the Unit of Analysis

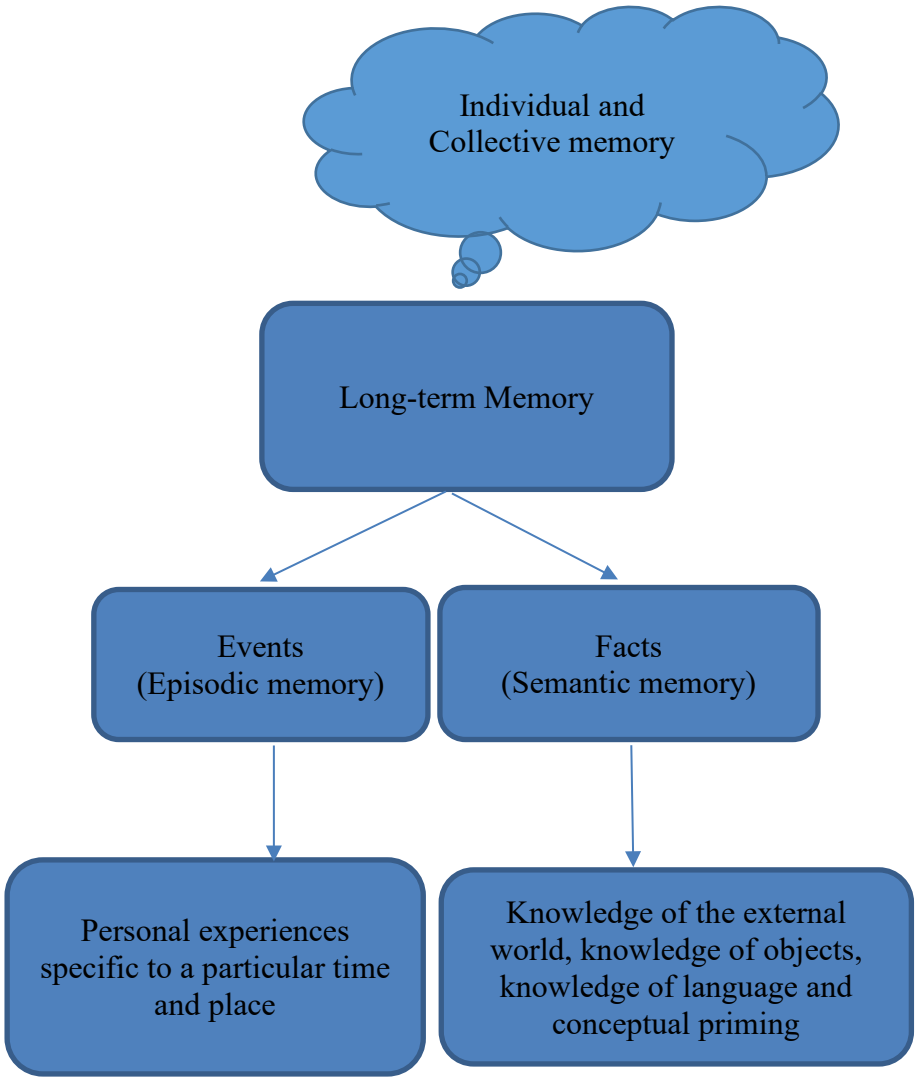

Figure 2: Diagrammatic Representation of the Unit of Analysis

CHAPTER 2

Literature Review

Chapter two first addresses the Participatory Evaluation Theory, a variant of Evaluation Theory, whereas participatory assessment of development (PADev) approach is integrated. From the proposed theory, three main concepts, specifically the concepts of "evaluation", "participation" and "development" are discussed in relation to PADev principles that strives change assessment in poverty context, bottom-up approach concerning participation, long-term perspective towards inclusion, and holistic view that trace the development path. The underlying principles concerning PADev approach which results in the production of knowledge on institutional change and development is also presented. The path-dependence theory is employed in an attempt to trace back the development path of EMU to early contingent event.

As far as knowledge production is concerned, the study departs from two epistemological assumptions, specifically based on Social Realism, and the Institutional Change. From the discussion on how social reality is constructed, following how the institutional change is perceived to occur, and knowledge about the sources and the direction of change, some constructs emerged and properly addressed, namely the construct "reality", "institution" and "change". Moreover, it also discusses the various participatory evaluation approaches, stressing their potentialities and limitations in assessing change and development. Second, the chapter discusses the historical development of higher education in Africa with a special focus on Mozambique as the context for testing the usefulness and effectiveness of the PADev method.

2.1. Participatory Evaluation Theory

The theoretical perspective that has led the study, was the Participatory Evaluation theory.

Scriven (1998, p. 15) distinguished two types of evaluation theory. The normative theories are about what evaluation should do or be, or how it should be conceived or defined. The descriptive theories are about what evaluation types there are (classificatory theories) and what they in fact do, or have done, or why or how they did or do that (explanatory theories). According to the author, an evaluation must, by definition, lead to a particular type of conclusion – one about merit, worth, or significance or value of things (Scriven 1998, p. 16), judged according to appropriate criteria, with those criteria explicated and justified (House, 1993, as cited in Garaway, 1995, p. 85). Evaluation also requires a synthesis of facts and values in the determination of merit, worth, or value (Scriven, 1998).

Participatory Evaluation theory is a variant of evaluation theory, which is concerned with valuing, knowledge production, knowledge use, and the nature of the evaluand (Shadish, 1998).

Participatory Evaluation as a concept is attributed different interpretations, depending on whether evaluation is seen as a process or an end. Cousins and Earl (1992, p. 399) defined Participatory Evaluation as an '*applied social research that involves a partnership between trained evaluation personnel and practice-based decision makers, organisation members with programme responsibility or people with a vital interest in the programme*', that is, the primary users. From this perspective, Participatory Evaluation better suits a project's evaluation when it seeks to understand innovations with a clear intention to inform and improve its implementation (Cousins & Earl, 1995).

A different conception is presented by Brunner and Guzman (1989), who define Participatory Evaluation as '*an educational process through which social groups produce action-oriented knowledge about their reality, clarify and articulate their norms and values, and reach a consensus about further actions*' (Brunner & Guzman, 1989, p. 11). Implicit in this definition is the idea of shared learning through this attempt at collective knowledge production, which also characterizes the approach employed in the current study: the PADev approach.

Chouinard (2013, p. 245) shares a similar view when defining Participatory Evaluation as a '*learning system*[3] *where stakeholders work alongside evaluators in identifying issues, carrying out research tasks, and responding to research findings and results.*' Learning takes place in the process of participation, in which the evaluation participants develop relationships amongst themselves. This occurs, according to Oakley (1991), on a practical or informational level concerning the programme, the organisation, the context, and the evaluation itself, as well as on a conceptual or reflective level concerning relationships to self and others (Oakley, 1991, as cited in Chouinard, 2013).

Recent literature discussing evaluation practices highlights stakeholder involvement and active engagement in the evaluation process. Stakeholders' involvement includes, amongst others, collaborative, participatory, and empowerment evaluation (Fetterman et al., 2014).

The key point about participatory evaluation is not which methods to use but whose voices to include, how to include them, and determining who will speak for whom (Greene, 2000, as cited in Chouinard, 2013).

[3] A concept by Cousin and Earl (1992).

A distinguishing characteristic of participatory evaluation is its focus on stakeholders' perspectives towards evaluation and the evaluation principles and process. Stakeholder participation in this case can be seen as a principle, and the degree of the stakeholders' participation affects the evaluation process.

2.1.1. Participatory Assessment of Development - PADev

Participatory assessment of development, abbreviated as PADev, is an evaluation approach that enables the study of changes in a region over a specified period equal to or longer than 15 years; which seeks to extract the collective experience of change from a given population, and information about development interventions and initiatives that played a role in their experiences of change and impacts afterwards; which links specific interventions to specific changes; and where assessment is performed by the representatives of the local population, with external evaluators acting as workshop facilitators in a context where beneficiaries are sharing their experiences of change (Dietz et al., 2013; Dietz, Obeng, Obure, & Zaal, 2009).

Four principles characterize the PADev approach: (i) departure from a poverty context, and focusing on people's own assessment, valuation, and interpretation of life changes, and what is causal to those changes; (ii) a bottom-up approach, based on individual and group discussions among presumed beneficiaries of development interventions; (iii) an approach that takes a long-term perspective, spanning a few decades, so as to incorporate the experiences, knowledge, and perceptions of different age groups within the population; and (iv) a perspective that strives for holism, in the sense of keeping an eye open to all sorts of development initiatives, irrespective of sector and agency (Dietz, 2012).

The concept of *evaluation* was related to the first PADev principle since the participants, either individually or in group, performed a subjective assessment of the institutional changes they experienced or had factual knowledge as being positive or negative. The assessment was done by relating interventions to the changes, and valuing the changes based on their own perception on the change effects.

The concept of *participation* was linked to the second PADev principle once the sampled units were selected from the presumption that development interventions implemented at EMU, regardless of its type, benefited the whole university community, or particular sectors (administrative and services) or academic and research units.

The concept of *development* was related to the third and fourth PADev principles. Development is a stage that can be traced back to narrate its path, and, in the process, experiences, knowledge and perceptions of the beneficiaries of the development interventions can be captured. Time is an important dimension in this process, which

demands a sampling composition that attends age groups to cover the time span to reconstruct the development history. In this case, taking into account the period under analysis, nearly 40 decades should be covered to report all sorts of development initiatives taking place at EMU.

The PADev framework is presented in figure 3 below, showing the relationship between important historical events, positive and negative changes, and development interventions. 'Changes' is placed in between events and development interventions, as the first and the third might both influence change.

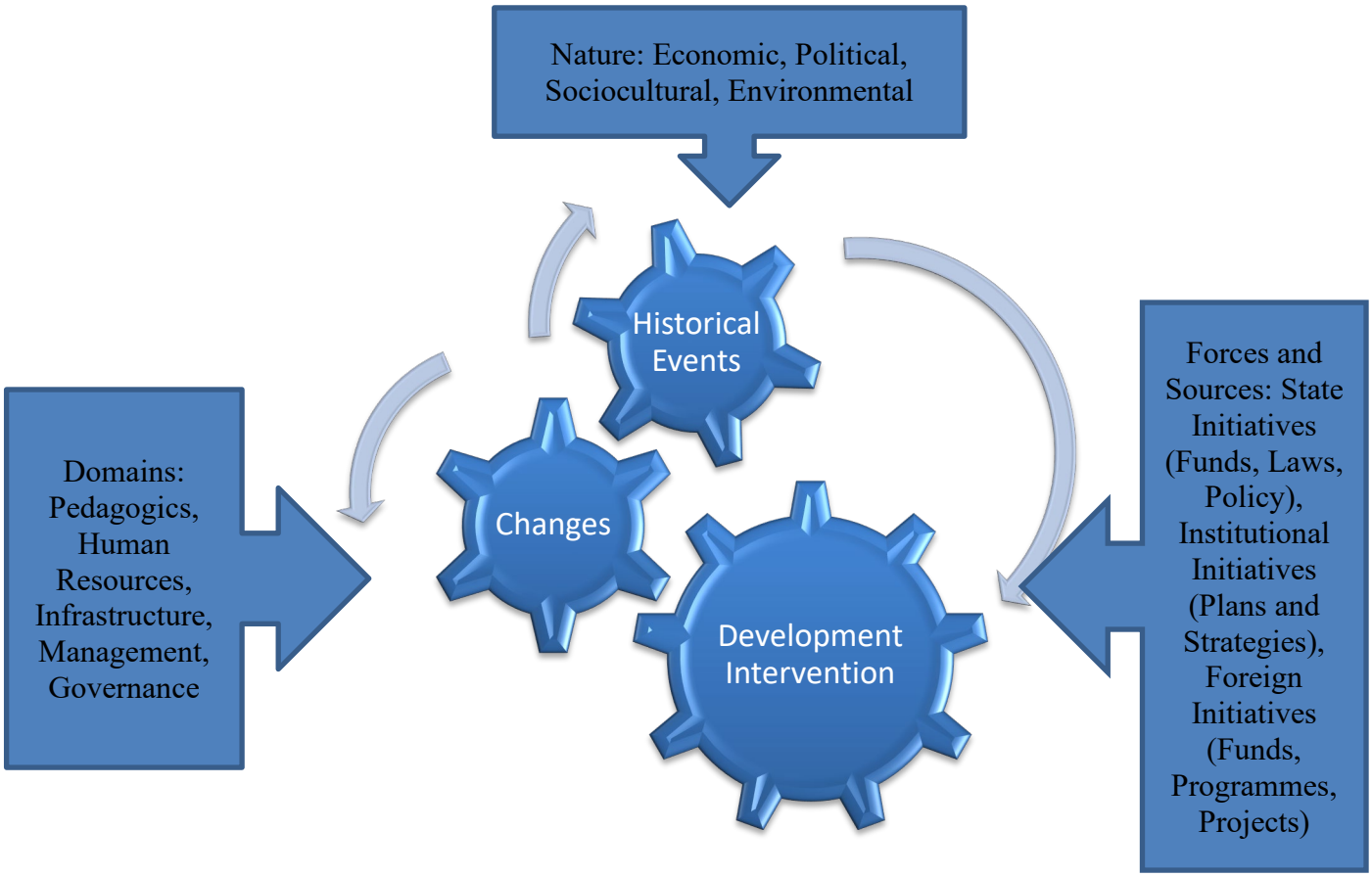

Figure 3: PADev Framework

Historical events are presented in four main categories: economic, political, sociocultural, and environmental. The occurrence of events might or might not influence specific changes within the institutions in various domains such as pedagogics, human resources, infrastructure, management, and governance. External and local development interventions or initiatives coming from collective entities or individuals vary. These include programmes, projects, funds, policy and legislation, and sectoral plans and strategies. The implementation of development intervention might or might not influence changes and promote institutional development.

In our case, the study's object is not a region, but a university, and it involves the listing of external events that had an impact on the university, the inventory of the major changes that occurred at the university, and the identification of development interventions as well as their impact on the institution's transformation. They all enable the reconstruction of the development history of the institution from inside. Participants' living memories become a key tool, taking into account the time range in development assessment.

2.1.2. Path Dependence Theory

The holistic perspective and historical recollection of the development path of Eduardo Mondlane University provided by the PADev tools and methods allowed to analyse whether path dependence mostly used by historical sociologists, and historically-oriented researchers (Mahoney, 2000) might account for the comprehension of the transformation of the university from the post-Independence period onwards. PADev tool enables the reconstruction of the most important historical events in the research site, and asses their most important effects on the community, in this particular case in the institution. Besides, path dependence stresses the importance of early events for later occurrences. It was relevant to find out if there was a contingent event that triggered a subsequent sequence amongst the recalled events by study participants that led to the current pattern the university presents.

Concerning the conceptualization of path dependence, Mahoney (2020) point out two trends. Some historical sociologists such as Swell (1996)[4] and Nooteboom (1997)[5] employ a broad conceptualization, defending the argument that past events influence future events. According to Sewell's influential definition, path dependence means 'that what has happened at an earlier point in time will affect the possible outcomes of a sequence of events occurring at a later point in time' (Swell, 1996: 262-263 as cited in Mahoney, 2020: 510). In the same line, Nooteboom argues that organisational evolution 'is path-dependent in the usual sense that directions for future development are foreclosed or inhibited by directions taken in past development' (Nooteboom, 1997, as cited in Mahoney, 2020: 510). This assertion led to the assumption that implicitly, most historical sociologists employ a more specific understanding of path dependence that goes beyond the basic notion that past choices affect future processes, to assess how

[4] Sewell, W.H. (1996), 'Three temporalities: toward an eventual sociology', in T.J. McDonald (ed.), *The Historic Turn in the Human Sciences*, Ann Arbor, MI: University of Michigan Press, pp. 245–281.

[5] Nooteboom, Bart (1997), "Path Dependence of Knowledge: Implications for the Theory of the Firm," in Lars Magnusson and Jan Ottosson (Editors), *Evolutionary Economics and Path Dependence*, Edward Elgar Publishing, n. 57.

process, sequence, and temporality can be best incorporated into social explanation. (Mahoney, 2020).

As stated by Mahoney (2000), path dependence is related to historical sequences in which contingent events set into motion institutional patterns or event chains have deterministic properties. Therefore, it highlights the importance of early events for later occurrences, assuming a causation flow from contingent historical events to general processes of potentially broad significance.

To the author, the identification of path dependence involves both tracing a given outcome back to a particular set of historical events, and showing how these events are themselves contingent occurrences that cannot be explained on the basis of prior historical conditions (Mahoney, 2000). Somehow the current study follows this approach, since its prior goal was to analyse the recollection of events gathered, regardless of the presence or absence of contingency, the type of sequence (self-reinforcing or reactive) and deterministic properties and explain whether and how the events influenced change and development of the university during the period under analysis.

Whereas self-reinforcing sequences are characterised by the formation and long-term reproduction of a given institutional pattern, exhibiting what economists call 'increasing returns'[6], reactive sequences are the chains of temporally ordered and causally connected events, to the extent that each event within the sequence is in part a reaction to temporally antecedent events. That is, early events trigger subsequent development not by reproducing a given pattern but by setting in motion a chain of tightly linked reactions and counter-reactions. Early events trigger subsequent development not by reproducing a given pattern but by setting in motion a chain of tightly linked reactions and counter-reactions. The initial event that sets into motion the overall chain of reactions is contingent. Each event in the sequence is both a reaction to antecedent events and a cause of subsequent events. Thus, each step in the chain is "dependent" on prior steps and the overall chain of events can be seen as a path leading up to a possible outcome. Reactive sequence follows a specifically path-dependent trajectory, and the historical event that sets the chain into motion must have properties of contingency. This is a step ahead from representing simply a sequence of causally connected events, Furthermore, the overall event chain itself must be marked by processes of 'inherent sequentiality' (Mahoney, 2000).

The basic idea underlying inherent sequentiality is Abbott's notion that an "inherent logic of events" characterizes enchained sequences. Inherent sequentiality enables a

[6] With increasing returns, an institutional pattern, once adopted delivers increasing benefits with its continued adoption, and thus over time it becomes more and more difficult to transform the pattern or select previously available options, even if these alternative options would have been more "efficient." (Mahoney, 2020).

fine-grained analysis of the 'causal mechanisms'[7] that link initial conditions with final outcomes, and connect all temporally consecutive events in the sequence. In a reactive sequence, each intermediary event represents a causal mechanism that links an initial breakpoint with a final outcome. The final component of inherent sequentiality is a clear temporal ordering among events in a sequence. A step further, as proposed by historical sociologists, would be, as stated by Mahoney (2000), to perform narrative analysis, which portrays social phenomena as 'stories' that unfold in a clear chronological order. The chronological ordering of events in narrative is a key reason why reactive sequences appear to follow an inherent logic in which one event naturally leads to another.

Mahoney (2000) further explains that path dependence occurs when a contingent historical event triggers a subsequent sequence that follows a relatively deterministic pattern. In the case of a self-reinforcing sequence, the contingent period corresponds with the initial adoption of a particular institutional arrangement, while the deterministic pattern corresponds with the stable reproduction of this institution over time. By contrast, in the case of a reactive sequence, the contingent period corresponds with a key breakpoint in history, while the deterministic pattern corresponds with a series of reactions that logically follow from this breakpoint. Events in a path-dependent reactive sequence are often necessary or sufficient conditions for subsequent events.

Thus, to Goldstone (1998) 'Path dependence is a property of a system such that the outcome over a period of time is not determined by any particular set of initial conditions. Rather, a system that exhibits path dependency is one in which outcomes are related stochastically to initial conditions' (Goldstone, 1998: 853, as cited in Mahoney, 2000: 511).

It is important to acknowledge, as stated by Sarkis, Zhu, and Lai (2011), which, at the organisational level, path dependence has been well articulated for organisational change, as well as interorganisational change. Likewise, David (2007), argues that path dependence can explain processes of change and developmental sequences, since a dynamic process whose evolution is governed by its own history is path dependent. The conceptualization of path dependence as a branching process, implies to looking for critical bifurcations in the sequence of development, and for the factors that conditioned the actions taken at those historical junctures. In a branching process, the prevailing probabilities of transitions among states are functions of the sequence of past transient states that the system has visited (David, 2007: 5).

Since plausible claims can be generated through path-dependence logic, a sequence analysis was performed to ensure whether the current state of the institution and the

[7] 'Causal mechanisms' is seen by Mahoney (2000) as the intervening processes through which one variable exerts a causal effect on another variable (Mahoney, 2000: 531).

nature of interventions and/or initiatives implemented in the institutions were determined by the conditions resulted by the occurrence of the referred events.

2.1.3. Social Realism and Institutional Change: An epistemological assumption on knowledge production

Concerning the production of knowledge and considering the chosen method to gather information about change and development of a higher education institution, the understanding of the knowledge construction process and perceptions on change become relevant. Thus, whereas Social Realism Theory describes how the intended knowledge is constructed, Institutional Theory of Change instead explains the changing process within institutions answering what, how, who and why change occurs.

2.1.3.1 Social Realism

The joint reconstruction of the history of development of EMU from 1976 to 2016 by the relevant stakeholders implies understanding how they see, interpret, and make statements about the reality they have to judge, and assessing how they construct knowledge about an objective social reality, the reality the study aims to capture in order to establish institutional facts.[8] The facts that make up the development history of the institution can be categorised as social facts, as defined by Searle (1995, p. 26) to refer to any fact involving collective intentionality and typified as institutional facts.

According to Searle (1995), *social realism* is an ontological theory that explains how social reality is objectively constructed. Realism is defined as the view that the world exists independently of our representation of it, that is, independent of any statement, beliefs, perceptions, thoughts, etc. It means that reality exists outside of our system of representation and does not depend on intentionality in any form (Searle, 1995, pp. 153-154).

Social realism emphasises that there is a way that things are, which is logically independent of all human representations and is independent of how we represent how things are. When realism states that reality exists independently of consciousness and of other forms of representation, the claim is that reality is not logically constituted by representations, that there is no logical dependence (Searle, 1995).

Rational objectivity in knowledge is acknowledged as itself a fact, since subjects do actually have knowledge, but it is also recognised as a social phenomenon, something

[8] Facts that involve human institutions such as language and that depend on human agreement: a socially constructed reality (Searle, 1995, p. 2).

that subjects do in socio-historical context, and it is fallible rather than absolute or merely relative (Maton and Moore, 2000).

On the opposite side, stands the social constructivism perspective, which states that the social construction of something depends on contingent aspects of our social selves. It means that this thing could not have existed had we not built it, and we need not have built it at all, at least not in its present form (Boghossian, 2001)[9]. The author further explains his claim by arguing that had we been a different kind of society, had we had different needs, values, or interests, we might have built a different kind of thing, or built this society differently. The author's argument is based on the assumption that only a naturally existing object exists independently of us, and we did not have a hand in shaping it (Boghossian, 2001).

Realism can be understood as superseding constructivism. It signals a shift from viewing knowledge in terms of construction (we can construct the world as we see fit, free of the consequences of how the world will react back on that construction) towards a focus on its production within relatively autonomous fields of practice according to socially developed and applied procedures that may have both arbitrary and non-arbitrary bases.

Accordingly, social realism focuses on how knowledge is produced, and it is concerned with the sociality of knowledge in terms of how knowledge is created (social), emphasising that knowledge is more than simply produced, since its modalities held shape the world (realism), due to its objective nature (Maton and Moore, 2000).

A key aspect of the process of knowledge production and development is its sociality, the way in which people are related in that process, whether through direct engagement or indirectly through participation in a shared intellectual field (Maton and Moore, 2000).

The result of the stakeholders' involvement in evaluating is the production of knowledge claims, an objective knowledge about the development of EMU without anyone questioning their evaluation competencies: it is knowledge constructed on the basis of their collective memories and their experiences.

The sociology of knowledge states that history and experience inevitably enter into all forms of knowledge, whether or not it is produced by specialists within particular disciplinary traditions. Knowledge is seen as being social in the sense that it asserts that any claim to knowledge is premised on some idea of society. Therefore, as social interests shape the structuring of knowledge, social relations of power and interests are expressed in the organisation of knowledge. The process of embedding or giving

[9] http://paulboghossian.com/docs/Boghossian-Paul-socialconstruction1.pdf.

meaning to knowledge takes into consideration the wider social and historical contexts which shape particular communities (Young, 2008, p. 11).

In social realist perspective knowledge producing involves both relational structures of concepts and methods for relating these to the empirical world and actors positioned in institutions within specific social and historical contexts (Maton and Moore, 2000). Moreover, according to Maton and Moore (2000), knowledge involves more than social power, it also involves epistemic power.

However, there is criticism from Moore and Muller (1999) vis-à-vis the perspectives that invoke experience as being the foundation of all knowledge, and therefore the basis for claiming that all knowledge or truth claims are equal, whatever their origin: common sense, folk tradition, laboratory-based scientific research, or systematic disciplinary knowledge. This is the case of voice discourse approaches, which do not distinguish knowledge from experience and confer equal validity to the perspectives of all groups, arguing that knowledge that can, in some objective sense, be independent of the social position of the knower is untenable (Moore & Muller, 1999, as cited in Young, 2008, p. 9).

Moore (2000:3) claims that knowledge is socially produced, but at the same time has the capacity to transcend the social conditions under which it is produced. This is to say that knowledge is both social and has emergent properties that transcend and react back on social contexts and practices.

Having said that, PADev, as a data production method, proposes following in the opposite direction, away from a 'voice' or discourse perspective. PADev is based on the 'social realist' idea that people can (collectively) know about their experiences with social reality and can share those insights with others, although always as a self-perceived phenomenon.

In this context, stakeholders' participation in the evaluation process is taken into perspective, and PADev as a participatory approach to evaluation is employed in this study. The PADev approach is placed within the frame of participatory-evaluation-research design and theory, in which the study is grounded.

2.1.3.2. Institutional Theory of Change

The current study intends, amongst others, to understand why and how change took place in the institution, and what sources or forces influenced and affected the change process, regardless the direction of the change. That is, whether it was desired change or not. Different aspects are taken into consideration in the attempt to understand

change at EMU, which includes the conditions for change, the nature and the focus of change.

Since the study focuses on perceiving change that took place at an institutional level, it becomes relevant to point out some notions of institution. Whereas Bush (1987) defines an institution as 'a set of socially prescribed patterns of correlated behaviour' (p. 1076), institutionalists argue that all human behaviour within a community is ultimately subject to social prescriptions or proscriptions, particularly all problem-solving (purposive) behaviour, since these are perceived to be vital to the survival of the community.

North (1990: 3) defines institutions as '… the rules of the game in a society, or more formally (…) the humanly devised constraints that shape human interaction' (North, 1990, p. 3, as cited in Kingston & Caballero, 2009). Thus, institutions provide a structure to everyday life and include both formal rules such as laws and constitutions, and informal constraints such as conventions and norms (Kingston & Caballero, 2008).

Both notions complement each other as each address institutions as typified behaviour and standardised human interaction developed and structured socially, and subject to some constraints. In social systems this typifies behaviour and standardised interactions are present in different domains of social life, such as economic, political, and social domains, that form a set of interrelated institutions.

According to Elsner (2021), Bush's theoretical scheme of institutional forms and dynamics, developed in the 1980s, had a great impact on institutionalist thinking on the process and variants of institutional change (Elsner, 2021). For Bush (1987), the theory of institutional change must begin with a theoretical formulation of the institutional structure, as the society determines the character of the institutional structure based on the significance of their value system. Moreover, institutional change is seen by Campbell as a fundamental force of social change (Campbell, 2004: 1, as cited in Tang, 2012).

Concerning the higher education setting, Kezar (2001) introduces six higher education models of change, based on an extensive review of research on change conducted within higher education, namely evolutionary, teleological, life cycle, dialectical, social cognition, and cultural. The main assumption underlying the first model, the evolutionary approach towards change, is that change is a response to external circumstances, situational variables, and the environment faced by each organisation. For the second, the teleological theory, also called planned change models, change tends to be rational and linear and it occurs whenever leaders, change agents, and others see the necessity of change. The third, the life-cycle model, conceptualizes change as a natural part of human or organisational development, which includes stages of growth, organisational maturity, and organisational decline. The fourth model, the dialectical

model, also known as political model, envisions change as the result of clashing ideologies or belief systems. Change processes quite often involve bargaining, consciousness-raising, persuasion, influence, and power, and social movement. The fifth, the social cognition model, describes change as being tied to learning and mental processes such as sense making and mental models. Thus, change occurs because individuals see the need to grow, learn, and change their behaviour. According to the sixth model, the cultural model, change tends to be long-term and slow as it occurs naturally as a response to alterations in the human environment. That is, change is more likely to entail alteration of values, beliefs, myths, and rituals (Morgan, 1986; Carnall, 1995; Carret et al., 1996l Levy and Merry, 1986; Bolman and Deal, 1991; Schein, 1985 as cited in Kezar, 2001). Amongst those, Kezar states that within higher education, changes are more likely to be explained through political, social cognition and cultural models. Whereas the political processes such as persuasion, informal negotiation, mediation, and coalition-building are seen as powerful strategies for creating change; through social cognition models the importance of altering mental models, learning, constructed interaction, and other processes for creating change are highlighted. The cultural models focus on the importance of symbolism, history and traditions, and institutional culture for facilitating change on campus (Conrad, 1978; Hearn, 1996; Eckel and Kezar, n.d.; Weick, 1995; Cohen and Maech, 1974, as cited in Kezar, 2001).

In an attempt to provide responses to the why, what, how and the target of change, Kezar (2001) argued that change can be characterised on the basis of forces or sources (external environment and internal environment), degree (first-order change: organisational development; second-order change: organisational transformation), timing (revolutionary, evolutionary), scale (individual, interpersonal and organisational level), focus (structure, process and attitude), responsiveness (adaptative, generative), intentionality (planned, unplanned), response time (proactive, reactive), involvement (active, static), and target (process, outcome). Each of these characteristics falls into a particular model of explaining changes, and they were further used as analytical categories to discuss PADev data concerning the characteristics of change that took place at EMU.

Regarding the forces and sources of change, Kezar (2001) states that both the interaction between the external environment and an organisation, as well as the internal sources that include gathering of surplus resources, readiness and willingness of a dominant coalition to endure change and transformational leadership are the major impetus for change. The author argued that whereas the planned change results from external factors, the impetus for the change is often internal (Kezar, 2001, p. 15).

Concerning the degree of change, the author differentiates first-order-change from second-order-change. The first involves minor adjustments in one or a few dimensions of the organisation at individual or group level. The latter entails change in the

organisations', underlying values or mission, culture, functioning processes, and structure, which is multidimensional, and multilevel as it affects individuals, groups and the overall institution. Whereas the fist-order-change leads towards organisational development, the second-order-change leads to organisational transformation and a paradigmatic shift towards the institution's philosophy, beliefs, values, structures, policies, and operations. The description of the second-order change also portrays both revolutionary and evolutionary change, if one considers the timing of change. The author stated that both revolutionary and evolutionary change affects the organisation's mission, culture and structure. However, whereas revolutionary change is sudden and drastic, evolutionary changes are long-term, natural, and alterations of the mission happens over time, newcomers influence culture change, and structure change with the retention of new people (Kezar, 2001).

Following the discussion about the categories of change, the Kezar referred to practices and processes as the indication of whether the change is at an individual, interpersonal or organisational level of scale (from the classification by Goodman; 1982). Individual change might include technology integration into the learning process. Interpersonal dynamics change as long as colleagues, departmental chairs and individual faculty member participate in the process. Institution's mission change might affect all three levels, individual, interpersonal and organisational scale (Goodman, 1982, as cited in Kezar, 2001).

Changes in structure can include the organisational chart, the reward system, or institutional policies and procedures. In terms of responsiveness, Kezar (2001) distinguishes adaptive from generative change, arguing that adaptive change is usually a one-time response to the external environment, cyclical, responding to new forecasts, and generative change is ongoing and is reflected within the learning organisational model. Concerning intentionality (planned or managed), change refers to modifications that are deliberately shaped by organisation members. Planned change is the conscious decision to change, marked by the intentionality and deliberateness of process, involvement of internal and external expertise, and strategy of collaboration. Unplanned change happens ad hoc and can increase adaptability (Kezar, 2001).

Change is proactive, when happening before a crisis and facilitated by a generative environment with ongoing learning; or reactive when happening after a crisis. Both proactive and reactive kinds of change can sometimes be active or static change according to the extent of change agents involved, that is, the number of participants implementing the change. Active change requires many of the organisational participants to be involved, while static change can be implemented by one or a few individuals. Considering the target, change can be a process, as referring to the way in which change happens, or an outcome which can be intended or unintended, including

a new structure, process, mission, rituals, and individual beliefs, culture, and benefits (Kezar, 2001).

Kezar's categorisation portrays different characterisations of the process of change that can be useful to describe the changing process of a higher education institution such as EMU and can be used to find out how the total set of interventions played a role in causing changes.

2.1.4. PADev Analytical Model

The PADev model shows the relationships between the concepts that were taken to sustain the analysis in addressing the research question and sub-questions. For better understanding of how beneficiaries are incorporated in the process of generating co-constructed knowledge about the social reality, some concepts from the social realism and institutional theory perspective were incorporated. Thus, the main concepts integrated in the model are the following: holistic, local context, participation, and development interventions. Other related concepts are connected (See figure 4).

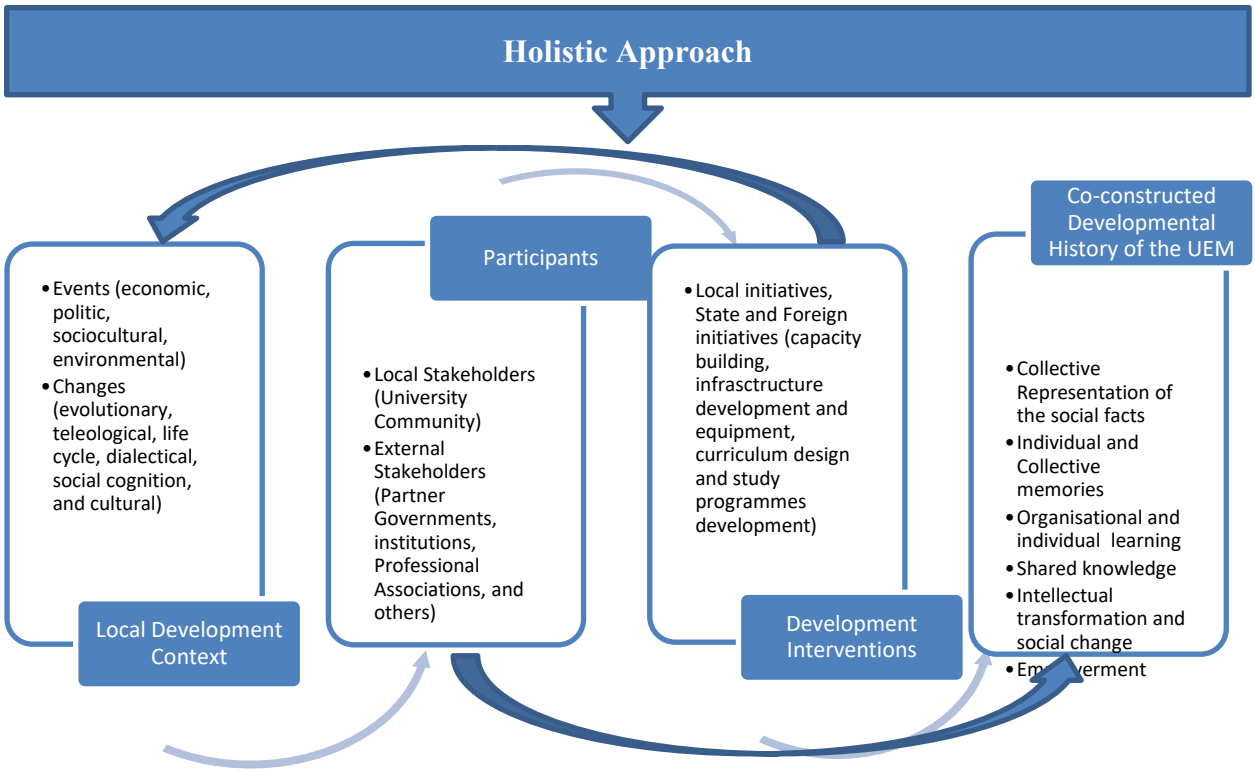

Figure 4: PADev Analytical Model

Holistic

The PADev methodology encompasses a holistic view towards development. 'Holistic' refers to an approach of thinking about development in its broader sense, providing a 'big picture' of development, allowing to see the contributions of different development initiatives in the context of wider societal change.

A holistic approach in PADev means that development interventions are assessed in relation to the changes that have occurred in the community and the structures and processes that drive development, taking into account the various domains of the functioning of the institution.

Local context

In PADev, the development context is established by collecting information from participants on the 'events' and 'changes' that have occurred in the local context, which can be a community, and, in the case of this study, an educational institution. Context is important because of the two-way relationship it has on stakeholders who are affected by events and changes in their institution on the one hand, and stakeholders may also act in ways that cause events or bring about changes, on the other hand.

Participants/Participation

Participants include a wide range of people from all relevant categories of the local population, chosen for a variety of purposes, and it includes university community members, local education authorities, donors, development and funding agencies, professional organisations and associations, and partner institutions. In practice, this means sampling participants in a way that does justice to the demographic, socio-cultural and socio-economic composition of the community and ensures diversity within the participating stakeholders. Diversity in experience and perspective on development is required in order to build a holistic understanding of change and development in a given setting and period.

In the centre of PADev's conceptual scheme, are the workshop participants (local stakeholders) who are sampled according to (i) gender, (ii) occupational category, (iii) function (lecturer, researcher, and CTA), and (iv) contractual regime (full-time and part-time) attributes. Other external stakeholders were sampled based on partnership criteria. This enabled the analysis of participants' responses, involvement and commitment in relation to these attributes.

The study units, which include academic, research and administrative units, were sampled using the following criteria: (i) period of existence, (ii) the relevance of their study field, and (iii) the volume of external support received.

Participation in PADev means equally active involvement by all participants at least in workshop sessions, therefore it uses so-called 'stick and stone' methods to enhance participation and avoid undermining the voice of some participants' against the views of dominant individuals. It is also used to generate in-depth discussions and promote engagement among participants.

Development interventions

Development interventions are the range of initiatives that benefited the community members in a given setting, which can also impact on the local context, therefore subjected to beneficiaries' assessment.

2.2. Participatory Evaluation Approaches

Participatory evaluation approaches can be distinguished by taking into account their goals and their forms or processes. A simple distinction is made by Chouinard (2013) by comparing technocratic approaches with participatory or collaborative approaches. According to the author, whereas participatory or collaborative approaches to evaluation are more sensitive and responsive to community needs, the accountability-driven technocratic approaches do not. The accountability-driven technocratic approaches to evaluation can be seen as a neutral instrument providing impartial, evidence-based, and objective information intended primarily to satisfy accountability requirements. Thus, this approach falls short of capturing the range of local views, contextualised meanings, and culturally relevant perspectives that participatory and collaborative approaches to evaluation are intended to capture. Playing an instrumental role, accountability-driven technocratic approaches serve as management tools designed for accountability and decision-making purposes. Participatory evaluation demands a new perspective towards evaluation where the interaction between the social actors results in knowledge construction. In terms of utility, participatory approaches to evaluation are designed to address diverse programmes and organisational needs across a broad range of local, programme, and cultural contexts, with various purposes that include local ownership, empowerment, use of findings, organisational and individual learning, and programme improvement (Cousins & Chouinard, 2012, as cited in Chouinard, 2013, p. 238).

Concerning stakeholder involvement, Fetterman and colleagues (2014) differentiate participatory evaluation between collaborative evaluation and empowerment evaluation by discussing the role of the evaluator. Collaborative evaluators are in control of the evaluation despite the involvement of the stakeholders that strengthens

the evaluation designs, enhances data collection and analysis, and results in better stakeholders understanding and usefulness of the results of their involvement. Collaborative evaluation not only enables an evaluator's consultation with the client but also a full-scale collaboration with specific stakeholders in all phases of the evaluation (Rodrígues-Campos & O'Sullivan, 2010, as cited in Fetterman et al., 2014, p. 145). A next step can be that participatory evaluators gradually share control of the evaluation with the programme staff members and programme participants by having them participate in the evaluator's agenda or involving them in the design and implementation of the evaluation – defining the evaluation, developing instruments, collecting and analysing data, reporting and disseminating results (Shulha, 2010, as cited in Fetterman et al., 2014, p.145). One step further, empowerment evaluators give control of the evaluation to programme staff members, programme participants, and community members, but they are criticising and/or coaching them to keep the evaluation process on track, rigorous, responsive, and relevant (Fetterman & Wandersman, 2010, as cited in Fetterman et al., 2014, p.145).

Chouinard (2013) suggests that participatory and collaborative approaches to evaluation are more inclusive and sensitive to local contexts than instrumental approaches. However, very often the stakeholder involvement approach is reduced to a stakeholder-based evaluation approach that gives the evaluator control of the evaluation, and often stakeholders' participation is limited (Bryk, 1983; and Mark & Shotland, 1985, as cited in Fetterman et al., 2014, p.146).

From the perspective of Garaway (1995), participatory evaluation finds itself differentiated from other approaches to evaluation more in their process than in their products. Intended as a tool of transformation, the potential of participatory evaluation stems from its democratic base: it requires a sharing of power and stimulates a strengthening of the analytical capabilities of all participating stakeholders. It encourages mutual understanding and appreciation of different perspectives that in turn can be the precursor for both intellectual transformation and social action (Mathie & Greene, 1997, p. 279).

Participatory evaluation becomes a team effort that includes the variety of strengths within the participants' pool. The evaluation performed by a team differs from traditional formats of action-research where the researcher maintains the control over the research process (Whyte, 1991, as cited in Garaway, 1995). The researcher acts like a moderator or facilitator in the research process and shares the control and involvement in all phases of the research. Moreover, it is expected that the facilitator will become a learner, arbitrator, and teacher, developing local skills and promoting an interactive learning environment. Furthermore, there is an understanding that the participatory evaluation approach enhances knowledge construction, and shared knowledge

improves its utilisation, empowers participants, and thus makes the evaluation process and development interventions more relevant for the community (Garaway, 1995).

Whyte (1991) places the earlier expression of participatory evaluation in participatory action research (PAR) and defines this approach as a form of applied research, where the researcher becomes a facilitator in helping those being studied to become actively engaged in the quest for information and ideas to guide future efforts (Whyte, 1991, as cited in Garaway, 1995, p.86). Quite often, this approach is used for the purposes of inclusion, social justice, and equality of participants in the research (Zuber-Skerritt, 2015).

In the large family of action research, there is also another approach: participatory action learning and action research (PALAR), conceived as a philosophy, a methodology, a theory of learning, and as a facilitation process for community engagement. It appears as a holistic, integrative concept that incorporates related concepts (action learning, action research, participatory action research, and lifelong learning) and values such elements as participation, collaboration, communication, community of practice, networking, and synergy. The epistemological assumption behind PALAR is that practitioners can also create knowledge on the basis of concrete experience by critically reflecting on this experience, formulating abstract generalisations from it, and testing these newly created concepts in new situations – thus gaining new concrete experience, and continuing the next cycle of experiential learning and knowledge creation (Zuber-Skerritt, 2015).

Despite its potential concerning the involvement of the stakeholders in the evaluation process, there is an understanding that participatory evaluation raises questions of credibility and bias addressed via the process of conceptual analysis and explication of world views, since it highlights the importance of all involved evaluators (all participants involved in the evaluation process) making their own personal world views, values, and beliefs explicit. Usually, evaluation is a process carried out by an external judge, an 'objective' observer/data gatherer, where objectivity is intended to guard against bias and to preserve the validity of the findings. Participants are potentially good judges because they alone experience the full impact of a programme. It is through the 'experiencing' that they have a knowing, a knowing that observation and testing cannot attain (Garaway, 1995).

Smits and Champagne (2008) provide a categorisation of participatory evaluation made by researchers, based on evaluation's ultimate goals, in an attempt to show its applicability. Once the main goal is to create social justice for minority groups divested of their rights, it is called *capacity evaluation* (Fetterman, Kaftarian, & Wandersman, 1996, in Smits & Champagne, 2008). When the participatory process aims to improve the use of the evaluation results through the involvement of the addressees, it is called

practical participatory assessment – PPA (Brisolara, 1998, and Cousins & Whitmore, 1998, in Smits & Champagne, 2008). When the objective is to construct the trajectory of development and change in a specific area over time it is designated *participatory assessment of development* – PADev (Dietz et al., p. 2011).

2.3. Placing PADev amongst the Existing Development Assessment Approaches

This section discusses the empirical foundations of the PADev approach to verify its effectiveness, pointing out its strengths and weaknesses. A comparative perspective was adopted in order to position PADev and other existing development assessment approaches.

Pouw and colleagues (2016, pp. 2-3) argue that, since the 1980s, participatory approaches to evaluate development have gained prominence and are being recognised for bringing in stakeholders' knowledge, cultural values, and experiences. In this context, the participatory assessment of development (PADev) approach is regarded as a participatory, bottom-up, and holistic approach to development impact assessment as it assigns critical value to local people's knowledge, experiences, and cultural-ethical values while expressing their assessment of development and change.

PADev is compared with other existing development impact evaluation approaches in terms of design, method, project/programme objectives, or process orientation (Pouw et al., 2016), whether it is a programme or project, or organisation specific. According to Dietz (2012), programme or project evaluations focus on the effectiveness of the intervention based on the interventions' outcomes or on the efficiency or sustainability of the intervention's implementation. The project evaluations mostly do not take into account the wider developments in the region. During many project evaluation processes, the relevance of the interventions to the target group's needs or development priorities are scarcely addressed, that is, the opinions of the supposed beneficiaries are largely neglected (Dietz, 2012; Dietz et al., 2013, p. 3).

Moreover, other methods of participatory evaluation, such as democratic evaluation, empowerment evaluation, or collaborative action research, often focus on a short period, are often donor or sponsor-driven, and are narrowly focused on input and output, and not enough on long-term impact (Dietz et al., 2013, p. 3).

Duflo and Banerjee (2011), for instance, argued that most evaluations are performed to trace the cost-effectiveness of development-project-specific intended impacts. Therefore, the evaluations reflect the perspective of the intervening agency, the donor or back donor, and follow the causal chain downward to find effects at beneficiary (or recipient) level (Duflo & Banerjee, 2011, as cited in Pouw et al., 2016).

PADev, instead, approaches the causal chain from the bottom-up, as it assigns different groups of stakeholders the task of identifying the projects and interventions they are able to recall or have knowledge about, and relies on multiple data sources. Doing so,

it creates more room for including social-cultural values, criteria, and a sense of shared ownership and responsibility (Dietz, 2012; Easton, 2012, as cited in Pouw et al., 2016).

PADev's main feature is the holistic and participatory perspective which is built into the methodology, concepts, and evaluation criteria (Dietz, 2012, as cited in Pouw et al., 2016). Pouw and colleague's (2016) description of PADev also places the approach within the synthesis design:

PADev fits closest to the participatory category as main design, but can be seen as a specific variant because it is holistic (multiple interventions are considered), historical (going back in time at least one generation), while blending in elements of a normative design (focus on effects on the poorest of the poor) and elements of agency design (collaborative action research). Validation takes place by the workshop participants if and how their actions and perceived or experienced effects, on themselves and others, are caused by the project or intervention under discussion. (…) PADev also contains elements of a synthesis design. On the basis of PADev modules on historical events and changes (…), meta and narrative analysis is conducted of the history of development initiatives in the community and an assessment of development agencies in the community (Pouw et al., 2016, p. 5).

According to the authors, the starting point of PADev is the stakeholders' living memory from which a collective history is built. The historical information on development is gathered in a systematic way and the discussions on why things happened lead to a comprehensive and collectively shared understanding of the current situation and of the roles played by the development interventions. Pouw and colleagues (2016) also argue that an intersubjective assessment of development reaffirms the human being as a social being who relates to others and its environment.

From the citation, it is suggested that PADev offers not just a better approach but that it also provides analytical and methodological categories that help address the shortcomings of other development impact evaluation approaches. PADev is described as a flexible approach that combines features of different design approaches which offer a holistic perspective on the development history of the region, community, or organisation.

Employed in education institutions, PADev can be an alternative to a short-term, expert-driven, donor-oriented approach to evaluation, and provide an inner perspective and better insight on development. It also provides a powerful perspective for the improvement of educational organisations by creating learning systems that reinforce organisational learning and, therefore, leading to better informed decisions (Cousins & Earl, 1995, p. 11).

2.4. Comparing PADev and Other Participatory Approaches to Assessment

This section compares the different methods, presenting in Table 1 below a description of participatory and collaborative evaluation approaches, and collaborative inquiry. The table shows commonalities and differences amongst the approaches in terms of use, objective, and control of the evaluation process. The approaches vary from research-controlled to practitioner-controlled, stakeholder selection ranging from primary users to all legitimate groups, and depth of participation that includes either mere consultation or deep participation.

Table 1: Comparing Participatory Assessment Approaches

Design approach	Specific variants	Utilisation	Objective	Control of the evaluation process	Stakeholder selection	Depth of participation
Participatory Evaluation	Practical Participatory Assessment (P-PA)	It supports organisational and programme decision-making and problem solving without commitment to effecting social change.	To empower participants and create data from the practitioners' perspectives.	Balanced: Both evaluators and participants are partners in the evaluation process.	Focus on primary users: programme sponsors, managers, developers, and implementers.	Extensive participation in all phases of the evaluation
	Transformative Participatory Evaluation (T-PA)	It is committed to democratising social change, to empower people through participation in the process of constructing and respecting their own knowledge.	To create data from the practitioners' perspectives. Aim to empower, emancipate and promote social justice.	Balanced: Partnership but participants control decision-making.	Focus on all legitimate groups, especially programme or project beneficiaries.	Extensive participation in all phases of the evaluation.
	Participatory Assessment of Development (PADev)	It is designed to get a bottom-up assessment of development and change in a particular area over a period of time based on the value system of the population with focus on the poorest of the poor.	To add both context and depth by building up a big picture of development and change in an area over time.	Balanced: Partnership but workshop facilitator controls decision-making.	All legitimate groups: The intended beneficiaries of multiple development interventions	Extensive participation of all relevant category of the local population in all phases of the evaluation.
Other Forms of Collaborative Evaluation	Collaborative Action Research	It engages local actors to reflect, investigate, take action, interpret and change with the technical support of researchers.	To promote personal, professional development and improved practice.	Balanced: Evaluator and collaboration members work in partnership.	Focus on primary users: Local and nearby stakeholders.	Extensive participation in all phases of the evaluation, particularly in identifying programme issues.
	Democratic Evaluation	It legitimates the use of evaluation in pluralistic society.	To stimulate programme improvement and evaluation utilisation.	Balanced: Evaluator and participants are partners in work and decisions.	Primary users: mostly programme developers and implementers.	Substantial participation. Ongoing involvement and participation.

	Stakeholder-based Evaluation	It advocates the involvement of a wide range of stakeholders in limited evaluation tasks such as assisting in scoping out the evaluation and in interpreting findings.	To emphasise the political aspects of evaluation (evaluation utilisation).	Evaluator: Evaluator coordinates activities and technical aspects of evaluation.	All legitimate groups: representation is key to offset all effects of programme politics.	Limited participation since stakeholders are consulted for planning and interpretation.
	School-based Evaluation	It enables staff training and support from external facilitator.	To support programme decision-making and problem-solving.	Balanced: Evaluator trains school-based personnel who do their own inquiry.	Primary users: School-based personnel, mostly programme implementers.	Extensive participation in all phases of the evaluation.
	Developmental Evaluation	It is designed for programme development and the process is the outcome, as the evaluator moves beyond evaluation responsibilities.	To improve programme, and evaluation and utilisation.	Balanced: Evaluator and participants work in partnership.	Primary users: Mostly programme developers and implementers.	Substantial participation. Ongoing involvement and participation.
	Empowerment Evaluation	It is designed to teach people to do their own evaluations and thus become more self-sufficient.	To facilitate empowerment, and illumination and self-determination. Through facilitation, training and advocacy, evaluators foster illumination and liberation of programme participants.	Participants have almost complete control, facilitated by evaluator.	Primary users: Usually key programme personnel, sometimes wider groups included.	Extensive participation in all phases of evaluation.
Other Forms of Collaborative Inquiry	Participatory Action Research (PAR)	It involves all relevant parties in actively examining together current action (which they experience as problematic) in order to change and improve it.	Inform and improve practice while advancing scientific knowledge.	Researchers and practitioner are co-participants in research.	Primary users: programme implementers, beneficiaries, and others.	Extensive participation in all aspects of research.
	Participatory Action Learning and Action	It is a conceptual integration of lifelong action learning and participatory action.	To facilitate process for community engagement aiming at positive social	Balanced: Researcher and practitioner are co-participants in research	Primary users: programme implementers, beneficiaries, and others.	Extensive participation in all aspects of the research.

	Research (PALAR)		change for a just and better world.			
	Emancipatory (Participatory) Action Research	It is designed to empower, emancipate, and ameliorate social conditions.	To advocate social change through enlightenment and action resulting from a process of deliberation and symmetrical communication.	Practitioner: researcher maintains exclusive control as resource person.	Unspecified: disenfranchised or marginalised stakeholders.	Extensive participation in all aspects of the research.
	Cooperative Inquiry	It is designed to root propositional research knowledge about people in their experimental and practical knowledge.	To engender social change.	Practitioner: Participants are both co-researchers and co-subjects with full reciprocity.	Unspecified: Most often participants are members of an inquiry group with all of the problems of inclusion, influence, and intimacy.	Extensive participation in all aspects of the research.

Source: Adapted from Butterfoss, Franscisco, & Capwell (2001), Dietz et al. (2013), Pouw et al. (2016), Zuber-Skerritt (2015), Cullen &Coryn, 2011.

The differences and commonalities between the participatory assessment approaches can be discussed, taking into account the control of the evaluation process amongst the evaluator and the participants; the selection of the stakeholders, whether all legitimate groups or primary user are included in the evaluation process; and the depth of participation of the study subjects.

Amongst the participatory evaluation approaches (Practical Participatory Assessment, Transformative Participatory Evaluation, and Participatory Assessment of Development), the control of the evaluation process is balanced between the researcher (that can be an evaluator or facilitator, depending on the objective of the approach) and the evaluation's participants. This balance is different when analysing particular forms of collaborative evaluation and inquiry, specifically, Stakeholder-based Evaluation, Empowerment Evaluation, Emancipatory (Participatory) Action Research, and Cooperative Inquiry.

In regard to the stakeholder selection, the dominant trend is the focus on the primary user, which includes programme personnel (specifically, sponsors, developers, managers, and implementers), and local and nearby stakeholders. Few approaches tend to include all legitimate groups, that is, all relevant categories of the local population (Dietz et al., 2013), thus ensuring full representation of the beneficiaries of the programmes and projects. That is the case of Transformative Participatory Evaluation, Participatory Assessment of Development, and Stakeholder-based Evaluation.

As for stakeholders' participation in the evaluation, nearly all the approaches presented in the table value extensive participation of the evaluated, in all phases of the evaluation process that may include planning, implementation, and interpretation. Substantial and limited participation characterises democratic evaluation and developmental evaluation on the one hand, and Stakeholder-based Evaluation, on the other hand, respectively.

2.5. Historical Development of Higher Education in Africa: A special focus on Mozambique

This subchapter discusses briefly the historical context in which higher education developed in Africa. The trends in Mozambican context were outlined in this section, placing Eduardo Mondlane University in perspective.

2.5.1. Higher Education in Africa

This section provides a historical institutional overview of the development of higher education in Africa.

The broad literature on higher education (Johnstone, 1998; Fehnel, 2003; Cloete, 2006; Kogan, Bauer, Bleiklie & Henkel, 2006; Assiè-Lumumba, 2006; Bloom, Canning, & Chan, 2006; Kyvik, 2009, Bitzer, 2009; Allen &Van der Velden, 2011; Massen, Moen & Stensaker, 2011; and Musselin & Teixeira, 2014) indicates that in the 1990s higher education was subjected to close attention and reflection. Its importance, functioning, benefits, and vital relationship with economic growth and social development was elucidated, particularly in developing countries. The key role to be played by higher education has been continuously emphasised by world organisations and institutions (UNESCO, 1998; The World Bank, 2000; The World Bank, 2006). In the late 20th Century, thinking on higher education revolved around the reform of the higher education system and institutions set by international agencies. As a result, institutional autonomy and change and transformation in higher education became topics that have dominated the debate ever since.

The idea of higher education as a key factor to enhance social and economic growth is consensual, despite the late recognition of its potentiality. Before the mid-1990s, educational developments in developing countries were mainly directed to primary and secondary education, aiming to expand its access (The World Bank, 2000). For several years, donor institutions neglected the role of tertiary education, particularly in sub-Saharan Africa, as the international community did not consider its benefit as improving economic growth and having a positive impact on poverty reduction. The World Bank, for example, reduced the worldwide education-sector spending on higher education from 17% (1985 to 1989) to 7% (1995 to 1999) (Bloom, Canning & Chan, 2006). That explains the relatively insignificant investment made in higher education until 2000. Nevertheless, empirical evidence has shown higher education's viability and ability to change and to induce change and progress in society over the centuries (UNESCO, 1998, p. 1).

Society has rapidly become knowledge-based in such a way that higher learning and research have become essential components of the cultural, socioeconomic, and environmentally sustainable development of individuals, communities, and nations (UNESCO, 1998, p. 1). A UNESCO statement praises the role of higher education and research in promoting intellectual work and expanding human knowledge, as well as in the transfer of technological innovation and extension activities that transform societies.

According to Teferra and Altbach (2004), around 2000, higher education starts to be seen as a key force for modernisation and development and an important driver of the 'knowledge era'. Thus, it was recognised that African development would henceforward be relying on a strong post-secondary sector, and academic institutions were recognised by national governments and international agencies as key sectors in society.

Consumers, governments, and students find it important to have a stronger higher education system and broader higher education institutions to meet the demand of the local population. African countries have indeed increased their higher education systems tremendously since 2000. Access to higher education was no longer mainly restricted to a country's elite (The World Bank, 2000).

Governments around the world were concerned with building a stronger higher education system and ensuring that higher education institutions offered high-quality education. By offering quality education, these institutions are more likely to produce a qualified, highly skilled, and well-prepared workforce to fulfil labour market needs and contribute to the socioeconomic growth of nations. In this regard, the expectation is that the higher education system should perform with efficacy and efficiency without losing autonomy, flexibility, and responsibility (United Nations University – UNU, 2009).

Concerning the relevance of universities in Africa, Aina (2010) stated that: *'Yet, the university in Africa and higher education in general remain, a significant part of the overall social, economic, and cultural constitution of societies and nations. Higher education contributes to the formation and deployment of human capital, the cultural and social construction of values and meaning, and the capacity for individual and collective emancipation from ignorance and domination. Higher education further contributes to how the energies and products of science, technology, and the improvement of material conditions are mobilised for the well-being of individuals and groups. It provides people with the tools and capacities for their collective and individual self-definition and empowerment, and for interpreting their relationships to themselves, to others, and to nature and their material and other environments. It provides the platform for the advanced study, dissemination, and utilisation of knowledge and its products for the benefit of society and its constituents'* (23).

Aina's quote describes clearly the meaning and impact of universities in the various domains of African societies and citizens, as it constitutes a factor for peoples' emancipation, autonomy, and empowerment, while providing and disseminating knowledge.

African governments' expectations are that higher education institutions (HEIs) will perform additional tasks beyond teaching tertiary-level students. The additional tasks include (i) ensuring equity of access, (ii) enhancing and promoting women's participation, (iii) advancing knowledge through scientific research, (iv) having a long-term orientation based on societal relevance, (v) strengthening cooperation with the labour market and analysing and anticipating societal needs, (vi) diversifying for enhanced equity of opportunity, (vii) embracing innovative educational approaches

such as critical thinking and creativity, and (viii) promoting staff development (UNESCO, 1998).

The expectations concerning higher education institutions not only affect their entire structure but also demand a clear vision of the society's future needs. Each of these aspects challenges HEIs to think strategically and change in many ways, which thus makes it relevant to discuss the development of African universities to see how they have evolved.

2.5.2. The Development of African Universities

This section provides a brief description of the early developments of universities in Africa. This development is described in terms of expansion, management and governance, and financing,

The analysis of the impact of the colonial past and the continuing impact of the former colonial powers on African universities becomes relevant to understanding some current features and issues challenging African universities. Thus, the awareness of the global issues around knowledge production, the universal character of knowledge and universities, and the need to internationalise local curricula compel African universities to acknowledge their colonial origins and simultaneously remain open to the world (Woldegiorgis & Doevenspeck, 2013, p.39).

It is argued that legacies from the pre-Independence period shaped the structure and substance of African universities in their initial phase of development (Saint, 1992). The overall characteristic of colonial legacy (mainly anglophone, francophone, and lusophone) in African universities include, amongst others: (i) separation and alienation from the rural majority, particularly in the anglophone countries, reflecting the ivory tower nature of the colonial institutions; (ii) an overemphasis on the arts and humanities, with little attention given to the sciences, technology, economics, and other professional subjects; (iii) research not related to the needs of the majority; and (iv) limited access to higher education, since the universities were geared towards serving the elite, although in francophone countries, for instance, university access was offered to all students who successfully completed the secondary school baccalaureate examination (Ajayi et al., 1996; Akin Aina, 1994; and Saint, 1992, as cited in Ng'ethe et al., 2003).

Overall, the characteristics pointed out above clearly denote the discriminatory and elitist nature of colonial education. Beverwijk (2005, p. 102), who stated that university access was very much based on social and economic capital, which most African families did not possess, highlighted this idea of limited access to HEIs.

Concerning university access, in lusophone countries, for instance (Angola, Cape Verde, Guinea-Bissau, Mozambique, and São Tomé and Principe), Langa (2013) pointed out the discrepancy between the colonial discourse towards the education of the locals and the actual implementation of this discourse. Furthermore, the foundations on which Portuguese education was built prevented most Africans from succeeding in reaching university level.

There is a common vision that contemporary African universities have maintained a continued dependence on the European higher education paradigm (Ng'ethe et al., 2003), which includes the adoption of the Western model of organisational and academic structure, course content, teaching and learning methodologies, and credit transfer systems (Amonoo-Neizer, 1998; Teferra & Altbach, 2004; and Woldegiorgis & Doevenspeck, 2013).

Once most sub-Saharan African countries became independent from the colonial powers, the existing local universities were urged to change. The countries' new political situation and development aspirations in the new post-Independence era justified the universities' new role and their need to change in order to address socioeconomic development needs. Amonoo-Neizer (1998, p. 301) pointed out that African universities experienced a process of adaptation that incorporated the social structure of the countries in which they were implanted, moving away from their European heritage.

In that regard, Ajayi and colleagues (1996, p. 95) stated that the 'newly established independent governments made their impact felt in asserting their sovereign rights to own and to control their universities' (Ajayi et al., 1996, p. 95, as cited in Ng'ethe et al., 2003, p. 10). Following the orientation towards nation-building and national development in the Independence era, and despite diverse and adverse situations, university reform assumed common features in different countries. Those features included: (i) curriculum innovations through the introduction of vocational and professional educational programmes, new study subjects, and introduction of 'African culture' and 'indigenous knowledge' in the study of humanities, medicine, technology, and architecture; (ii) wider access, which increased student enrolment; and (iii) the establishment of new universities, new national universities' campuses, and specialised universities (Ajayi et al., 1996, pp. 74, 95; and Akin Aina, 1994, pp. 10-11, as cited in Ng'ethe et al., 2003, p. 10). Accordingly, Ng'ethe and colleagues (2003) stated that the concept of the 'developmental university' emerged in African states.

2.5.2.1. Expansion

The changes in African education policies subsequent to the various countries' Independence, led to the nationalisation and expansion of local higher education

systems with the emergence of multiple national higher education institutions. The main feature of the emerging HEIs was that institutions were different in type, with diversified curricula that incorporated national content and interests (Woldegiorgis & Doevenspeck, 2013, p. 39).

According to Teferra and Altbach (2004, p. 22), by 2004, the African continent had more than 300 universities spread over 54 countries. In a short period, this number doubled, as in 2009 Africa had more than 250 public and 420 private higher education institutions (The World Bank, 2009, as cited in Woldegiorgis & Doevenspeck, 2013, p. 36). The figures on the evolution of the existing African universities shows a tremendous expansion of the African higher education system. This rapid growth was accompanied by the 'universalization' of secondary education and the perception of higher education as a viable and profitable 'commodity' (Achanga, 2012).

Notwithstanding this expansion and the effort to develop higher education in African countries, the issue of access assumed new contours, since the offer fell short of the increased demand posed by post-secondary graduates. It became even more problematic when students' enrolment rates exceeded the capacity of the structure of the institutions and went far beyond the available financial resources (Teferra & Altbach, 2004, pp. 25-26). The issue of university access also arises when, for instance, universities' graduation rates are low and the proportion of students entering in higher education institutions every year is very high.

Following the expansion trend, many African governments designed and implemented policies to increase diversity in higher education. Accordingly, different types of HEIs have emerged, always government-driven, prescriptive, and often defined by law. What distinguishes them all are the funding sources and mechanisms, legally defined permissions, and prohibitions. The institutions' classifications are based on the institutions' research and teaching objectives, levels and degrees offered, size, and comprehensiveness (Van Vught et al., 2010, pp.14-15).

Whereas the funding criteria classify HEIs as public and private, the research and teaching objectives and the levels of degrees offered categorize them as universities (conventional and specialised universities), polytechnic institutes, specialised colleges, higher institutes, higher schools, academies, etc. (Langa, 2013, Assiè-Lumumba, 2006). The categories of HEIs vary and are also linked to the existing categories in the francophone, lusophone, and anglophone systems.

While public higher education institutions are owned by the state, private higher education institutions are owned by individual or collective entities that include limited liability companies, foundations, or corporations, whose main sources of income are private. The profitability is also another funding-related criterion used to distinguish higher education institutions, and based on the fact that there are for-profit institutions

(business-like) and non-profit institutions (philanthropic associations/organisations) (Langa, 2013, p. 66).

2.5.2.2. Management and Governance

In African countries, the involvement of the government in university affairs constitutes the norm when the institution is public (Teferra & Altbach, 2004) and somehow determines the level of authority held by the university' management body and the way it is performed. In anglophone Africa, for instance, the head of state often holds the ultimate authority as the chancellor or president in appointing vice-chancellors and others in the line of command. The vice-chancellor has the executive power as assigned by the board of directors, which themselves are composed largely of government-appointed members and, in some countries, include students. The vice-chancellors might also be appointed by the country's minister of education with or without the approval of parliament or even the chancellor. The chain of power starts with the vice-chancellor, down to deans/directors, and lastly heads of departments. The nomination of the deans and directors in most cases is done by the vice-chancellor, directly by government officials, or by boards of directors or trustees. It is common that fellow members democratically elect the head of a department. A few countries submit a shortlist of candidates to the government to occupy the highest positions as a compromise between the university community and the government (Teferra & Altbach, 2004, pp. 29-30).

There are implications when the university governance depends on state authorities, or when a vice-chancellor is appointed either by the minister or the president. With such a centralised governance structure, matters such as academic freedom and autonomy, and the degrees of freedom in decision-making processes become questionable due to conflicting interests and expectations (politics versus academy) that characterise these administrative positions. The persistence of these governance structures influences the development pattern of higher education throughout the continent as well as the knowledge production system.

Overall, management systems in African universities were described by Teferra and Altbach (2004) as being poor, inefficient, and highly bureaucratic. According to the authors, management in African universities was a problem because institutions lacked well-trained and well-qualified personnel; efficient, effective, and modern management and administrative infrastructures; and well-remunerated staff. Another issue African universities have to address is the size of non-academic and administrative staff that often exceeds the size of teaching and research staff. There is an understanding that the existing governance models and leadership appointment procedures foster these problems.

2.5.2.3. Funding

HEIs, both public and private, mostly rely on financial resources to perform their mission. The literature discussing financing of higher education shows that institutions obtain their budget from the local government, external funding (donations from foreign governments and/or agencies and foreign universities), revenues, and other sources.

Altbach, Reisberg, and Rumble (2009) stated that African governments normally provide (public) higher education with 90% to 95% of their total operating budget. The remaining percentage comes from tuition fees, services, consultancy, renting facilities, and external funding sources. In many countries, the state budget covers stipends and living allowances for students, while donor funds often support research activities. The funding source influences the nature of the research being done and its impact on African higher education. Hence, a stronger market orientation and an entrepreneur perspective to expand the universities' financial resources became vital for HEIs to operate.

According to Wield (1995), the need for external support increased as the local availability of financial resources for the education sector gradually declined during the 1980s. This situation caused funding crises that affected installations, libraries and access to textbooks, and material conditions for students and staff.

In the earliest stage of their post-Independence development, African universities were confronted with financial setbacks that often placed them in a critical situation. Assiè-Lumumba (2006) stated that African universities have been at the centre of a higher education crisis due to this funding issue. The availability, scarcity, and absence of financial resources for higher education have influenced the capacity of institutions to function and fulfil their educational and societal missions. Accordingly, the quantity, nature, and sources of the financial resources not only affect the learning process and learning output, but also influence knowledge production through research and access to publications. The author also argued that the great limitations in resources affecting teaching, research, and learning conditions lower the level of staff and student motivation. This situation also produces a negative impact on curriculum development, governance of the university and university life, the principles and practice of academic freedom, and the capacity to hire, retain, and renew the teaching staff. Accordingly, the author stated that low-level task performance has become the norm in African universities, and thus innovative impulses are desirable (Assié-Lumumba, 2006).

Funding seems to play a major role in materialising any initiatives towards university development. The availability of financial resources keeps institutions functioning, ensures teaching and learning, and influences administrative practices, management procedures, staff, and infrastructure development.

2.5.3. Changing Context of Higher Education in Mozambique

After discussing the early developments of universities in Africa, the current section focuses on the genesis and trends in the Mozambican higher education system including its expansion, management and governance, and funding.

The higher education in Mozambique was established with the emergence in 1962 of the General University Studies of Mozambique (EGUM), which later in 1968 became Lourenço Marques University (ULM). Subsequent to Independence, in 1975, Lourenço Marques University was, in 1976, renamed after FRELIMO's first president, and became Universidade Eduardo Mondlane[10] (UEM).

In the pre-Independence era, the HE was managed by the colonial regime, and right after the Independence of the country, higher education was under the guardianship of the Ministry of Education and Culture (MEC), which provided the framework under which new institutions were created. Later, in 2000, with the establishment of the Ministry of Higher Education, Science, and Technology (MESCT), higher education was assigned to the newly created ministry. The MESCT was responsible for developing the overall frame for higher education in Mozambique, deciding on the relative roles of governmental and non-governmental institutions, and the most appropriate utilisation of public funding (Mario et al., 2003).

The new ministry developed a strategic plan for science and technology, reformulated the Law 1/93 on higher education, operationalised the Higher Education Strategic Plan (2000-2010), and developed a range of policies on distance education, credit accumulation and transfer system, and evaluation and quality assurance (Beverwijk, 2005, p. 121).

The new challenges facing the sector highlighted the role of science and technology for the development of the country. This new vision led to the elimination, in 2004, of the MESCT and the establishment of the Ministry of Science and Technology (MCT). Higher education was, in the new context, re-integrated into the Ministry of Education (MINED).

A set of complementary regulatory instruments for higher education was also developed, approved, and implemented in the period between 2000 and 2010. These included the following: (i) the National System for Evaluation, Accreditation, and Quality Assurance of Higher Education (Decree no. 63/2007 of 31 December); (ii) the

[10] Eduardo Mondlane University (EMU)

Regulations of the National Qualifications Framework for Higher Education (Decree no. 30/2010 of 13 August); (iii) the National Credit Accumulation and Transfer System (Decree no. 32/2010 of 30 August); (iv) the Regulations of the National Council for Higher Education (Decree no. 29/2010 of 13 August); (v) the Regulations for the Licensing and Operation of Higher Education Institutions (Decree no. 48/2010 of 11 September); and (vi) the Regulations of Inspection to Higher Education Institutions (Decree no. 27/2011 of 25 July) (Premugy, 2012).

In 2015, changes in the political scenario (presidential elections and legislative changes) led to changes in the education context, and a new Ministry of Science and Technology, Higher Education and Technical and Vocational Education (MCTESTP) was established by Presidential Decree 1/2015 (Presidency of the Republic, 2015). The assignments of the new ministry include determining, regulating, planning, coordinating, monitoring, and assessing the activities within the field of science and technology, higher education, and technical and vocational education. The new ministry's approach was the integration of science and technology with higher education. Since the productive sector was a priority, technical and vocational education was added in order to link HEIs with the productive sector (public and private), and to promote scientific and technological innovation in technical and vocational educational institutions (MCTESTP, 2015).

A specific body from the Ministry of Education coordinated and managed higher education, and monitored the implementation of these regulations, namely the Directorate for Coordination of Higher Education (DICES). Since 2015, DICES tasks were assigned to the National Directorate of Higher Education (DNES), a new unit under the MCTESTP.

2.5.3.1. Expansion

The approval of the first Higher Education Act, the Law 1/1993 of 24 June, contributed to the development of the Mozambican higher education system concerning the expansion and diversification of HEIs. The number of both public and private institutions providing higher education rose from 3 institutions in 1993 to more than 50 institutions of higher learning in 2019. These institutions were established not only in the capital city Maputo, but they are also operating all over the country (Langa, 2011) with a great impact on gross enrolment rates.

From 2003 onwards, higher education flourished in terms of the number of public HEIs undoubtedly because of the approval of the Law 5/2003 of 21 January. This growth was exponential, taking into account the increasing demand for higher education, particularly from secondary school graduates. Moreover, private initiatives also affected the expansion and diversification of the system. As Beverwijk (2005) stated, the rapid growth of the sector originated as a result of a growing demand for equitable

access to higher education as well as a growing need for highly qualified professionals for the labour market. From 1995 to 1999, the country experienced a proliferation of private HEIs in a period where no other public institution emerged.

Historically, in terms of infrastructure and services, the southern provinces of Mozambique, particularly Maputo Province are more developed than other provincial capitals in the central and northern regions. This might be explained by the fact that the central government has its headquarters in the capital city of Maputo, and investments in physical infrastructure and provision of services is highly concentrated in Maputo. This fact is also associated with a model of urbanisation inherited from colonisation, and in contrast to the pre-colonial situation, when the most powerful area was the North of the country, which had historically been under Arab influence. This uneven development of infrastructure and services also reflects the reality in terms of the settlement of higher education institutions, both public a private (Appendix 1).

Currently, the Mozambican higher education scenario is composed of twenty-two public HEIs, among them nine universities, eight institutes including polytechnic institutes, three academies, and two higher schools. First established in 1962, Eduardo Mondlane University monopolised the provision of higher education during the first two decades after Independence. More than twenty years later, two other public institutions emerged in the Mozambican HE scenario, namely the *Universidade Pedagógica*[11] (UP) in 1985, and the *Instituto Superior de Relações Internacionais* Higher Institute of International Relations[12] (ISRI) in 1986.

The UP was established by Decree 73/85 of 4 December as the *Instituto Superior Pedagógico*[13] (ISP), under the supervision of the Ministry of Education. ISP emerged as a public HEI devoted to training teachers for all levels of the National Education System (SNE) as well as educational practitioners. The institute became the Pedagogic University by Decree 13/95 of 25 April 1995, with the approval of its statute (*Universidade Pedagógica*, 2014). This was the first institution based in Maputo that expanded its services across provinces and opened its first branches outside the capital city, Maputo (Taimo, 2010).

Between 2011 and 2017, no other public universities emerged, but in 2018 and 2019 big changes occurred, and new institutions were established. New developments accounted for the extinction of the UP (Decree no. 2/2019 of 13 February) given the need for restructuring HE in order to provide public universities with more efficient administrative and management mechanisms so as to be capable of responding to the

[11] Pedagogic University

[12] Pedagogic University

[13] Higher Pedagogic Institute

current demands of the country. Five new autonomous universities resulted from the restructuring of the UP with representation in the three major regions of Mozambique (two in the South, two in the Centre, and one in the North). These institutions include the *Universidade Pedagógica de Maputo*[14] (UP Maputo), the *Universidade Save*[15] (UniSave), the *Universidade Púnguè*[16] (UniPúnguè), the *Universidade Licungo*[17] (UniLicungo), and the *Universidad Rovuma*[18] (UniRovuma) (*Conselho de Ministros*, 2019a, b, c, d, e)[19]. The UP Maputo is the current headquarters of the UP's eliminated branches. The merger of the Massinga and Gaza locations resulted in the UniSave. UniLicungo and UniPúnguè resulted from the merger of the former UP`s branches across the country, specifically UP Beira, UP Quelimane, UP Manica, and UP Tete. The merger of the UP Niassa, UP Nampula, and UP Montepuez resulted in the establishment of UniRovuma.

The *Instituto Superior de Relações Internacionais*[20] (ISRI) was established by Decree no. 1/86 of 5 February 1986, and was eliminated under the Decree 85/2018 of 26 December. The same decree also eliminated the *Instituto Superior de Administração Pública*[21] (ISAP) created by Decree no. 61/2004 of 29 December. The extinction of these two HEIs was allegedly to streamline costs and make public education management more efficient. A new institution emerged from the fusion of ISRI and ISAP, namely the *Universidade Joaquim Chissano*[22] (UJC), which was also established by Decree no. 85/2018 (*Conselho de Ministros*, 2018). Thus, the number of public HEIs in 2019 reached 22. The number of public universities rose from four in 2013 to 9 in 2019. As for academies, apart from the two established in 1999 and 2003, specifically *Academia de Ciências Policiais*[23] (ACIPOL) and *Academia Militar*[24] (AM), respectively, one new academy was established in 2017, namely the *Academia de Altos*

[14] Maputo Pedagogic University

[15] Save University

[16] Púnguè University

[17] Licungo University

[18] Rovuma University

[19]Maputo University (UP Maputo) established by Decree no. 5/2019 of 15 February, the Save University (UniSave) established by Decree no. 6/2019 of 13 February, Púnguè University (UniPúnguè) established by Decree no. 4/2019 of 4 March, Licungo University (Uni Licungo) established by Decree no. 3/2019 of 14 February, and Rovuma University (UniRovuma) established by Decree no. 7/2019 of 18 February (Conselho de Ministros, 2019).

[20] Higher Institute of International Relations

[21] Higher Institute of Public Administration

[22] Joaquim Chissano University

[23] Academy of Police Sciences

[24] Militry Academy

Estudos Estratégicos[25] (AAEE). There was no variation in the number of institutes (8) and schools (2) (MCTESTP, 2019).

The emergence of private HEIs within the higher education scenario goes back to 1995. Amongst the private HEIs, the predominance of highly specialised institutes surpassed the number of universities and schools. Numerically speaking, from 1995 to 2022, the private higher education institutions (HEIs) reached 35, amongst them 11 universities, 22 institutes, and 2 schools. From 2014 up to 2019, only one new institution, THE *Instituto Superior de Negócios e Ciências Tecnológicas*[26] (ISCET) entered the private HEIs' group.

Changes were introduced into the system, and the *Instituto Superior de Tecnologia e Gestão*[27] (ISTEG) established by Decree 26/2008 of 1 July of the Council of Ministers, became *Universidade Wutivi*[28] (UniTiva) in 2014. The university arises following the growth of the Higher Institute of Technologies and Management, and currently comprises four faculties (Engineering, Architecture and Physical Planning; Law; Social and Human Sciences; and Economics and Business Sciences; a Secondary School; a medical centre, and halls of residence.

New developments inserted a new private Higher Education Institution in the Higher Education System (HES) with the emergence of the ISCET, established by Decree No. 43/2016 of 10 October of the Council of Ministers.

Overall, the HES in Mozambique in 2019 is comprised of 53 HEIs operating, amongst them, 19 universities, 27 institutes, 4 schools, and 3 academies (MCTESTP, 2019). However, the development of the Mozambican HES is not only visible in terms of the establishment of operating HEIs, but the system also integrates HEIs that were established, but are not yet operating (Appendix 1).

Both public and private HEIs were established with a similar purpose, the provision of higher education. Nonetheless, these institutions differ in nature, mission, and vocation. According to Langa (2013, p. 66) the differences between public and private higher education institutions are basically the type of property and the mechanisms of funding. Whereas public HEIs are owned by the state and rely on public funding, private institutions are entities whose income is private. By law, the private collective entities include limited liability companies, foundations, and corporations.

[25] Academy of High Strategic Studies

[26] Higher Institute of Business and Technological Sciences

[27] Higher Institute of Technology and Management

[28] *Wutivi* University

Another criterion of differentiation is the focus and importance the HEIs give to technical and professional training, scientific research and extension, including the kind of certification (certificates, diplomas, and honorary degrees) and/or academic degree (degree[29], master's, and PhD) they grant. Among the HEIs, universities, higher institutes, and higher schools offer technical training and scientific research, while higher schools and polytechnic higher institutes focus on technical and professional training. Polytechnic higher institutes are not permitted by law to award PhD degrees (*Assembleia da República*, 2003).

Profitability also constitutes a criterion applied to categorise HEIs, especially private HEIs. In theory, some private HEIs are for-profit institutions and others are non-profit institutions. The profitability is linked to the nature of the funding entity, whether it is a philanthropic association or organisation often with a religious background, or a business corporation. Somehow, student fees ensure the sustainability of the majority of these institutions, which turns them into for-profit institutions, regardless of their religious or corporate nature (Langa, 2013, pp. 67-68).

The profitability criteria are also stressed by Beverwijk (2005), who argues that the reputation of private institutions varies from profit seekers that neglect quality, to institutions that have better equipment and highly dedicated teachers that enhance quality. Concerning private HEIs, the dominant characteristic is the common perception on what motivates their emergence. In this sense, private institutions are more likely to be seen as profit-driven and money-oriented institutions.

The proliferation of public and private universities also reveals a differentiation of programmes and courses, and specialisation of institutions (Langa, 2006). The offer of different programmes and courses was intended to respond to the country's economic and social environment as well as to expand the income generation through student's fees. The growing expansion and diversification of the higher education institutions in terms of organisation, procedures, curricula, and qualification of the staff may lead to the intensification of the competitiveness among them for financial resources, as well as for legitimacy and prestige (Wangenge-Ouma & Langa, 2010, as cited in Langa, 2011).

The academic programmes offered by both public and private higher education institutions are intended to be relevant and aligned with the country's priority areas of development. The conception of the academic programmes not only depends on the mission and/or vocation of each HEI, but also depends on the availability of material, financial and human resources. This conditioning led institutions to focus on one or more study fields, namely Arts, Social Sciences and Humanities; Engineering, Natural and Health Sciences; and Services and Business Sciences (Appendix 2). The market

[29] *Licenciatura*

competition somehow allows the convergence of academic programmes offered by public and private HEIs, but it also responds to local demand in terms of course offer and in terms of target groups.

The Second General Meeting Report (UEM, 1982) poses EMU as an institution that should be taken as a source of inspiration for the expansion of higher education in Mozambique. Perhaps because of that statement, Eduardo Mondlane University is one of the institutions that provides a more comprehensive study programme. For more than 23 years, EMU was the only higher education institution in the country and accordingly it was able to provide highly qualified training for scientists and technicians. These professionals were expected to contribute with their knowledge and expertise to the country's socioeconomic development, as well as to ensure scientific and technological development.

A different scenario occurs with the public institutions that were specifically created to address particular areas of expertise. That is the case of the *Instituto Superior de Estudos da Defesa*[30] (ISEDEF), the *Escola Superior de Jornalismo*[31] (ESJ), the *Instituto Superior de Administração Pública*[32] (ISAP), the *Instituto Superior de Contabilidade e Auditoria*[33] (ISCAM), and the *Academia de Ciências Policiais*[34] (ACIPOL).

Among the private institutions, the *Instituto Superior Politécnico*[35] (ISPU/*A-Politécnica*) and the *Universidade Católica de Moçambique*[36] (UCM) are leading in the offer of academic programmes in terms of number of programmes (Appendix 2).

The situation that characterises public HEIs also occurs among private institutions where the differentiation in the nature and mission/vocation of the institutions has implications for the offer of either fewer or more courses.

Usually, private institutions offer low budget programmes such as economics, management, and accounting. However, there are private HEIs, namely UCM and ISCTEM, which offer expensive courses such as medicine and dentistry. The uniqueness of some institutions is related to the fact that they offer exclusive courses.

[30] Higher Institute of Defence Studies

[31] Higher School of Journalism

[32] Higher Institute of Public Administration

[33] Higher Institute of Accounting and Auditing

[34] Academy of Police Sciences

[35] Higher Polytechnic Institute

[36] Mozambique Catholic University

That is the case of ISUTC that offers courses such as civil and transport engineering, and communication engineering, which are unique in Mozambique (Beverwijk, 2005).

2.5.3.2. Management and Governance

The higher education sector in Mozambique was, according to Beverwijk (2005), mostly directed by authoritarian regimes in the first three decades (1960s-1980s), and the central government determined and enforced the education policies. In the 1960s, the HEIs' sector was ruled following a colonial ideology. In the 1970s, the Marxist-Leninist ideology characterised higher education, which implied central planning at the national level. At the end of the 1980s, a Western orientation influenced the sector, which led to the approval of the Law 1/1993, of 24 June.

The Law changed the model of governance of the higher education system in the sense that, before its approval, the Ministry of Education of Mozambique centrally controlled the whole system. The principles of autonomy and academic freedom, stated in the Law 1/93, drastically reduced the ministry's interference in the sector (Langa, 2013). The Law 1/1993 conferred autonomy to higher education institutions and a prominent role to the rectors as advisors to the Council of Ministers on higher education matters. Moreover, the rectors' role concerning the design and implementation of higher education policy increased due to their active participation in the National Council for Higher Education (CNES). In practical terms, the CNES became responsible for evaluating the applications for the establishment of higher education institutions and became the advisor to the Council of Ministers on higher education policy. The Council of Ministers, as the central authority, approves the establishment of new institutions, the funding of public institutions, and takes decisions about policy (*Assembleia da República, 1993*).

The autonomy that higher education institutions gained was crucial for asserting and positioning themselves in the higher education scenario. Universities now had full academic autonomy, which allowed them to decide what courses they offer, to define their own criteria for quality, to establish entry requirements, and to define their institutional governance structure (*Assembleia da República*, 1993).

However, according to Langa (2013), in the mid-1990s, the rapid expansion, diversification, and differentiation of higher education raised issues related to coordination, quality assurance, and supervision, along with regional and social equity. Accordingly, the government is back in action, again playing a crucial role in the sector. In 2000, a governmental board was created to coordinate the sector at the national level, namely the Ministry of Higher Education, Science and Technology (MESCT). MESCT's mission included among other things guiding and supporting the expansion and diversification of higher education. Ten years later, in 2010 the coordination of the

sector was handed over to three institutions; the Ministry of Education, the National Council for Higher Education, and the National Council for the Assessment of the Quality of Higher Education (CNAQ).

2.5.3.3. Funding

Different funding mechanisms benefit both public and private HEIs. The main sources of financing for public HEIs are the state and cooperation partners (external sources). However, in spite of being relatively insignificant in terms of amount of money, public HEIs still have their own revenues, mainly from the payment of tuition fees and income generation. Higher education is financed through various types of interventions, including the following: (i) direct funding to public HEIs through the General State Budget (OGE), which translates into direct budget allocations to institutions through the submission of specific proposals to the Ministry of Finance within the annual state budget proposals; (ii) direct financing to public HEIs through other mechanisms that include donations from international cooperation institutions, external bank credit, credit from national commercial banking, and student contributions (tuition fees); (iii) financing of private HEIs through various sources, such as student contributions (tuition fees), national bank credit, and foreign direct investment; and (iv) indirect financing to public and private HEIs through a scholarship programme through the Scholarship Institute and other scholarship sources (Alberto et al., 2012).

The HEI financing system was incremental, fiduciary, and based on budgetary negotiations between the Ministry of Finance and the HEIs (MINED, 2013). Whereas public higher education institutions have the possibility of negotiating their funding directly with the Ministry of Planning and Finance (MPF) based on institutions' needs, private higher education institutions are not financially dependent on government support. The government of Mozambique has, however, indirectly supported private institutions through the payment of scholarships for students to cover tuition fees and textbook costs, and exempting them from taxes when buying equipment (Beverwijk, 2005).

Nevertheless, government support for both public and private higher education institutions is heavily dependent on donor funding and expertise. Each donor organisation seeks its own niche, field of interest, and expertise (Lind & Igboemeka, 2002, as cited in Beverwijk, 2005). Donor funding and support have assumed different forms, including scholarships and training opportunities, technical assistance, research support to various faculties, and institutional capacity building. In other cases, financial resources have been provided to central institutional management that coordinates and distributes the money further (Beverwijk, 2005).

A new approach – the Strategy for the Funding of Higher Education (EFES) – was approved in 2013 in the expectation of introducing interinstitutional competitiveness based on performance indicators. The EFES is a financing system based on the real cost of providing education, taking into account the specific cost of the programmes, as well as the performance of higher education institutions (MINED, 2013).

The EFES proposes a new financing model composed of three mechanisms: (i) basic financing (divided into two categories: fixed costs and performance-based financing) – direct financing that aims to ensure the current functioning of the HEIs; (ii) institutional financing – direct financing based on competitive projects research and other projects related to this; and (iii) student funding – indirect funding through scholarships and student fees. Through the first mechanism, the government will ensure at least 30% of the total fund for basic financing, up to 60%, depending on the nature and mission of the targeted public HEIs. For the second mechanism, the institutional financing constitutes 10% of the total fund and aims to encourage the demand for innovation and infrastructure improvement by the beneficiary institutions, as well as to encourage a greater institutional response to government policies, improving the management and governance of the higher education as a whole. For the third mechanism, the student funding has to be administered by the Institute of Scholarships (IBE) and constitutes up to 60% of the total funding in institutions with several programmes and a considerable number of students. However, the nature and mission of public HEIs may increase or decrease this proportion (MINED, 2013).

The EFES would, according to Chilundo (2010), make the funding of higher education more sustainable, equitable, accountable, and efficient, since the previous funding system puts serious limitations in terms of the state's capacity to guarantee equitable access and acceptable levels of quality (Chilundo, 2010, as cited in Langa, 2013). The rationale behind the institutions' new approach is that the pressure to reach high standards of quality and academic excellence, as well as the context of scarce resources, demands the introduction of performance indicators. Seven years after EFES's approval, the instrument has yet to be implemented, since the funding regulations is being improved by a technical team from the MCTESTP, including the development of a formula for calculating the financing value, based on various criteria.

2.5.4. Eduardo Mondlane University

The previous section discussed the changing context of the Mozambican HES as a whole. This section presents the profile of Eduardo Mondlane University with a focus on its establishment as an elitist colonial higher education institution and transition to a national university. In doing so, a brief description of the rationale for the establishment of the university and its evolution will be provided. In addition, a

summary of the contribution of EMU's leadership will allow to portray their achievements in the different periods of the university`s existence. The organisational and academic structure, and study programmes were also presented in this section.

As stated before, the *Universidade Eduardo Mondlane*[37] (UEM)[38] is the oldest public higher education institution established in Mozambique. The Decree-Law 44/530 of 21 August 1962 established the institution under the name of *Estudos Gerais Universitários de Moçambique*[39] (EGUM)[40]. Six years later, in 1968, by the Law 48790, the General University Studies of Mozambique became *Universidade de Lourenço Marques*[41] (ULM),[42] due to its considerable development in terms of establishment of infrastructure, equipment, and human resources. On 1 May 1976, Samora Moisés Machel,[43] the President of the People's Republic of Mozambique, baptised the institution as *Universidade Eduardo Mondlane*, honouring the popular and revolutionary character of the Doctor Eduardo Chivambo Mondlane, the first president of the Mozambique Liberation Front, FRELIMO and organizer of the outbreak of the armed struggle for national liberation (ULM, 1971; UEM, 1991; and Mário, Fry, & Chilundo, 2003). Eduardo Mondlane is a name that, in the words of Samora Machel, symbolised the determination of all the Mozambican people, in the historic journey begun under his leadership, towards a new horizon of freedom, justice and progress. By naming the university after Eduardo Mondlane, a new phase in the life of the institution would be decisively and consciously marked (*Departamento do Trabalho Ideológico da FRELIMO*, 1977)[44].

The General University Studies of Mozambique, although implemented by the Portuguese colonial regime in a context of its growing isolation by the international community that was in the process of decolonisation, given the violent and aggressive nature of Portuguese colonialism, it is pointed out in Machel's speech as having been a direct result of the liberation struggle of the peoples of the Portuguese colonies (UEM, 1976: 17). It taught the general part of some courses. The priority of the courses taught corresponded to the areas of activity where there was a greater shortage of qualified personnel with higher education degrees (pedagogic sciences, clinic-surgery, civil engineering, mining engineering, mechanical engineering, electrical engineering, chemical-industrial engineering, agronomy, forestry and veterinary medicine, pure

[37] Portuguese.

[38] Portuguese Acronym.

[39] General University Studies of Mozambique.

[40] Portuguese Acronym.

[41] University of Lourenço Marques.

[42] Portuguese Acronym.

[43] First President of the People's Republic of Mozambique.

[44] FRELIMO's Department of Ideological Action.

mathematics, applied mathematics, chemistry and biology). With its development, and having ensured the full functioning of the same courses with the gradual introduction of the third, fourth, fifth and sixth years of the courses that corresponded to the bachelor's degree, it came to be called the "Universidade de Lourenço Marques" (University of Lourenço Marques).

The University of Lourenço Marques was a centre for higher studies whose mission was to promote cultural development and higher education, as well as to promote research (ULM: 1969). Created in close association with existing universities and integrated into the Portuguese University, it was a modern university, technically well-equipped, with renowned professors and social services. New courses were established, the bachelor's degrees in Romance Philology, History and Geography. The Centre for Humanistic Studies created in 1963 at the ULM promoted the dissemination of the Portuguese language and culture in Mozambique (ULM, 1969, UEM, 1977).

Thus, despite the existence of a culture with moral aspects and educational methods through which children could absorb the culture and become members of the society into which they were born (Mondlane, 1975), the colonists despised, fought against and ignored traditional Mozambican culture and education. Consequently, they instituted a version of their own education system, completely out of context, which would uproot the Mozambican African from his past and force him to adapt to colonial society.

It is in this context that EMU inherited the curricular legacy of colonialism where Portuguese remained the means of instruction, since the government of Mozambique maintained Portuguese as the country's official language because it was considered the language of national unity in a context of the existence of a diversity of local languages, and thus became the language of instruction. Regarding the linguistic situation in Mozambique, it is important to note that, as stated by Chimbutane (2022) as this is a multilingual and multicultural country, in addition to Portuguese, the official language, more than twenty Mozambican languages of Bantu origin are spoken. Geertz (1973) and Fishman, (1972b) argued that the choice between native languages and an ex-colonial language portrays the dilemma towards language issues in post-colonial African countries such as Mozambique. On the one hand, the establishment of a communications framework that could be up to the task of modernity, and on the other hand, the desire to preserve local traditions. Thus, the adoption of the ex-colonial language is justified on the basis that it is vital for the functioning of the social, economic and political institutions in the new state. Another justification is that the ex-colonial language favours the integration of different groups into the national system, in which a native language would supposedly have a disruptive effect. Furthermore, it was believed that the ex-colonial language would facilitate the integration of the post-colonial country into the international economic system (Geertz, 1973 and Fishman, 1972b, as cited in Firmino, 2002), and that was the case also in Mozambique. However,

Firmino (2002) stated that ex-colonial languages did not remain as static products, but rather acquired new symbolic meanings and structural aspects, rising to the status of linguistic variants with their own value and not exclusively as mere folkloric distortions of European languages.

As as a national university emerged in a context in which Mozambique sought to break with the colonial legacy that characterised the entire education system and which was reflected in its elitist nature, content and method, structure, and lack of planning, EMU strived to follow the revolutionary line that advocated the setting of an educational system at the service of the broad masses, and a system that would free man from the negative vestiges of tradition and colonial values (*Departamento do Trabalho Ideológico da FRELIMO*, 1977:13). Therefore, the vision that was the same as the university's was that the university should serve the people not as an external entity, but to deeply and definitively take root in the people (UEM, 1976). A university that seeks to descend to the people, the revolutionary reality in which it found itself. The new university that should radically break with the bourgeois conceptions of the old university.

Thus, the university is given the task of immersing its roots in the national reality, carrying out systematic and organised research and collection of Mozambican historical, cultural, artistic, scientific and technical heritage, based on the assumption that only by deeply knowing the country in which it was rooted would it be possible to restructure courses, organize school work and guide local research. To this end, the university should not be disconnected from the productive sector and social life. Therefore, the expectation of the university was that it would become a driving force in national reconstruction (UEM, 1976)

Focused on the relationship between work and knowledge, and knowledge based on Mozambican reality, on the contingencies of social life, EMU adopted a transformative agenda, and evidences of the rupture between the colonial university and the national university can be seen through the initiatives undertaken by the university, that affected both its early organisational structure and the range of study programmes it offers.

EMU initiatives can be placed in line with what Du Preez (2018:21) describes as *"decolonisation"*, "*a strategic response of higher education institutions to redress past inequalities and injustices, challenge the dominance of Western Knowledge, pedagogy and research, and question the colonial roots of university curricula*". It is the process through which "*colonial ways of knowing and doing are deconstructed and then reconstructed to include the history, culture, language, and identity of colonised peoples*".

In response to the desire to break with the colonial university, EMU established the African Studies Centre (CEA), the Faculty of Education (FACED), and the Faculty for Veterans and Vanguard Workers (FACOTRAB), introduced preparatory courses in the areas of science, and introduced Bantu language teaching courses.

The African Studies Centre was established in January 1976, with the mandate to perform scientific research in the field of social and human sciences. The centre had a multidimensional research programme that included teaching, debate of ideas (seminars) and dissemination of results. Its multidimensional research programme was guided by a paradigm informed by the ideals of equality, justice, responsibility, and social and contextual relevance of the themes and study objects. As part of its mission, the African Studies Centre helps to ensure the excellence and the quality of the university in terms of education, science, culture and technology, through the implementation of a multidimensional agenda for academic research and extension, contributing to the strengthening of bonds between the academia and the wider society (CEA, 2014) .

The history of the Faculty of Education can be divided into three different periods. The old Faculty of Education was created in 1980 to train teachers for the secondary education subsystem since the country was in crisis due to teaching staff shortage, and closed in 1986. The closure of the old FACED, occurred in parallel with the establishment of the Higher Pedagogic Institute, currently the Pedagogic University (UP), a public higher education institution devoted to the training of teachers and educational personnel for all levels of the National Education System (SNE). Accordingly, in1986, part of the functions of the faculty were transferred to the Higher Pedagogic Institute (ISP). FACED ceased to exist as such and assumed a new role as the unit that coordinated the implementation of two programmes, specifically the Basic University Sciences Course Experimental Project (BUSCEP) and the Staff Development Programme (STADEP). Therefore, the Faculty assignment shifted drastically from secondary teacher training to provide students' academic support and foster university teachers' career development. The unit started to offer academic support for secondary graduates willing to pursue further education at the university, and provide didactic and pedagogic training for newly admitted university teachers (Mário, Cassy, Kouwenhoven, Mandlate, Pereira, Tchernych, and Usta 1999). In 2001, the Faculty of Education was reopened offering postgraduate training in the field of education sciences. The faculty assignment was to train educational professionals, including graduates from the Pedagogic University, and perform scientific research and extension activities in the field of education.

The Faculty for Veterans and Vanguard Workers (FACOTRAB) (1983-1992) was created as an initiative to strengthen ties between the university and the freedom fighters of Mozambique. It was an innovative pedagogic experience rooted in the national

reality, which aimed to respond to the social and political contexts that Mozambique was experiencing. Through the teaching and learning process, the university established a relationship with the wider society, in the search for solutions to some of the country's problems (Jenseen, Lourenco, Cruz e Silva and Casimiro, 2022: 96, as cited in Quilambo, 2022).

The propaedeutic courses such as agronomy, veterinary, and medicine were implemented at EMU aiming to raise the level of preparedness of the secondary school finalists entering the university. The preparatory courses, which included a zero semester, were a useful mechanism to bring on board students whose profile in terms of knowledge did not meet the requirements of university education. It was a mechanism to ensure mass entry into the university, particularly for children of the poor, activists, workers, peasants, and freedom fighters, thus transforming the social face of the university, which democratised its teaching (Machel, 1976).

The injustices of colonialism regarding education included, according to Enslin and Hedge (2024), misrecognition, maldistribution and misrepresentation. Due to the dismissiveness towards of the indigenous, colonial education failed, amongst others, to recognize the worth of the bodies of knowledge and languages of the colonised (Enslin and Hedge, 2024). The introduction of Bantu language teaching courses at the extinct Faculty of Arts, now Faculty of Arts and Social Sciences (FLCS), represented an attempt to introduce local languages into the teaching process, as it they were part of the colonial education system. The purpose of introducing Bantu language courses was to enable graduates, future teachers, to be proficient in Bantu languages. In the bilingual teaching model, these languages would be used as a medium of instruction in the primary education subsystem for children who speak local languages as a first language, thus facilitating their learning in the initial classes. Moreover, the introduction of Mozambican languages into education had great significance, as it was a symbol of the ethnic and cultural identity of the Mozambican people.

Regardless of the fact that this study did not primarily intent to discuss the decolonisation of higher education, particularly higher education institutions, one can state that the initiatives taken by the university stands out as its early attempts in addressing its colonial past and its enduring effects, the curricular legacy of colonialism. Nevertheless, Enslin and Hedge (2024) argued that decolonising higher education and its institutions must also address new forms of empire which have colonised the university, since the influence of the late capitalism in the form of neoliberalism on the contemporary university is so strong. According to the authors, its modes of practice are likely to foster superficial strategies to decolonise the curriculum.

The authors further argued that capitalist structures and practices sustain current form of coloniality. In the post-colonial era, following formal decolonisation in the later

decades of Twentieth Century, conditions of coloniality, which varies according to context, have continued to prevail in most countries, including past colonies. Concerning universities, they claim that since the 1970s, most universities, including in former colonies were materially and culturally influenced by the global neoliberalism concerning knowledge, curriculum and pedagogy, learning and assessment, and systems and organisation (Enslin and Hedge, 2024).

While there are vast inequalities in expenditure on education, maldistribution of resources, persisting material injustice, universities under global neoliberal influences are complicit in the continuation and intensification of coloniality. Neoliberalism. as the contemporary realisation of both colonialism and capitalism, is exemplified in higher education in the form of competitive global rankings and the related quest for global 'excellence', both of which amplify systems and structures remaining from a colonial past (Enslin and Hedge, 2024: 233). Complicity with global rankings also extends, and may be mandated by national governments that aim for their universities to be recognised as 'world-class' (Barnett 2020: 16, as cited in Enslin and Hedge, 2024: 234), and with rankings doing 'some of the work of governing for the state, as a proxy for creating knowledge-economies' (Robertson 2022: 433, as cited in Enslin and Hedge, 2024: 234).

Within the frame of geopolitics of knowledge premised by Mignolo's (2011b), Shahjahan and Baizhanov suggest that global university rankings both project a 'universality of quality and excellence' and reproduce 'colonial knowledge/power relations' (Shahjahan and Baizhanov 2023: 261, as cited in Enslin and Hedge, 2024: 34).

EMU is not exempt from the influences and this phenomenon of the neoliberalism, to the extent that EMU is also subject to the global rankings. For instance, in a ranking developed by the British magazine Times Higher Education in 2023, Eduardo Mondlane University ranked 27th among the best universities in sub-Saharan Africa. The 2023 ranking, which was 59.9, focused on five main pillars containing different metrics scored by the university, namely: resources and finance (61.8), access and equity (42.6-44.7), teaching ability (38.1-47.8), student engagement (81), and impact on the African continent (74.5) (Times, Higher Education, 2023).

Eduardo Mondlane University (EMU) participated in 2023 for the second time in the prestigious Impact Ranking by Times Higher Education (THE), which assesses the performance of universities in relation to the United Nations (UN) Sustainable Development Goals (SDGs). This ranking aims to highlight the contributions of higher education institutions in areas such as sustainability, equality and innovation. In this ranking, the university was evaluated in relation to three specific SDGs: SDG 2 (Zero Hunger and Sustainable Agriculture), SDG 3 (Good Health and Well-being) and SDG

15 (Life on Land), and scored 57.9 in SGD2, ranking among the top 101-200 out of a total of 647 participating institutions. Specifically, the university reached 91.9 points for training of graduates in agricultural sciences, 80.8 points for significant scientific production, and 62.5 points for relevant actions in the fight against hunger at national level. In SDG 3, EMU reached a score of 52, ranking among the 601-800 best out of 1,218 institutions. It reached 81.7 and 51.8 points for scientific production and collaborations in health services, and 28.9 for training of graduates in the health area (*UEM*, 2024a).

In 2024, the university ranked 32nd among the best universities in Africa in the EduRank System and scores positively in several disciplinary fields, obtaining more than 50 percent in around 29 research topics assessed, with emphasis on the field of medicine and environmental sciences, among others, where it appears with honourable mention, namely epidemiology and engineering (UEM, 2024b).

Eduardo Mondlane University also stands out in World university rankings, having maintained its position in 2024, among the 1,201 to 1,500 universities, in a series of around 3,000 higher education institutions evaluated. In the area of teaching, the score reached is 10.5; in the research environment, 9.0; in publications, 58.4; in the link between university and industry, 20.6; and, in internationalisation, it reached a score of 52.2, out of 100 being required in each area (UEM, 2024c)

The position reached by the university in the various rankings while, on the one hand, it portrays EMU as a prominent institution in the academic panorama on the African continent and elsewhere, it also, on the other hand, shows the willingness to excel on its three pillars (teaching, research and outreach), in order to gain recognition as a significant knowledge production system. It may be, according to Enslin and Hedge (2024), a setback for the decolonisation movement initiated by the university.

Enslin and Hedge (2024) stated that while the rankings' criteria for success are designed to exclude all but those institutions already able to meet them, they are poor proxies for quality. Moreover, global rankings, part and parcel of the neoliberal capitalist university, are in direct tension with an agenda that seeks to decolonise.

Since the Independence, Eduardo Mondlane University has gone through a succession of leaders which, in a unique and continuous way, have driven its development at each historical moment (see Appendix III, Table 3). The following lines present the profiles and achievements of the rectors who contributed to the development of the university within the sociopolitical and economic context in which the country found itself, and the dynamics of the higher education system.

After Independence, EMU was led by six rectors, namely: Fernando Ganhão (1976-1986), Rui Baltazar (1986-1990), Narciso Matos (1990-1995), Brazão Mazula (1995-2007), Filipe Couto (2007-2011), Orlando Quilambo (2011-2022), and, recently, by Manuel Guilherme Júnior, whose term began in May 2022. Depending on the socioeconomic and political context of the time, each of these rectors played a fundamental role in the development of EMU, designing strategies, plans and programmes to respond to the different challenges that were posed to the development process of this institution (Quilambo, 2022: 474).

Fernando Ganhão was the first rector of EMU and led the university during the first ten years of the institution's existence (1976-1986), a period dominated by the country's socialist regime. Graduated in History in Poland, his filiation in political and civil organisations include the Mozambique Liberation Front (FRELIMO), the Permanent Commission of the Popular Assembly, the first chairmanship of the Mozambique Olympic Committee. Professor at the Social Sciences Training and Research Unit at EMU, he was also Rector of the Technical University of Mozambique.

His government was marked by the university's integration into the "ideology of the Party" FRELIMO (Mazula, 1995:162 as cited in Quilambo, 2022), by a political interest in transforming the university and its teaching content, breaking with the philosophy of the courses in force at the then University of Lourenço Marques. The expectations towards the University role to fulfill national interests were high. Accordingly, this phase was also marked by a vision of training human resources who could serve the Mozambican revolution, tackling the "central issues of the economy" (Meneses, 2005: 49, as cited in Quilambo, 2022). Under Ganhão's leadership, in order to guarantee staff who could ensure the teaching-learning process, the University adopted a strategy of stabilising its human resources, through the establishment of a teaching and research body, by retaining the best undergraduate students, using teaching assistants, and hiring foreign teachers. In response to the challenges of restructuring the national education system in the first years of Independence, EMU embraced the project of training teachers for secondary education. This project was materialised through the establishment, in the late 1970s, of the Faculty of Education (Buendía, 1999: 245 as cited in Quilambo, 2022).

Rui Baltazar was the second rector of EMU, having directed the institution between 1986 and 1990. This was a period of the implementation of the Structural Readjustment Programme (1987), and the Constitutional Reform oriented towards multiparty democracy, and the establishment of a market economy. Rui Baltazar graduated in Law and Political and Economic Sciences from the University of Coimbra and was lecturer at the Faculty of Law of EMU. He has taken up different roles in the national political sphere as minister of justice of the Transitional Government in Mozambique, member of parliament, minister of finance, ambassador of Mozambique to the Kingdom of

Sweden, advisor to the President of the Republic of Mozambique, and president of the Constitutional Council.

During his term, EMU introduced new curricula and pedagogic regulations, reopened the Faculty of Law, and reintroduced the courses in mathematics, physics, chemistry, history and linguistics. The university began to implement important programmes to improve the quality of teaching in engineering and science-related courses, such as BUSCEP (Basic University Sciences Experimental Project) (1986), and the STADEP (Staff Development Programme) (1989) (MANDLATE, 2003 as cited in Quilambo, 2022).

Strengthening international cooperation initiated during Ganhão's term was one of his contributions to the development of EMU. Thus, the university expanded its cooperation relations with several organisations and countries, namely with the Swedish Agency for Research Cooperation (SAREC), the United Nations Development Programme (UNDP), the United Nations Population Fund (UNPFA), the Food and Agriculture Organisation (FAO), the World Bank, the Ford Foundation, the Calouste Gulbenkian Foundation, the Netherlands, Italy, England and the former Federal Republic of Germany (Quilambo, 2022).

Narciso Matos was the third rector of EMU between 1990 and 1995. PhD in Chemistry from the University of Berlin (Germany), he was the head of the Chemistry Department, director of the Faculty of Sciences, and is currently the Rector of the 'A Politécnica' University, based in the city of Maputo. Professionally He has taken up the role of secretary-general of the Association of African Universities, also served as director of the International Development Programme of the Carnegie Cooperation of New York, and executive director of the Foundation for Community Development in Mozambique. His political affiliation includes the Mozambican Parliament.

During Narciso Matos' term, it was beginning a new historical stage in the process of social, economic, cultural and political development in Mozambique. During this period, EMU faced challenges and difficulties, particularly related to its structure, autonomy, teaching and technical-administrative staff, students, transport and finances. Driven by the need to overcome these challenges, the university developed the first planning effort - *Present and Perspectives for the Future* -, later transformed into the Institutional Capacity Building Project, financed by the World Bank. This project boosted the training and retention of qualified Mozambican staff, increased research activity and student admission rates. In addition, the Articles of Association and the first Regulations of the Teaching Career of EMU, designed during Rui Baltazar's term, was approved, and it was introduced the Open Fund for Research. Concerning the university access, the admission exams was institutionalised as an entry criterion

(Decree no. 80/90, of 26 September). More importantly, EMU launched the E-mail services nationwide through the EMU's Computer Centre (Quilambo, 2022).

Brazão Mazula was the fourth rector and led EMU between 1995 and 2007. With a degree in Philosophy and Theology from the Major Seminary of S. Pio X in Lourenço Marques, he was ordained a priest for the Diocese of Vila Cabral (now Lichinga). PhD in History and Philosophy of Education from the Faculty of Education of the University of São Paulo, he held several positions in the then Ministry of Education and Culture. He was also the first president of the National Elections Commission, and executive director of the Centre for Studies on Democracy and Development.

His term occurred during the construction of the democracy in Mozambique, a corollary of the signing of the General Peace Agreement (1992) and the holding of the first General and Multiparty Elections in Mozambique (1994). It was during his term that EMU approved its first Strategic Plan (1998-2003), aimed at improving academic, administrative and financial efficiency; and improving the quality of teaching (UEM, 1998, as cited in Quilambo, 2022). Within the scope of this plan EMU carried out several projects, with particular reference to Higher Education Project 1 and Reform of University Administration and Management Project (RUMA) which, among other aspects, resulted in curricular reform, reform of the financial management system, administrative and management reform, training of staff (teachers and technical and administrative personnel), and the construction of several infrastructures (UEM, 2003 as cited in Quilambo, 2022). The university also increased the course offer through the establishment of new units, both in the city of Maputo (School of Communication and Arts) and in the provinces (Higher School of Hotel Management and Tourism in Inhambane and the Higher School of Marine and Coastal Sciences in Quelimane, the Branch of the Faculty of Law of EMU in Beira) (Quilambo, 2022).

Filipe Couto was the fifth rector of EMU, between 2007 and 2011, in a context of plurality of higher education institutions. During his term, it was dominat the debate on the issue of the quality of higher education and the role of the University in the social and economic development of the country. Graduate in Philosophy from the Umaniana University (Rome-Italy), PhD in Dogmatic Theology from Münster (Germany), and PhD in Sociopolitical Sciences qualifying for Full Professor from the University of Paderbon (Germany), he was ordained a priest in Lichinga and parish priest of the Cathedral of Nampula. He was also rector of the Catholic University of Mozambique, and a member of the National Council for Higher Education, the Council of Rectors, and the National Council for Combating AIDS (Quilambo, 2022).

During his term, EMU approved its second Strategic Plan (2008-2012), aimed at implementing and monitoring academic reform; promoting equitable access; ensuring excellence and quality in teaching, research and extension activities; developing the

physical plant; developing and enhancing human resources; promoting administrative and management efficiency, communication and marketing; and developing and strengthening national, regional and international cooperation (UEM, 2008, as cited in Quilambo, 2022). Within the framework of this Strategic Plan, EMU implemented several actions, with emphasis on the establishment of the Office for Regional Integration, for Academic Reform (2009), which instituted a training system by academic cycles corresponding to the bachelor's, master's and doctoral levels. The university also approved the Research Policy, created the Communication and Marketing Centre, and introduced distance learning. Concerning partnerships, the university strengthened cooperation with several national and international institutions, with particular emphasis on SIDA/SAREC. Regarding infrastructure development, the university started the operation of the *Pedagogic Complex*, and completed the construction of Brazão Mazula Library. As part of its expansion strategy, new academic units were created, namely the Higher School of Entrepreneurship and Business in Chibuto, the Higher School of Sports Sciences, and the Higher School of Rural Development in Vilankulo. There were also created two internal administrative units, specifically the Centre for Studies and Coordination of Gender Affairs and the Editorial Unit of EMU Scientific Journal (Quilambo, 2022).

Orlando António Quilambo was the sixth rector of EMU and led for two terms, between 2012 and 2022. He holds a Bachelor's Teaching degree in Chemistry and Biology from EMU, a diploma degree in Biology from the Higher Pedagogic School of Gustrow (former German Democratic Republic), and a PhD in Natural Sciences from the University of Groningen (The Netherlands). He has taken up several university management positions, such as head of the Department of Chemistry and Biology at the Faculty of Education, deputy director of the Faculty of Biology, Director of the Faculty of Sciences, scientific director, and academic vice-Rector. He is affiliated to the Mozambican Academy of Sciences, the Association of African Universities, the Association of Portuguese-Speaking Universities, the Association of Rectors of the Universities of the Commonwealth of Southern African Countries, and the Distance Education Association of Portuguese-Speaking Countries (Quilambo, 2022).

He has taken up the leadership of EMU at a time when the Strategic Plan for Higher Education (2012 - 2020) was being drawn up and implemented. During his first term (2011-2016), the university approved its vision and mission, the excellence initiative and registered an increase and diversification of undergraduate and postgraduate courses. His achievements included the improvement in quality of the instruments regulating the teaching and learning process, and research management. As such, EMU approved the Postgraduate Regulations, created the Office for Academic Quality, and introduced the Academic Quality Assessment and Assurance System. Moreover, the university defined its lines of research, and created research centres (the Regional Centre for Oil and Gas Studies and Technologies, the Centre for Studies in Agro-Food

Policies and Programmes, the Centre for Trauma Prevention and Research, the Centre for Marine Technology Studies, and the Centre of Excellence in Hospitality and Tourism). The university institutionalised the EMU's Scientific Gala and implemented a democratic and collegial governance decision-making processes. In the same period, the standard regulations for faculties, schools, centres and the Central Services was approved, as well as several university governance and management instruments, such as the Teaching Career Regulations, the Performance Evaluation System and the Researcher Career Regulations, were review and updated (Quilambo, 2016, as cited in Quilambo, 2022). His second term (2016-2022) focused on institutional reform, the beginning of the implementation of EMU's Strategic Plan (2018-2028), which advocates the transformation of EMU into a research university. During this period, EMU implemented the Resources Mobilisation Strategy, which included the entrepreneurial initiatives and the alumni initiative. Aiming to consolidate postgraduate studies at EMU, the Regulations and the Curricular Framework were approved, and the EMU's Postgraduate School was established (Quilambo, 2022).

Manuel Guilherme Júnior is the seventh rector of EMU, whose 5-year term began in 2023. He begins his term in office at a time when EMU is still in the initial phase of institutional reform within the framework of the implementation of its 2018-2028 Strategic Plan, aiming to become a research university. He holds a Law Degree from the Faculty of Law of Eduardo Mondlane University, a Master's Degree and a Postgraduate Degree in International Commercial Law from the Faculty of Law of the University of Macau-China, and a PhD in Law from the Faculty of Law of Eduardo Mondlane University through the Legal Cooperation Centre with the Faculty of Law from the University of Lisbon. Lawyer, consultant and lecturer at the Faculty of Law of Eduardo Mondlane University, he was director of the Centre for Studies on Regional Integration Law of SADC, director of the Cooperation Office of Eduardo Mondlane University, and Member of the Higher Council of the Administrative Judiciary. He was also director of the Faculty of Social Sciences and Humanities at Zambeze University in Beira, coordinator of the Law Course at the Faculty of Economics and Management at the Catholic University, also in Beira (https://guilhermejr.uem.mz).

The ongoing Institutional Reform of EMU, based on EMU's Reform Agenda is expected to last until 2025, and it is focused on reviewing and adapting the structure, culture and management, and governance processes of EMU to become a research university. Simultaneously, the university is also focused on fulfilling the United Nations 2030 Agenda, by carrying out several actions to place the Sustainable Development Goals (SDGs) on its own institutional agenda. Supported by the Cooperation Policy, approved in 2020, the diversification of partnerships and internationalisation continue to be the main priorities in the field of cooperation at EMU, considering the desideratum of its transformation into a research university, the changes in the cooperation models and approaches worldwide (UEM, 2024).

The succession of rectors and the initiatives developed by them demonstrate a vision of growth for the university in all its domains. There is evidence of actions to consolidate the initiatives initiated by the outgoing rectors, thus strengthening the status of the university in the Mozambican society.

3.5.4.1. Organisational Structure

The university's organisational structure changed over the years as external and internal circumstances demanded the university to adjust or adopt new forms of organising its management and administrative structure.

The highest structure of the university is the University Council (Deliberative Body) below, which is the rector who also presides over the University Council and the Academic Council (Advisory Body). The documented organic structure is presented below, in figure 5.

In its current composition, the university collegial bodies include two others, namely the Rector's Council, which includes the directors of the university Central Services, and the Board of Directors, formed by the directors of the academic units and centres.

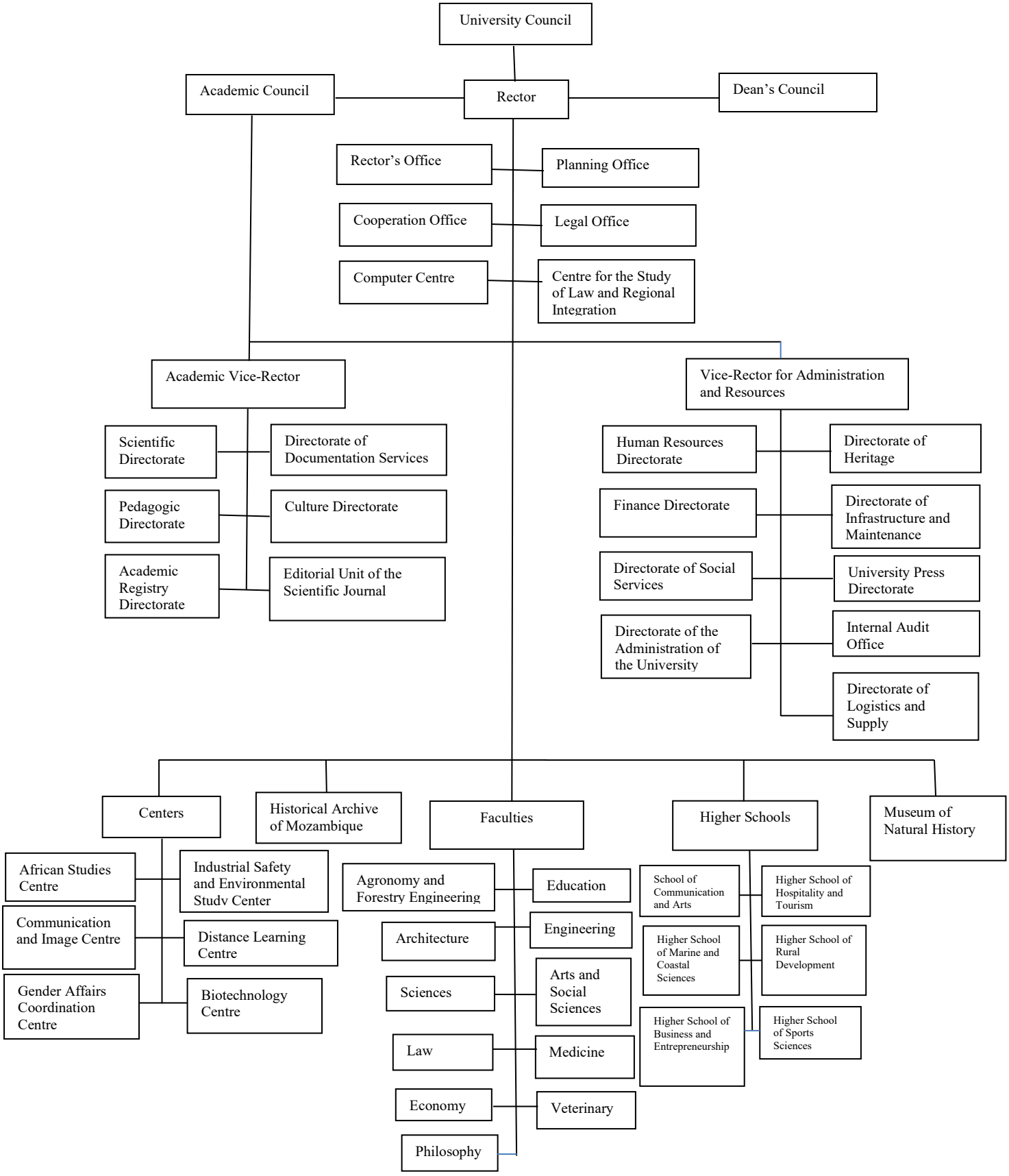

Figure 5: EMU's Organisational Structure (Deliberation no. 20/CUN/2005)

2.5.4.2. Academic Structure and Programmes

The university's course offer expanded over the years. By 2012, the university was offering seventy-nine *licenciatura* programmes, forty-three master's programmes and two doctoral programmes delivered by eleven faculties and six schools (UEM, 2012). By 2020, the number of courses offered increased, as the *licenciatura* programmes reached a hundred and four, seventy-nine master's programmes, and eleven doctorate programmes (see Appendix IV). In 2021, there was an increment in the offer of master's courses (eighty-five) and doctorate programmes (fifteen) if compared to the previous year. New degrees and specialisations amongst the existing courses, courses restructuring, and new study fields were introduced, diversifying the course offer even more.

The university offers undergraduate programmes in eight different study fields, namely agronomic sciences, biological sciences, human sciences, natural and exact sciences, social and applied sciences, engineering, arts, and health (see Appendix V).

The course offer is broad in the field of social and applied sciences. Health, biological sciences, and agronomic sciences present a limited course offer. The level of investment needed in laboratories, supplies, and equipment, including maintenance costs is probably one of the factors that prevent the introduction of new courses in these fields.

In 2024, EMU was offering eighty-one undergraduate courses grouped in eight fields: human sciences (fourteen); applied social sciences (twenty-five); exact and earth sciences (thirteen); health sciences (two); linguistics, literature and arts (three); engineering (eleven); agricultural sciences (nine); and biological agricultural sciences (four). Seventy-one postgraduate courses are being offered, of which fifty-seven are at master's level and four are at doctoral level, distributed in four fields: human sciences (thirteen), applied social sciences (thirty-five), exact and earth sciences (ten), and agricultural sciences (thirteen) (UEM, 2024d, UEM, 2024e). Eduardo Mondlane University has existed now for more than 50 years and, despite the varied offer of master's courses, PhD programmes are still limited to only a few.

The national conjuncture, the changes in the economy and society greatly influence the emergency of new courses and the restructuring of the existing courses. Being aware of its role and society's expectations, the university's contribution is focused on training staff for different sectors, producing knowledge in areas of specialisation and serving the community through extension and innovation.

CHAPTER 3

Methodology

This chapter discusses the methodology employed in carrying out this study. It begins with the presentation of the research design, data collection methods, and analysis. The ethical considerations are discussed at the end of the chapter.

3.1. Research Design

This is a case study design employing mixed methods for collecting and analysing data. There is an indication in the literature that the participatory evaluation approach (in the form of PADev) has never been tried out in a university setting, although it has been applied with secondary school children (Dietz et al., 2013). Therefore, the PADev experiment at EMU was performed covering a period from 1976 to 2016 in order to establish the suitability of the method in measuring the impact of development interventions in a participatory way in a university setting.

Most PADev studies have been conducted in an African context, specifically in rural Ghana and Burkina Faso, employing participatory evaluation of development methods to get a holistic perspective of the local community on change and development.

Overall, the studies intended either to use the PADev method to address perceptions and beliefs on local development related issues (Schipper, 2012; Audet-Belanger, 2010; Bohmer, 2009, Oosterheerd, 2009; Marsais, 2009; Kazimierczuk, 2009; Lahai, 2009), and the weaknesses and shortcomings identified during the PADev experiments aiming to further improve the methodology (Bymolt, 2010), or to focus on the utilisation of PADev results and its empowerment capability (Vlaminck, 2011), and the integration of participatory methodologies into monitoring and evaluation within the frame of participatory development (Obure, 2008).

The PADev project started in 2008 in Northern Ghana - Sandema and Langbinsi - and Southern Burkina Faso - Tô - where local organisations received support from donor agencies. PADev involved representatives of the local population, divided into different categories which included men and women, young and old people, various ethnic and religious groups, and citizens and officials. The categorisation of the local population aimed to capture a broad view on development interventions implemented in the region. The whole list of interventions found in the study area was established, as well as a qualitative assessment of their success or failure. The impact of all the interventions was ascertained through discussions in separate groups to facilitate a free and open discussion, and to allow group comparisons. The order adopted to discuss the various issues was kept as the original design, which ranged from the one-dimensional time line

to the multi-dimensional list of interventions with impact on various capitals, and the valuation of the best and worst five projects, to the multi-dimensional method of assessing the impact of interventions per wealth class by various social groups (Zaal, 2009).

The PADev findings from Northen Gana and Southern Burkina Faso confirmed the effectiveness of the method in gathering information concerning the development initiatives from the standpoint of the various social groups in those societies. As the direct beneficiaries, the level of knowledge of these interventions the groups had was profound, and the quantity of recalled interventions showed the long-term, broad and intensive relationship the local population had with the outside world either through development aid or government assistance (Zaal, 2009).

The implementation of PADev design at Eduardo Mondlane University enabled the recollection and share of experiential and factual knowledge on institutional change and development based on participants' relationship with the institutional world, thus PADev data allowed the production of knowledge claims structured and organised based on participant's social interests and the way they positioned themselves in the institution.

Since social realism provides a perspective of knowledge as having a social basis, it is assumed to be grounded on the social activities, forms of life or practices of particular professional or other communities, thus translating their social origins and histories, values and interests. PADev configuration adopted to carry out the workshop departs from a round of introductions to familiarise both the facilitators with the workshop participants. From the introduction section, it was possible to gather comprehensive data on participant's individual stories or profiles, which included participants' institutional affiliation, academic training and qualifications, professional trajectory and position, and circle of influence. From the data, the individual social and historical context, and personal interests of each workshop participants were captured, and it provided an overview of the group profile and shared value and interest. These aspects alone were relevant to consider in the process of producing knowledge, that is reaching consensus and give meaning collectively. These data also allowed to build a timeline from where participants were positioned in the recollection of their memories on institution's change and development. Accordingly, PADev provides both social and historical context for knowledge production, as it relates to chronological recollection of events, changes and interventions, but it departs from participant's individual socio-professional trajectory and connections.

3.1.1. Study Population and Sampling Frame

The study population was heterogeneous, divided into two broad categories, namely the university community and the university external stakeholders. The university community included academic staff and non-academic staff, specifically university top managers (rectors, vice-rectors, and central management directors), deans and deputy deans (faculties, schools, centres, and services), managers (faculties, schools, centres), academic and non-academic staff (heads of departments, course coordinators, course directors, teachers, researchers, librarians, and technical and administrative personnel), and alumni.

The second category, the external stakeholders, included donor country representatives, embassy representatives, development agency representatives, representatives of the national education authorities (the Ministry of Education and the Ministry of Science and Technology, Higher and Technical Vocational Education), as well as representatives of professional organisations/associations.

The sampling design was non-probabilistic, employing purposive and non-proportional quota sampling for the selection of the study participants. A purposive sampling strategy was employed to select donor country representatives and foreign development agency representatives, based on partnership criteria. Moreover, former and current rectors, vice-rectors, central management directors, deans and deputy deans, and managers were also selected using the same strategy, given the peculiarity of their positions within the university. The alumni selection also followed this purposive strategy, based on the following criteria: course, reachability, and availability.

A non-proportional quota sampling strategy was employed for the selection of academic and non-academic staff. To do so, a prior stratification of the study population was performed based on the following criteria: diversity in demographic markers (gender), function (lecturer, researcher, and CTA; see further on in this study); (ii) teachers' occupational category; (iv) contractual regime (full-time and part-time). Afterwards, from each stratum, elements were selected in order to compose a heterogeneous group including lecturers, researchers, and technical and administrative personnel.

The study units included academic and administrative units, and were selected employing purposive sampling using the following criteria: (i) period of existence, (ii) the relevance of their study field, and (iii) the volume of external support received. In the original design, a total of 18 units from EMU were selected making a 'long list' of potential study units. The selected units were comprised of nine academic units, six administrative units, and three management units.

The academic units in the 'long list' included the Faculty of Education (FACED), the Faculty of Engineering (FENG), the Faculty of Sciences (FS), the Faculty of Agronomy and Forestry Engineering (FAEF), the Faculty of Economics (FE), the Faculty of Arts and Social Sciences (FLECS), the Faculty of Medicine (FMed), the Centre for Academic Development (CDA), and the African Studies Centre (CEA). Nonetheless, the Faculty of Agronomy and Forestry Engineering, the Faculty of Economics, the Faculty of Arts and Social Sciences, and the Faculty of Medicine, which were initially selected, were withdrawn due to two reasons, namely, time constraints, taking into account the field work period, and lack of resources to cover the field work in all 18 units, since the logistics to carry out the workshop was proven to be expensive, thus forcing the redistribution of the scholarship budget.

The study sample was thus refined and reduced to include five academic units out of the original nine, namely FACED, FENG, FS, CDA, and CEA.

The administrative units were the Human Resources Directorate (DRH), the Finance Directorate (DF), the Directorate of Documentation Service (DSD), the Scientific Directorate (DC), the Planning Office (GP), and the Directorate of Property Administration and Institutional Development (DAPDI). The management included the Rectorship, the Academic Vice-Rectorship (VRA), and the Vice-Rectorship for Administration and Resources (VRAR). For analytical purposes, the administrative and management units were aggregated in a single broad category called 'Central Services'.

The stakeholders selected to be part of the study included three professional associations, namely the Association of Psychology of Mozambique (APM), the Mozambique Engineers Association (OrdEM), and the Geological and Mining Association of Mozambique (AGMM). The two local education authorities included the Ministry of Education through the Directorate for the Coordination of Higher Education (DICES) and the Higher Education, Science and Technology (HEST), the Ministry of Science and Technology, Higher and Technical Vocational Education, through the National Directorate of Higher Education (DNES). Three donor countries were selected, specifically Sweden, the Netherlands and Italy. Therefore, Mozambique based representatives from Swedish International Development Cooperation Agency (Sida), Italian Agency for Development Cooperation (Italian Cooperation), and the Netherlands Organisation for International Cooperation in Higher Education (Nuffic). Other external stakeholders included the Centre for Applied Psychology and Psychometric Exams (CEPAEP) and National Council for the Assessment of Quality in Higher Education (CNAQ).

The number of study participants reached one hundred (100) individuals (see Table 2 below), and amongst them forty-five (45) were personally interviewed, five (5) were surveyed through questionnaires, and fifty (50) took part in 10 workshops. Concerning

the workshops, four (4) were carried out in the Faculty of Education, one (1) was performed at the African Studies Centre, one (1) was carried out at the Centre for Academic Development, three (3) were carried out in the Faculty of Sciences, and one (1) in the Faculty of Engineering.

Table 2: Number of Participants by Study Unit and Gender

EMU's Unities / External Stakeholder	Participants		Total
	Male	Female	
Faculty of Education (EMU)	18	8	26
Faculty of Sciences (EMU)	10	4	14
Faculty of Engineering (EMU)	5	2	7
African Studies Centre (EMU)	8	4	12
Centre for Academic Development (EMU)	4	3	7
Centre for Studies and Psychological Support	1	0	1
Rectors and former rectors (EMU)	4	0	4
Vice-Rectors (EMU)	1	1	2
Human Resources Directorate (EMU)	0	1	1
Finance Directorate (EMU)	1	0	1
Directorate of Documentation Service (EMU)	1	0	1
Directorate of Property Administration and Institutional Development (EMU)	0	1	1
Scientific Directorate (EMU)	0	1	1
Pedagogic Directorate (EMU)	0	1	1
Planning Office (EMU)	0	1	1
Cooperation Office (EMU)	1	2	3
Quality Office (EMU)	1	0	1
Directorate for Coordination of Higher Education (DICES)	2	0	2
National Directorate of Higher Education (DNES)	0	1	1
National Council for the Assessment of Quality in Higher Education (CNAQ)	0	1	1
Donor Counties (Ministry and Embassies)	2	2	4
Donor's Funding Agencies	2	2	4
Professional Associations and Organisations	4	0	4
TOTAL	65	35	100

In the field and taking into account the study object, several conditions needed to be fulfilled to make the PADev approach possible and useful. First, the need for participants who witnessed or experienced the various periods of the institutions' life. The coverage of the period under analysis, verified through participant's contractual bond and their inclusion in the sample, would provide a more comprehensive picture

of the university development path. There were gaps tracing back events, interventions and changes that needed to be fulfilled by institutional documentation due to the lack in the sample of individuals who could report each of the periods.

Second, the need for study population (university community) and study participants to be interested, deeply committed and available to take part in the study. This was not the case in all study units, despite prior planning and organisation of the data collection process from the researcher and support from EMU leadership.

Beside the Faculty of Education and some units from the university central management, the organisation of PADev sessions at other selected faculties and units often proved to be difficult. Hardly anyone was available and there were those who appeared to be very reluctant to give a free and frank assessment of the history of their units.

When it became clear that PADev would not always attain the desired outcome in terms of meaningful data gathering concerning EMU's development history and the impact of foreign assistance to that development, other additional sources to collect information were employed as specified below in the data collection instruments section. Hence the purposes of the study shifted to: (i) studying PADev and additional methods as means for understanding EMU's development; and (ii) to study EMU's development and the impact and appreciation of internal and external interventions (not only using PADev but also other methods: mainly written documentation and personal interviews.

The participants' profile both from university community and external stakeholders were summarised below in Tables 3 and 4. Given the nature of the institutions, the summary of participant's profile was based on their personal academic and professional story as such. The profile of participants from the university community was drawn based on professional variables such as academic qualifications, contractual regime, occupational category, professional experience, function and employment status.

Table 3: Profile of the University Community

Professional Variables	Categories of Professional Variables	Number of participants
Academic qualifications	PhD	31
	Master's	29
	Licenciatura	17
	Bachelor	0
	Secondary	0
	Primary	0
Contractual regime	Part Time	0

	Full time	74
	None	3
Occupational category (Lecturers, Researchers and Technical and Administrative Personnel)	Full Professor	2
	Assistant Professor	10
	Associate Professor	13
	University Assistant	29
	Probationer Assistant	4
	Coordinating Researcher	1
	Principal Researcher	1
	Auxiliary Researcher	0
	Assistant Researcher	8
	Intern Researcher	0
	Specialist	0
	Senior Technician level 1	9
	Technician	0
	Technical Assistant	0
	Assistant	0
Professional experience	Prior work experience	45
	Non-prior work experience	32
Function	Lecturer	48
	Researcher	10
	Technical and Administrative Personnel	15
	Non specified	4
Employment Status	Former Rector	3
	Rector	1
	Vice-Rectors	2
	Director of Central Services	5
	Former Dean	2
	Dean	2
	Deputy Dean	8
	Head of Department	8
	Head of Section	2
	Course Director/Coordinator	4
	Administrator	3
	Programme Officer/ Project Coordinator	6
	Alumni	6
Field of Expertise	Exact and Earth Sciences	8
	Biological Sciences	4
	Engineering/Technology	10

	Health Sciences	10
	Agricultural Sciences	1
	Social Sciences	13
	Humanities	30
	Linguistics	1
	Literature and Arts	0

The profile of the participants identified as university's external stakeholders was drawn based on variables such as country of origin, name of the organisation or institution, type of organisation or institution, and the position held by the participant.

Table 4: Profile of the EMU's External Stakeholders

Country of Origin	Name of Organisation/Institution	Type of organisation/ institution	Position	Number of participants
Mozambique	Geological and Mining Association of Mozambique (AGMM)	Professional Organisation	President	1
Mozambique	Centre for Applied Psychology and Psycho-metric Tests (CEPAEP)	Health Institution	Director	1
Mozambique	Association of Psychology of Mozambique (APM)	Professional Organisation	Vice-President	1
Mozambique	Mozambique Engineers Association (OrdEM)	Professional Organisation	Secretariat	1
Mozambique	National Council for the Assessment of Quality in Higher Education (CNAQ)	Quality Assurance Authority	President	1
Mozambique	Directorate for the Coordination of Higher Education (DICES)	Education Authority Directorate	Deputy-Director	1
Mozambique	National Directorate of Higher Education (DNES)	Education Authority Directorate	National Director	1
Mozambique	Ministry of Education - Higher Education, Science and Technology (HEST)	Education Authority	Project Coordinator	1

The Netherlands	Ministry of Foreign Affairs	Education Authority	MHO Programme Officer	1
The Netherlands	Ministry of Foreign Affairs - Inspection of Cooperation and Policies (IOB)	Foreign Affairs Authority	Programme Evaluator	1
The Netherlands	The Dutch Organisation for Internationalisation in Education (Nuffic)	Funding Agency	MHO Programme Evaluator	1
The Netherlands	The Dutch Organisation for Internationalisation in Education (Nuffic)	Funding Agency	NICHE Programme Officcer	1
The Netherlands	The Netherlands Embassy	Country Representative	Programme Officcer	1
Sweden	Sweden Embassy - The Swedish International Development Cooperation Agency	Country Representative - Funding Agency	Secretary Programme Officer and Programme Manager	1
Italy	Italian Agency for Development Cooperation	Funding Agency	Training Programme Officcer	1

3.1.2. Data Collection and Analysis

This section presents the data collection process and the type of data collection instruments and techniques were employed in the study, as well as the methods adopted to analyse the data gathered through the various instruments and techniques.

From the time the credential was issued by the Rector's Office, I started the implementation of the data collection plan, which included to send to the deans or directors of all study units (academic and administrative) and stakeholders, a copy of the credential and a cover letter accompanied by the summarised research project to allow the study to be carried out in their units. For individual participants and invitation letters was send, requesting their availability to be part of the study. In order to carry out the PADev workshop, additional preparations were made once acceptance was granted by the deans, who indicated focal points to organise the whole process. The list of the employees was requested by the researcher, in order to carry out the selection of

participants according to the indicated sampling design. From there, contacts were made via focal point to schedule the workshops according to the availability of the participants. This strategy proven to be effective in reaching the participants.

However, in some academic units regardless of the preparations made and participant's confirmation, the workshop was cancelled in the site, due to the absence of the participants. That was the case of the Faculty of Agronomy and Forestry Engineering, where, after two failed attempts, the data collections process was withdrawn, and the case of the Faculty of Engineering, where the workshop with the staff was first postponed in the site and later withdrawn. Two possible explanations for the absence of participants might be considered. It seems that there was little mobilisation on the part of the deans of the units to encourage participation of their employees in the workshop, and the use of workshop for collecting data might had mislead participants concerning the objective of the workshop. Perhaps the subject of the research and the nature of the information to be collected inhibited participants by not considering themselves to be authorised sources, even though they were informed to share their own memories and experiences. The project would probably have been well received if it had been of an institutional nature, requiring the involvement and engagement of the entire university community, and not simply a PhD project. In any case, its results could demonstrate the value and potential of the PADev methodology for deepening issues related to the evaluation of programmes and projects. A clear example was the workshop with the central managers, were despite all Central Services directors been invited, few sent representatives and others simply did not show up.

The field work was successful in the Faculty of Education, as well as in the Faculty of Sciences, at the African Studies Centre and Centre for Academic Development.

The data collection started in the Netherlands, in May 2013, where stakeholders, specifically participants from the Ministry of Foreign Affairs and from Nuffic were contacted and interviewed.

In Mozambique, the field work took place from October 2013 to February 2014, where different data collections instruments and techniques were employed, following a flexible schedule that was dependent upon the participant's availability.

3.1.2.1. Data Collection Instruments and Techniques

A combination of data collection methods and techniques was employed to carry out the study, specifically a review of relevant documentation, focus group discussions in PADev workshops, semi-structured interviews with key informants, open-ended questionnaires, along with organising a form of feedback called 'crowdwriting' to ensure the richness of the data and data triangulation.

The PADev Workshop

Ten PADev workshops were organised with the academic units and the Central Services so as to unfold and deepen the issues regarding the process of change and development at EMU. A team of three composed by the researcher, assistant and rapporteur was established to perform the workshops. In addition, the workshop programme containing the topics in question was sent in advance to contextualise the participants, along with the relevant documents, credentials, cover letter and the summary project. The intent was to carry out PADev workshop in all five units (academic and research units) that took part in the study with all categories of participants, including academic and non-academic staff. Within each academic unit, it was planned to perform four PADev workshops with the unit managers (dean, deputy deans, administrator), board of directors (which, apart from the unit managers, includes heads of departments, course directors or coordinators), regular staff (lecturers and technical and administrative personnel) and alumni. In the research units, two workshops were planned with the centre managers (dean, deputy deans, administrators), and staff (lecturers, researchers, and technical and administrative personnel). A successful PADev experiment was achieved in the Faculty of Education, as all four sub-categories were part of designated workshop. A minor change was made for practical reasons concerning the level of participation. Therefore, some members of the board of directors joined the regular staff group participants.

At the Faculty of Sciences, two workshops were performed, since, by request of the unit, two sub-categories were grouped together, and the unit managers took part in the board of directors' workshop and the staff workshop took place separately. The alumni workshop was not organised, as the contact with the alumni was not facilitated by the unit, and the ones contacted were only available for interviews. It is important to refer that the alumni community at EMU was established in 2014, and the Faculty of Sciences only created their own alumni association. The non-existing alumni organisations was a constraint to track them and properly engage them in a workshop session as intended.

At the Faculty of Engineering, one workshop was performed with the Board of Directors, which includes the faculty managers. Regardless of the previous schedule, the workshop with the staff was postponed due to the absence of the staff invited and that confirmed their availability to take part in the workshop, and later on withdrawn for lack of commitment from the faculty staff. Instead, crowdwriting and interviews were performed with those willing to take part in the study.

At the Centre for Academic Development, one workshop was performed with the staff (lecturers). The dean and the heads of sections were interviewed, since they were not

available do engage in a workshop session due to the long absence on part of the board at the time the data collection was scheduled.

At the African Studies Centre, a workshop was performed with the research staff. The board members were interviewed on their own request.

As originally proposed by Dietz and colleagues (2011), the PADev workshops' exercises (see Appendix X) were conducted at EMU to achieve the following goals: (i) to document relevant historical events as remembered by workshop participants; (ii) to list the perceived changes in the course of time; (iii) to assess the most important changes that have occurred at the university in the eyes of the various study participants; (iv) to discuss participants' perceptions of positive and negative changes; (v) to list all development initiatives and interventions implemented during the past four decades; (vi) to assess the usefulness of the initiatives and interventions; (vii) to measure the proclaimed and perceived impact of the interventions; (viii) to select the best and worst interventions and assess their impacts; and (ix) to relate changes and interventions to establish perceived cause-effect linkages amongst them.

Grouping participants enabled interaction and dialogue between participants, joint reflection, and the active participation of individuals with a different professional status. PADev focus groups also encouraged participants to engage in an open discussion by sharing their experiences and knowledge. The employment of the stick as a facilitation tool to shift turns between participants was crucial to elicit participation, demote manifestations of power relations amongst participants and the prevalence of dominant voices, ensuring balanced participation. The PADev method further facilitated triangulation between the information gathered from different exercises and cross-checking between different participant groups. The workshops were recorded using flipcharts, notebooks, and digital devices, and later transcribed and compiled. The raw data were systematised in a digital PADev's data template and processed using the NVivo 12, a computer software programme for qualitative data analysis, which enabled the analysis.

Interviews: Face-to-face and Online

In-depth face-to-face and online interviews through Skype software were applied with key informants, both from the university and external stakeholders (see Appendixes XI, XII, XIII and XIV). Specific questions on the perceived changes and impact of their intervention/participation on the institution, and the impact of the institution on the surrounding environment were addressed to external stakeholders. Data from the interview were recorded using a digital voice recorder and transcribed afterwards. The transcripts were imported, coded, systematised, and analysed using NVivo 12. Coding the data enabled the generation of relevant analytical categories through the occurrence

of important key words, and the identification of the emerging patterns and themes to sustain the interpretation. Follow-up interviews were carried out to fill in the gaps identified during the data processing.

Crowdwriting

The crowdwriting, was used to fill some inaccuracies and gaps detected in the data acquired through the workshop. In combination with follow-up (individual and group) interviews, crowdwriting enriched the data gathering process on the main issues discussed in the workshops and interviews. Through crowdwriting, participants were encouraged to provide additional information for the questions asked and/or correct any misleading information that had been recorded.

Questionnaires

Open-ended questionnaires were administered to members of the faculties and centres in order to: (i) assess the changes recalled and the development interventions, (ii) link changes and interventions, and (iii) determine the impact of the interventions. Data from the questionnaire were processed using the Excel database format and used for data triangulation.

Written Documents

A range of written documents (national and sectoral policies, laws, strategic plans, operational plans, annual reports, statistical directories, project/programme monitoring, evaluation reports, and others) produced by different sources, such as the government, the university, donor countries, funding agencies, etc., constituted the secondary data source, and its content has been analysed as such. The documents content enabled the corroboration of the participants' statements concerning the issues under investigation. Reviewing education policies and their implementation strategies, with special reference to higher education, made it possible to connect the development features of the university with the country's development agenda.

Although the combinations of PADev workshops, semi-structured interviews, open-ended questionnaires, and crowdwriting required a lot of preparation, it was necessary to ensure that the study was carried out successfully. The constraints encountered in carrying out the PADev workshops with all categories of participants mostly due to participation rates, largely determined the combinations of these instruments and

techniques. PADev exercise alone proved to be a robust and comprehensive instrument for collecting diverse and in-depth information.

3.1.2.2. Data Analysis: Methods and Procedures

Overall, content analysis was performed to all data set from workshops, interviews, questionnaires and crowdwriting. As stated previously, the content analysis was enabled managing the raw data by using NVivo 12, through which interviews, workshop and crowdwriting transcribed files were imported into the software and coded based on the PADev conceptual and theoretical structure with its focus on development interventions and their influence on changes at EMU. Six steps entailed the data processing that enabled the analysis as described in the following lines.

1st Step: Data Recording

The data collection process involved a team of three, which included the researcher, as the facilitator and coordinator of the whole data collection process, and the research assistants, who were responsible for the recording. It resulted in a set of information presented in the form of text, audio, documents and pictures. Data from workshops were recorded using a flip chart block (62 x 86cm) hung from a tripod to allow participants to visualize the information being collected, and at the same time serve as a visual reference to encourage further sharing. Simultaneously, writing pad (210 x 297 mm) and digital voice recorder were used to complement the recording and ensure that no data were missing from the session. In addition, pictures were taken to show the environment in which the workshops were held. Interviews' data were recorded using writing (210 x 297 mm) pad and digital voice recorder. Questionnaires' data were recorded in the questionnaire template. Crowdsourced data were recorded in a questionnaire template.

2nd Step: Data Processing

Following the dada collection, all the raw data were gathered, transcribed and compiled. Workshop data were afterwards compiled in a digital PADev data template created in the Microsoft Excel spreadsheet to provide an overview of the raw data and allow systematisation. In addition, text data from PADev and other data sources were transcribed and later introduced in a separated database also created in a Microsoft Excel spreadsheet. Al the audio was also transcribed and tabulated in the referred Excel database. At last, a PADev project was created in the NVivo 12 software for data entry and analysis, specifically to perform content analysis.

3rd Step: Coding and Data Categorisation

Once all the data set was introduced (interviews, workshops, questionnaires and crowdsourced data), open and manual coding was performed to the files, which led to identifying recurring themes and the automatic coding. Then grouping and

categorisation of units in categories was performed, following the definition of analytical categories and its validation against the study objective.

Open and manual coding was performed by reading the content of the files and raising context units, which is the smallest units of text or snippets with significance that described or represented a code, encoded in record units.

Following the open and manual coding, the identification of recurring terms and auto-coding was performed. Word frequency query showed a certain number of the most frequent words in the transcripts that were filtered in order to only remain words relevant for the research topic. The auto-coding themes and sub-themes were generated by the frequency of words, categories related to the research theme, and also categories and units that enabled the confirmation of the categories of context. The themes and sub-themes were afterwards filtered to keep only those related to development interventions and changes. The codes generated from the auto-coding and from the open and manual coding were compared in a separate file to find similarities and differences and validate the nodes from the open and manual coding.

The process of grouping and categorisations was performed from the list of units, using the filter and joining the codes to identify categories of the context. This operation enabled to refine and order the recurring themes and grouping them by similarities and significance to create big categories from units that are similar and renaming them to reach the final categories. The identification of final categories was based on the following criteria: semantic (thematic categories), lexical (grouping context units by sense, synonym and close significance), association and equivalences. At last, the analytical categories were defined, and they represented grouped units sharing similar characteristics

4th Step: Analysis

The functionalities implemented in NVivo 12 were the structural matrix, mind map, and word cloud. The structural matrix configured by codes allowed for a cross-referencing analysis of the aggregated information from different sources and participants around the same code and for comparisons of the results coded in the matrix. The word cloud showed the frequency of words that appeared in the codes related to events, which allowed for the events most cited by the participants to be highlighted due to the impact they produced. The mind map allowed for the codes to be shown in relation to changes and development interventions that support the PADev method.

The inferences and interpretation focused on the suitability of the method in assessing development and change in a participatory way, taking into account PADev

participatory analytical and methodological category in comparison with other participatory assessment methods that fall short of doing so.

In addition, reactive sequence analysis was performed to document path dependence for the EMU's developmental sequence, by reflecting back in history to uncover a point in time when initial conditions cannot predict the development state attained by the university. PADev approach provides the means to do so. As a result, it was produced a historical narrative of the causal paths that led to EMU's development.

The sequence analysis took into account that (i) path-dependent analysis involves the study of causal processes that are highly sensitive to events that take place in the early stages of an overall historical sequence 'the order of events makes a difference'; and 'when things happen within a sequence affects how they happen'; (ii) in a path-dependent sequence, early historical events are contingent occurrences that cannot be explained on the basis of prior events or 'initial conditions'; (iii) once contingent historical events take place, path-dependent sequences are marked by relatively deterministic causal patterns or what can be thought of as 'inertia'[45] – that is, once processes are set into motion and begin tracking a particular outcome, these processes tend to stay in motion and continue to track this outcome (Mahoney, 2000).

Three moments characterised the content analysis of relevant documents that entailed the pre-analysis, organisation and analysis. First, based on the study objectives, the documents were searched and sorted. Second, the documents were organised and classified based on specific categories (reports, projects, programmes, laws and regulations, and plans). Third, the previously identified thematic categories through NVivo 12, enabled the content analysis of documents of various nature which entailed its interpretation and from there to draw conclusions concerned the study objectives.

3.2. Reliability and Validity

According to Crishna (2007), the goal of evaluation studies in social development is to answer the question of whether a project achieved the proposed outcomes. However, that is not the case of PADev, since its holistic perspective allowed the tracing of multiple interventions as recalled by study participants. This holistic perspective also provided a comprehensive overview of the underlying values, concepts, and ideas involved in the context of development that the participants have (Morse et al., 2001, as cited in Crishna, 2007, p. 225).

[45] With self-reinforcing sequences, inertia involves mechanisms that reproduce a particular institutional pattern over time. With reactive sequences, by contrast, inertia involves reaction and counter-reaction mechanisms that give an event chain an 'inherent logic' in which one event 'naturally' leads to another event (Mahoney, 2020).

The PADev workshops enabled the setting of an environment in which participants and facilitator were able to learn by sharing personal experiences regarding institutional facts.

Efforts were made to ensure the study's reliability and validity in order to make the study results trustworthy. Permission to carry out the study at the university was requested and granted; invitation letters were sent to the study units and consent given. Following the sample design, staff from the study units were invited to participate either in workshops or in doing interviews and filling in questionnaires. The participants' involvement in the study was limited, as they were not involved in the design of the data collection tools and preparation of the workshop, neither did they engage in the data processing and analysis.

The raw data were transcribed using digital PADev data templates and later a systematised PADev format report entailing a timeline of the local history and important events, perceptions of the changes, an inventory of development interventions along with a description of each intervention, the relationship between changes and interventions, and a perception of what were the best and worst initiatives. In addition, data from interviews were categorised, as specific themes derived from the study objectives were identified during data processing.

Moreover, to ensure reliability, multiple data collection methods were used and efforts made to triangulate data from a range of sources. The data collection instrument, specifically the PADev tool, was tried out with a group of lecturers from the Faculty of Education to assess its efficacy, accuracy, and reliability, and was facilitated by a PADev expert. In addition, for the purpose of validating the language, structure, and contents of the interview script, these were submitted for evaluation by experienced researchers at EMU.

Data were collected in a consistent way but not limited to the period originally proposed, for reasons beyond the researcher's control. Some workshops were postponed, study units withdrawn, and beyond that, time (the field work schedule) was the major constraint. To ensure the internal validity of the data, respondents' validation was performed by workshop participants, as they received transcripts to verify the accuracy of the information gathered.

3.3. The Research Process

This section describes the research process as it was planned and carried out, outlining the adjustments made to the research proposal, and its challenges and limitations.

The study was authorised by the rector of the university, and afterwards the sampled units were invited and informed about the study and its objectives through a presentation letter. After the consent of the deans of the units, a staff database was requested as the starting point for the identification and selection of the study participants. Afterwards, their availability was checked, and the data collection schedule for the workshops was organised per unit.

The PADev workshops were not conducted as initially planned. After the try out at the Faculty of Education, two attempts to organise the workshops at the Faculty of Agronomy and Forestry Engineering (FAEF) failed. Accordingly, FAEF was dropped from the sampled units. To foster the study within the remaining fieldwork period, a practical decision was taken to leave out some other units such as the Faculty of Arts and Social Sciences, the Faculty of Medicine, and the Faculty of Economics, which had not yet been contacted at that time. Even though the preparations with the Faculty of Engineering and the Faculty of Sciences already were set and looked promising, the two attempts to carry out the workshop with the staff from the Faculty of Engineering also failed. To overcome this situation, it was applied questionnaires with a large group of faculty staff with not success, since no responses from the questionnaires were received on time. Despite these set-backs, the fieldwork was conducted successfully in the Faculty of Education, Faculty of Sciences, African Studies Centre, Centre for Academic Development, and Central Services.

The representatives of the Central Service's units that did not attend the workshop were interviewed, except the Pedagogic Directorate's and the Cooperation Office's, who were not available.

The study presents some design issues. As participatory evaluation is grounded in qualitative research principles (Crishna, 2007), the first limitation of the study is related to the qualitative design, which employs predominantly qualitative methods. A quantitative design was not suitable for the purposes of the study, since the main goal was to engage the university community to assess their own development history. Since the interviews, workshops, and the crowdwriting did not reach all the intended participants, a questionnaire was developed to target those specifically. Once combined, both approaches would confer a greater degree of objectivity in the study and increase the effectiveness of the PADev approach.

Another limitation that affected the research is the fact that the method employed – PADev – did not really incorporate participation in the preparatory and subsequent phases of data collection as recommended in the PADev Guidebook (Dietz et al., 2013a). Accordingly, stakeholders were not involved in defining the evaluation, developing the instruments, collecting and analysing data, and reporting and disseminating results.

A third limitation relates to the use of the results of the study to represent a larger population, since the unit of analysis was restricted to three faculties, two centres, and six central services' units. The specificity and circumstances of the units did not allow for the complete generalisation of the results to the university as a whole.

3.4. Ethics

Following the procedures for conducting empirical research at EMU, the research project was submitted to the local scientific council (Faculty of Education) and afterwards to the Scientific Directorate of the university. The institutional approval to carry out the research was expressed in a letter signed by the rector of the university.

Some ethical issues were considered and addressed in the process of carrying out the research. One of the major concerns was related to intellectual property, since the study might disclose institutional information contained in the official documents. There was a possibility that the study might reveal the weaknesses of the institution, if there were any, and therefore face pressure to disregard them all, along with the thesis, especially where sensitive information was obtained and used. To overcome this situation, some sources of information, particularly institutional documentation, was not publicly exposed.

Another concern was related to the confidentiality of the information, privacy of the sources, and informants' consent regarding their participation in the study. The confidentiality of the information might potentially be broken, and the study might reveal the identity of the sources and therefore expose them. This situation was addressed by considering the ethical norms applied in research involving human beings and placed in the Code of Ethics of Science and Technology of Mozambique (*Conselho de Ministros*, 2007) and in another international regulations tool, the Universal Declaration on Biomedical and Human Rights (UNESCO, 2006). The Code of Ethics of Science and Technology of Mozambique, approved by Decree No. 71/2007 of 24 December, regulates the ethical aspects of scientific research regarding the protection of research participants. It applies to all areas where scientific research is conducted, establishing the basic principles of research (Article 4), duties of researchers (Article 6), and issues concerning participants and sources (Article 7, 8, and 9). The Universal Declaration on Biomedical and Human Rights embodies the principles, which set out the rules that guide the respect for human dignity, human rights, and fundamental freedoms. It also addresses ethical issues applied to humans, taking into account their social, legal, and environmental dimensions. In this regard, the Declaration establishes, amongst others, the principles of consent (Article 6), and privacy, and confidentiality (Article 9) (UNESCO, 2006). Informants' consent was given orally and recorded by a digital voice recorder. Whenever possible, the names of respondents were not publicly

disclosed, unless study participants agreed to do so through a written consent. The stakeholder's identities were referred to in terms of their functions.

CHAPTER 4

Results

This chapter presents the study results of the PADev experiment conducted at EMU, displaying the PADev data in order to further analyse the PADev's effectiveness in measuring the impact of development interventions at EMU and interpret its underlying assumptions. In comparison with other evaluation methods, the basic premises of the PADev methodology were the analysis' starting point. This chapter also presents and analyses both inner and external stakeholders' perspectives on the impact of EMU on the quality of education, scientific excellence and emancipation. Lastly, the findings are presented, considering the usefulness and effectiveness of the PADev theory and method concerning its explanatory powers or shortcomings.

4.1. Events, Changes, Factors, and Actors Influencing the Development of Eduardo Mondlane University

This section presents data gathered through PADev experiment on events, changes, factors and actors influencing de development of Eduardo Mondlane University. The PADev experiment was conducted with four staff categories in six units of EMU, namely the Central Services, the Faculty of Education, the Faculty of Sciences, the Faculty of Engineering, the Centre for Academic Development, and the African Studies Centre. The first category included the boards of directors, comprised of the deans, deputy directors, heads of departments and course directors. The second category group included the staff, amongst them lecturers, researchers, and technical and administrative personnel. The third category included the alumni. A fourth category, representing the central directorates, included EMU's leaders, central managers and central managers' representatives. Participants whose claims were highlighted were identified using these categories.

4.1.1. Historical Events and Their Effects on EMU

The PADev data showed that the development of Eduardo Mondlane University was influenced by the occurrence of a range of international, regional, national, and institutional events across decades. A word cloud generated through word frequency query from NVivo12 software points to four types of historical events, namely institutional, natural, political, and economic events (see Appendix XIII). A summary of the most important recalled events is presented chronologically representing a specific period of the history of Mozambique, specifying whether the event took place internationally, in the region, locally or at the institutional level. Later, the most

important events and its impact on EMU were also presented chronologically, in a more comprehensive way.
In the 1970s, in the revolutionary period there were a number of local and institutional events taking place. Amongst the local recalled events were the Independence of Mozambique; the civil war; presidential meeting; the establishment of *Machambas do Povo* (People's Farm Fields); the establishment of *Centro 8 de Março* (Centre 8th of March). Institutional events included the first wave of curriculum reform (modernisation of curriculum); the naturalisation of the teaching staff; and the institutionalisation of annual meetings.

In the 1980s, during the civil war, the local events that took place include the shift from Marxism-Leninism to Socialism. At institutional level, various events were recalled, such as the emergency of the Faculty of Sciences, the restructuring of the university's management and functioning structure, the establishment of a unit of coordination with donors, the establishment of the Faculty of the Freedom Fighters and Workers of the Vanguard (FACOTRAV), the second wave of curriculum reform (curriculum review), the institutionalisation of mathematic olympiads, the closure of the old Faculty of Education (FACED), the introduction of Basic University Sciences Course Experimental Project (BUSCEP), the expropriation of FACED's installations and facilities, and the loss of CEA's financial autonomy.

In the 1990s, during the democratisation period, regional, national and institutional events were referred to by study participants. The establishment of the Southern African Development Community (SADC) was the only regional event pointed out by participants. Nationwide, a broad range of events include the approval of the new Constitution of the Mozambique Republic (1990) that introduce a multiparty system and democracy in Mozambique; the end of the Civil War; the approval of the Higher Education Law (Law 1/93 from 24th June, 1993); emergency of private higher education institutions; the approval of the National Education Policy (*Resolução* 8/1995); the establishment of the Career and Remuneration System; and the approval of the Housing Alienation Policy. Institutional events that took place on the same period include the institutionalisation of the graduation ceremony; the genesis of the University Strategic Plan; the introduction of EMU's entry exams; the relocation of the Faculty of Sciences; the holding of the 5th Luso-Afro-Brazilian Social Sciences Congress; the design of the EMU's Strategic Development Plan 1999-2008; the expansion of the EMU's campuses; and the introduction of postgraduate courses.

In the 2000s, the democratisation of education period, amongst the recalled international events, were the international financial crises; the global awareness on climate change; and the European Bologna Process. Concerning the regional recalled events, was the 11st Meeting of the Council for the Development of Social Science Research in Africa (CODESRIA), held in Maputo, Mozambique. The local events

include the launch of the government's initiative 'districts as poles of development'; the reform of the public sector in Mozambique; the expansion of public higher education; the celebration of the 50th Anniversary of Higher Education in Mozambique; the discovery of natural resources, and the approval of the Higher Education Financing Strategy. Regarding institutional events taking place at this period, the ones recalled were EMU's financial system and administrative reform; the establishment of the new Faculty of Education; the third (competence-based curriculum), fourth (regional integration) and fifth (Bologna protocol) waves of curriculum reform; the emergency of post-work Regime; the establishment of higher schools at EMU; the introduction of quota system and special clearance for university admission; the emergency of Eduardo Mondlane University Foundation; the establishment of the Centre for Studies and Psychological Support – CEAP; the introduction of the administrator role; the implementation of staff development regulations (Teaching and Research Staff Career Regulations, Teacher and Researchers' Performance Assessment System); the approval of the Teacher Training Strategy; the approval of the Distance Learning Regulations; the nomination of new rectors; the construction of new university library; the establishment of the Law Studies Centre; the introduction of the digital learning platform (Chissimba); the restructuring of academic and research units; the introduction of new courses; the institutionalisation of the initiative "one student, one computer"; computerisation of the academic registration system; the institutionalisation of the 'University's Open Day'; the approval of the plan for continuing education and professional development (Teacher Training Plan); staff's mass retirement; the establishment of the Quality Office at EMU; and the tribute to Ruth First and Aquino de Bragança.

The events that stand out due to the recurring way in which they were mentioned, amongst the local events, specifically political related events recalled by study participants, include the Civil War; the first general elections; the establishment of the *Centro 8 de Março* (first teacher training academy); the approval of the higher education law (Law 1/93), the emergency of new HEIs, both public and private, However, there was a singular recalled event that represents the breaking point and the foundation for the establishment of Eduardo Mondlane University as a national university. The Independence of Mozambique represented the rupture with the colonial regime and the milestone for the transition of the Lourenço Marques University, a colonial led university, to Eduardo Mondlane University, led by Mozambican nationals. With the Independence of Mozambique, a sequence of events occurred countrywide. Concerning the most important natural events, it included the discovery of mineral resources in the Northern provinces of Mozambique, and, at the institutional level, the most important was EMU strategic planning.

At the regional level, a major economic event recalled by study participants was the establishment, in 1992, of the Southern African Development Community (SADC),

whereas, at the international level, a major recalled event was of economic nature and it was related to the world's economic crisis from 2008.

In the following lines the five recalled major events and their influence on change and development of EMU are described.

The Independence of Mozambique (1975)

Mozambique was a Portuguese colony from 1498 to 1975, when the country conquered its Independence from the Portuguese colonial regime. The Independence of Mozambique from the Portuguese rulers was proclaimed in 25 June 1975 by Samora Moisés Machel, the former President of Mozambique People's Republic, in the 'Machava' Stadium, in the Maputo capital city. From the participants' perspective, the occurrence of this event affected the functioning of EMU. The Independence of Mozambique was perceived by the Central Services' representative, for instance, as an important occurrence that resulted in the nationalisation of the university and its upgradation. The institution changed its previous designation 'University of Lourenço Marques' to adopt the name 'Eduardo Mondlane University' honouring the first president of FRELIMO[46]. This view is stated in the following speech by a university leader:

'*Eduardo Mondlane University is one example of the conquest of the national Independence. Eduardo Mondlane University in the colonial period served non-local elite nevertheless the existence of a local elite (sons and daughters of nurses and teachers). The Independence gave room for Mozambican people to access higher education at EMU, the first higher education institution*' (University Leader 2).

The claim suggests that there was a shift from an "elitist education" to a "popular education", as the only higher education institution became affordable for the Mozambican population entitled and interested in pursuing higher education locally.

Right after the proclamation of the Independence of Mozambique, new policies were put in force by the new government, and those included the compulsory departure of Portuguese citizens and the nationalisation policy.

The departure of Portuguese citizens affected the university, since markedly reduced the teaching staff, in particular, the Portuguese lecturers as well as Portuguese students attending the university. The university operation was compromised, and the consequence of this occurrence was the temporary closure of some courses, as the

[46] FRELIMO was established on 25 June, 1962, in Dar es Salaam, Tanzania, as the single organisation resulting from the union of three existingmovements, namely, MANU (Mozambique African National Union), UNAMI (União Nacional para Moçambique Independente), and UDENAMO (União Democrática Nacional de Moçambique).

country lacked local trained teaching staff to fulfill the need for qualified personnel required to teach at the university. The country lacked professionals and technical personnel in the production sector, as well as in the economic and social sectors and services (UNESCO, 1982).

The nationalisation policy affected the education sector, since the aim was to launch the foundation to create a single state-controlled education system for workers and peasants through the nationalisation of the private schools to put education at the service of the people, setting the foundations that would allow a real democratisation of education and its availability to all people (UEM, 1976). The education provided by the Portuguese regime was seen by the locals as an instrument of domination and alienation, entirely at the service of the colonial bourgeoisie. The education system offered by high schools and universities was intended to train the cadres of the bourgeoisie, the managers and operators of the system of exploitation and oppression of the Mozambican people. The tuition fee system, the cost of textbooks and school equipment ensured that high schools were reserved for the most privileged groups. It was an education reserved for the children of the colonial bourgeoisie and closed to the overwhelming majority of the Mozambican population, as the percentage of illiteracy in Mozambique, a legacy of colonialism, was over 90 percent [47].

This process had an impact that resulted in the nationalisation of the only existing university that was first established as a colonial university. Lourenço Marques University was an extension of the Portuguese higher education in the colony (overseas province) for Portuguese citizens which was turned into a national public university for Mozambican nationals.

The exodus of Portuguese lecturers and the scarcity of qualified local teaching staff that led the university to face a critical situation of shortage of teachers (Langa, 2009) led the Mozambican government to define a strategy to overcome the situation by recruiting qualified people from European countries and America to teach at the university. The solution came from abroad, as qualified foreigners who were willing to cooperate and work at the university replaced the Portuguese teachers. Once again, the university remained completely dependent upon foreign teachers coming from the Netherlands, Cuba, USSR and others, to ensure the delivery of its courses. Foreign teaching staff was not only involved in teaching activities at undergraduate and postgraduate levels, but also in research and extension activities, and some of them assumed leading positions. The recruitment of scientists, academically qualified to strengthen and manage the scientific areas aimed to improve the quality of teaching and research (UEM, 1998).

[47] As Nacionalizacoes. http:--www.marxists.org

In the same period, in 1975, Mozambican students (secondary school finalists and university graduates) were sent abroad by the government to countries such as East Germany, Soviet Union, and Sweden to get specialised training. This strategy aimed to integrate nationals into the teaching body at EMU by gradually replacing the foreign teachers. Hence the number of Mozambicans with higher education increased and the proportion of foreign teaching staff at EMU reduced from 98% in 1975 to 14% in 2000/01 (Mario et al, 2003).

Workshop participants from the Faculty of Engineering acknowledged that in 2003/11 "*the Departments of Mechanical Engineering, Chemical engineering and Civil Engineering received many Mozambican trained teachers*" (Faculty Manager 3).

FACED's staff acknowledged being granted with funds from a foreign funded programme to upgrade their academic qualifications abroad. The lack of resources and the university incapacity to offer postgraduate courses locally, compelled them to complete post-graduation in countries like East Germany, Russia, and Soviet Union. Consequently, '*there was no longer complete dependency on foreign teachers to ensure the teaching process (coaching)*' (Faculty Staff Member 5).

Foreign and local teachers were working side by side to safeguard the continuity of the teaching assignment. Co-teaching approach became a trend at the university, and since 1975 there was an exponential evolution in the number of nationals amongst the teaching staff compared with foreign teaching staff. In 1975, the number of Mozambicans teaching (5) was not meaningful if compared with the number of foreign lecturers (154). However, through the years this figure changed dramatically, as the number of local lecturers raised from 5 to 308 and the number of foreigners decreased slightly from 154 to 149 in 1990. In this same year, more Mozambicans were replacing foreign teaching staff therefore changing the pattern in the composition of the teaching staff (UEM, 1991). The same growing trend was verified two decades later, from 1990 to 2015, with the number of Mozambican lecturers growing from 308 to 1705 and the number of foreigners diminishing significantly from 149 to 79 (see Appendix VI). This growth not only occurred in quantitative terms, but also qualitatively, with a considerable number of national teachers holding master's and PhD degrees.

Partially, the reasons for the shift in the composition of the teaching staff is explained by the fact that political changes in the Eastern European countries resulted in the reduction of the support provided to EMU. The high turnover associated with foreign teachers, whose average stay was around two years, hindered the stability of the teaching staff, since the recruitment was mostly based on individual applications not covered by interuniversity partnership agreements (UEM, 1991).

In recent years, the issue regarding the composition of the teaching staff is no longer related to the nationality of the lecturers, but to the generation. That is, the most experienced lecturers, the senior lectures, are leaving the university due to retirement, working commissions outside the university, other job opportunities, and others, while a new generation of young scholars, the junior lecturers/researchers, are emerging and replacing the seniors.

The establishment of the Centro 8 de Março (1977)

Between 1976 and 1989, Mozambique's social and economic situation demanded transformative actions from the government and drastic measures were taken to overcome the critical moment the country was experiencing with the massive abandonment of the country of Portuguese technical staff, which were serving the colonial system in various spheres, such as the economy, education, public administration and the private sector.

In the year of 1977, the former president of the People's Republic of Mozambique, the Marshal Samora Moisés Machel, convened secondary school students (10th and 11th grades), teachers, and other education professionals to attend a presidential meeting to discuss and find solutions for the shortage of technical and scientific staff at the most varied levels and sectors. The presidential meeting took place on the 8 March 1977, at the Maxaquene Sport Club, in Maputo capital city.

According to Nguenha (2023), the measures announced by the President of the Republic on 8 March 1977 consisted essentially of interrupting education in grades 10th and 11th throughout the country, so as to assign the students of these grades professional responsibilities. Therefore, around 600 young students affected by this measure were placed in various sectors, including defence, education, agriculture and other sectors in the economic, social and cultural spheres. The implementation of these decisions lasted from 1977 until the end of the 1980s and beginning of the 1990s, when education in grades 10th and 11th was resumed.

The objective of education became, according to Ngoenha (2022) the formation of a new person and a new society, both in terms of its content and its principles. This new concept of education consisted of the intrinsic connection between theory and practice

The *Centro 8 de Março* was the "historic" place where the measures announced by the then President of the Republic, Samora Moisés Machel, were implemented on 8 March 1977. On that date, a meeting was held in Maputo with around 600 young students from various cities in the country, where there were already primary and secondary schools, including students from FRELIMO schools. The measures advocated, on the one hand,

the interruption of 10th and 11th grades education throughout the country, in order to respond to the challenges arising from the massive exodus from the country of Portuguese technical staff, technical staff serving the colonial system in the economic, educational, public administration and private sectors. The students covered by this measure were distributed and placed in various sectors of defence, education, agriculture and others. On the other hand, the training of technically and scientifically prepared professionals capable of making the intrinsic connection between theory and practice became fundamental and crucial at the time of independence and the construction of the new Mozambican State. The mission of the '8 de Março' generation included the continuation of the construction of the nation and the Mozambican State through tasks assigned to the armed forces, education, health, economy, politics, construction of infrastructures, defense of the sovereignty and unity of the state, maintenance of the national unity, and remains firm in the construction of Mozambican citizenship. Thus, a new concept of education and school was adopted, where the training of the new man and the new society, both in its content and in its principles, became the objective of education. The process of implementing these decisions began in 1977 and continued until the end of the 1980s and beginning of the 1990s, when the 10th and 11th grades were reintroduced (Nguenha, 2023).

The youth gathering at *Centro 8 de Março* was, from the perspective of the Central Services' representative and staff from the Faculty of Sciences, a meaningful event, since youth from all over the country were challenged to take responsibility of the country's economic and social reconstruction after the exodus of several Portuguese nationals following the Independence of Mozambique. Thus, students that should continue their studies in 10th and 11th grades were assigned tasks in various sectors to fill different positions and perform different activities. As a participant said, '*the establishment of the Centro 8 de Março meant a call to homeland*' (CEA Staff 1), and there are lecturers from EMU that belong to the generation "*8 de Março*".

Again, the composition of the teaching staff was also influenced by this event, as stated by a university leader, as per the following quote: '*Without the Centro 8 de Março, we would rely on foreign teaching staff. The youngest attended the propaedeutics and continued their higher education. Some went to Soviet Union, Cuba, and so on. The eldest attended the propaedeutics and were sent to teach in local secondary schools*' (University Leader 2).

Moreover, according to participants from the Faculty of Education, there was a milestone in the reform of the Mozambican teacher training system. The understanding was that the presidential meeting catalysed what happened afterwards in the education sector in Mozambique, including the establishment of the Faculty of Education (FACED) of Eduardo Mondlane University in 1980, and the *Centro 8 de Março* in Maputo, a student accommodation unit attached to the Faculty of Education of EMU.

The Centre served as a hostel for students enrolled in the teacher training courses offered at the Faculty of Education, since the faculty's mission was to train the broad spectrum of educational professionals, including secondary and pre-university teachers.

This idea is partially shared by Ngoenha (2022), who claimed that 'this remarkable event afterwards demanded an active role from EMU as it was assigned the task of training and releasing teachers to feed all levels of general education, particularly general secondary education'. There was a privileged relationship between the *Centro 8 de Março* and Eduardo Mondlane University (EMU), since the staff trained there were included in the teacher training courses and preparatory courses offered in almost all EMU faculties, in the initial phase. Later, teacher training demanded the establishment of the Faculty of Education and a new independent higher education institution, the *Instituto Superior Pedagógico (Higher Pedagogic Institute), which* took over the teacher training assignment (Nguenha, 2023: 93).

The *Centro 8 de Março* was a milestone for the development of the education provision, since the centre trained education professionals who pursued further studies abroad and became EMU's employees.

The Civil War (1977-1992)

The Civil War was repeatedly cited among the study participants. Also called the *Destabilisation War*, it was against the government of Mozambique, then ruled by the Mozambique Liberation Front (FRELIMO), and the Mozambican National Resistance (RENAMO). The armed conflict, also known as the Sixteen Years' War, started in 1977 and ended in 1992 with a peace agreement signed in Rome on 4 October 1992 by representatives of both parties.[48]

The Civil War affected the university's functioning and processes in many ways. The former and current university leaders interviewed described the impact of the civil conflict on the university's coverage and education delivery in the country in the following terms: '*The war had a negative impact on state institutions, including EMU's budget due to the economic crisis it caused*'. Therefore, it affected people's psychological state by causing '*trauma, uneasiness, fear, and [it affected our] wage situation*' (Former University Leader 1). Moreover, '*the expansion of the university was affected*' likewise '*the quality of basic education (…), as teachers migrated to the cities, particularly Maputo city. The quality of students the university receives today results from this disappearance of teachers*' (Former University Leader 1). Another study

[48] Joaquin Alberto Chissano, the president of Mozambique at that time, and Afonso Macacho Marceta Dlakama, the leader and representative of the RENAMO party, signed the general peace agreement. The team of mediators included Andrea Riccardi and Matteo Zuppi both Italian and members of the Community of Sant'Egidio (a Christian community recognised by the Catholic Church as a public lay association), Jaime Gonçalves, the local Bishop, and Mario Raffaelli, representative of the Italian Government. (Política Internacional, *1*(6) Primavera, 1993 – Acordo Geral de Paz de Moçambique).

participant claimed that: '*the expansion of the university was affected. Probably today we* [the university] *would be all over the country*' (University Leader 2).

From the leadership perspective it can be said that the teaching and learning processes at the university became compromised as well as the fulfilment of academic chores as it impeded the conducting of fieldwork and study visits in the risk areas. As further highlighted by a study participant, the war *'prevented the conducting of specific academic activities, particularly at the Faculty of Sciences, since practical classes outside the university premises were prevented'* (Former University Leader 2). The dramatic impact was reportedly the loss of lives, since *'there were students from EMU who have died while doing fieldwork'* (University Leader 2).

Since the Civil War impeded the expansion of the university across provinces, the higher education provision was concentrated in the capital city Maputo. This situation generated pressure on housing facilities, driving EMU to expand its housing stock by acquiring residential buildings around the city to accommodate students coming from all over the country.

From the statements above, it can be said that the quality of education in general became compromised with the major concentration of skilled teachers in the capital city. Accordingly, the quality of students that entered the university reflects this uneven concentration of experienced teachers all over the country. Moreover, the scarcity of resources to improve learning conditions also brought a negative impact.

The economic and social implications of the war also concerned the managers at the faculty level, and the awareness towards the consequences of the war were expressed by a workshop participant from the Faculty of Sciences who stated that '*the war destroyed infrastructure, impeded the free movement of people and goods*' (Faculty Manager 5). There is a common understanding that the war resulted in human and material losses in the conflict areas, mostly in locations distant from the capital city and the provincial capitals. In the conflict zones, the war also affected peoples' mobility, destroyed school infrastructure and other facilities, and prevented the development of the local economy.

Poverty and safety became the major issues facing Mozambican society and EMU in particular, as stated by a university leader:

'*The Civil War brought on extreme poverty, not only physical, but also material and moral poverty. The image of this poverty can be seen in the wall around the campus that was built to protect the premises of the university in that period that lacked everything. Instead of investing to improve the learning conditions, the resources were directed towards building walls*' (University Leader 1).

With the end of the conflict after the signature of the Peace Agreement, a new cycle of the university life began. There were, from the Faculty of Education staff's perspective, '*implications for the composition of student body by national citizens'* and concerning the *'performance of EMU with the reactivation of some disabled centres, such as the Inhaca's Marine and Coastal Biology Station'* (Faculty Staff 1). The Inhaca Marine Biological Station functioned well during the 1980s and was refurbished and provided with a research vessel 'Dugongo' through SIDA support. The end of the Civil War led, according to a central services manager, to the expansion of the university, and countrywide '*the [educational infrastructure] has been rebuilt*' (Central Services Manager 2). After the conflict, the education infrastructure and other social and economic facilities were reset or reopened, and war-displaced persons returned to their areas of origin, allowing them to rebuild their lives and continue their studies.

Moreover, another workshop participant from the Faculty of Education stated that '*the end of the civil war in 1992 allowed student mobility countrywide, once the war prevented free movement of people and goods throughout the country*' (Faculty Staff 3). The phenomenon of student mobility not only determined the configuration of the student body at EMU, as it became more diverse. It also enhanced EMU's infrastructure and service provision to absorb and serve students from different regions and social, cultural and economic background. In the meantime, EMU's research centres located outside Maputo city were reactivated after a long period of stagnation due to the conflict. That was the case of the Inhaca Coastal and Marine Biology Station.

Southern African Development Community - SADC (1992)

The constitution of the Southern African Development Community (SADC) established in 1992 in Windhoek, Namibia, was recalled as having had a major impact on the university. It is a regional integration movement engaging Southern African countries that share mutual economic and political interests. The SADC aimed to improve technical and administrative skills within the Southern African region and established a series of protocols aimed at greater regional integration in the field of trade, energy, education, and tourism. SADC was able to begin after the end of apartheid in South Africa.

It is important to acknowledge that Mozambique's integration to SADC occurred at a time when the country was still experiencing the effects of the civil war that lasted 16 years. A war that devastated its economy and destroyed the social fabric.

Massangaie (2018) pointed out that after long years of civil war that followed the proclamation of Mozambique's Independence in 1975, the country stood out for its strategic role in the fight against the minority regimes of South Africa and Southern Rhodesia. Therefore, Mozambique was a target of a continuous process of political,

military and economic destabilisation. Mozambique was a member of the informal organisation of the Front Line States since its Independence, being a founding member of Southern African Development Coordinated Conference (SADCC) in 1980 and, later, of SADC, in 1992.

Moreover, the reforms Mozambique introduced in the late 1980s, aimed at accommodating the market economy and the system of multiparty democracy, occurred simultaneously with the country's active participation in the regional integration process within SADC. Thus, Mozambique's regional insertion began to occur simultaneously with the implementation of structural adjustment measures, which began with the country's accession to international financial institutions in 1984 (World Bank and Monetary International Fund), and the implementation of the structural adjustment programme called the Economic Rehabilitation Programme (PRE), in 1987, which evolved into the Economic and Social Rehabilitation Programmes (PRES) in 1990 (Massangaie, 2018: 43).

From the participants' perspective, this event influenced the curriculum reform process at EMU. Similar to what happened with the establishment of international and/or regional trade blocs between countries and organisations, the HEIs operating in a globalised and highly dynamic environment also developed internationalisation strategies. Accordingly, EMU's Strategic Plan (2010-2014) foresaw the designing, implementation, and monitoring of academic reform in line with the regional integration aiming at harmonisation of its educational system along with that of the SADC country members. Thus, it was expected that EMU would conceive curricula models that enable, on the one hand, student mobility at the national, regional, and international level and, on the other hand, course accreditation according to SADC's existing practices (UEM, 2008, pp. 14, 15).

As stated by a Faculty of Education staff during the workshop, '*the regional integration brought external coherence to undergraduate and postgraduate courses*' (Faculty Staff 1). In the meantime, the demand for EMU's courses from neighbouring countries had become a reality as shown by some reported institutional figures. For instance, in 2008, 18 foreign students were enrolled in different courses offered at EMU, which rose to 26 foreign students in 2010 (UEM, 2008; UEM, 2010). From the statement above, one can infer that the concern with the alignment of the courses offered by EMU with the region, and the possibility of academic mobility and subsequent credit transfer, guided the process of curriculum reform during this period.

The Higher Education Law (1993)

The emergency of the higher education law was referred to by the Central Services representatives and participants from the Faculty of Education as an event that shaped the Mozambican higher education scenario and restructured the higher education system in the 1990s.

The Government of Mozambique, through the *Assembleia da República* (1993) approved the first higher education law (Law 1/93 from 24th June), a law regulating the activity of higher education in the Republic of Mozambique.

The Law 1/93 established the legal framework that created new space for the emergence of private operators and the establishment of higher education institutions in Mozambique as well as the basis for the design of higher education expansion policy (Rosário, 2012). The introduction of the Higher Education Act (Law 1/93) enabled the emergency of the first private higher education institutions, namely, the Mozambique Catholic University - UCM (1995), the Polytechnic University - *A-Politécnica* (1995), and the Higher Institute of Science and Technology of Mozambique - ISCTEM (1996). However, from the Faculty of Education's perspective, the emerging higher education institutions, '*lacked qualified teaching staff, thus relying on EMU's lecturers to function. This situation affected negatively the functioning of the faculties at EMU due to the unpredictable teachers' mobility and teacher's workload. It also affected the quality of teaching since teachers were constantly migrating from one institution to another offering their services to increment their salaries*' (Faculty Manager 1).

At that time, despite being, as stated by a former university manager, "*(…) an institution relatively stable*" (Former University Manager 1) the emergency of new higher education institutions constituted a threat to the stability of the teaching staff, who, while teaching at other institutions, were no longer at EMU on an exclusive basis.

The Law 1/93 enabled the diversification and differentiation in the Higher Education System by setting the rules for the establishment of higher education institutions, regardless of its nature. It was in the wake of this legal framework that EMU established, years later, its higher schools in the areas of communication and arts, sports, marine and coastal sciences, rural development, hospitality and tourism, and business and entrepreneurship.

New Higher Education Institutions (after 1993)

The revision of the Mozambican Constitution of 1975 that originated the Constitution of 1990, as well as the approval of the first Higher Education Law (Act 1/93 of 24 June) led to the setting of a new higher education landscape. Accordingly, new higher

education institutions emerged, amongst them universities, higher institutes, higher schools, and academies, both public and private.

Concerning the emergence of private HEIs, the role of the state in providing basic services to its citizens was questioned by a university leader who claimed that '*private education was the response of the government to cope with the great pressure upon the education offer and to overcome its lack of capacity to provide adequate higher education and integrate more people into the system*' (University Leader 2).

There was an understanding, amongst faculty staff and managers from sciences and education that took part in the workshop, that the emergence of private higher education institutions triggered competition among HEIs, since some HEIs lacked qualified teachers and relied on teachers from EMU '*to ensure the provision of their courses*' (Faculty Staff 3). This '*situation negatively affected the functioning of the faculties at EMU due to the unpredictability of teachers' mobility and teachers' workload. It also affected the quality of teaching, since teachers were constantly migrating from one institution to another offering their services to increment their salaries*' (Faculty Manager 1).

The education system was also, according to the leadership of the university, affected in the sense that '*those teachers who ensured minimum quality at the private institutions had limited time, and that affected the diversification and quality of the teaching at EMU*' (University Leader 2). Moreover, '*private institutions introduced post-work regimes, and public institutions followed this trend with both negative and positive impacts. From the teachers' perspective, it was good as it incremented their salaries. The post-work regime also enabled mass education and posed challenges concerning the quality of teaching and infrastructure maintenance*' (University Leader 2).

However, the statements presented above show that private providers influenced public providers to adopt a new attitude to cope with the growing demand for higher education, avoiding losing their societal position. The functioning structure as well as the management system of public higher education institutions were affected, since the teaching staff had to be mobilised and their working schedule adjusted to the new situation. The post-work or after-work regime also demanded new management procedures and regulations, since the state budget did not fund evening shifts.

The 1ST General Election (1994)

The Constitution of Mozambique Republic approved in 1990 introduced the democratic rule of law, based on the separation and interdependence of powers and pluralism, therefore, establishing the structural parameters of modernisation and, contributing to the establishment of a democratic environment that led the country to hold its first multiparty elections (*Assembleia da República*, 1990). The 1990 Constitution

introduced the multiparty system in the country's political arena, extinguishing the one-party regime.

The first multiparty election took place in Mozambique between 27th and 29th October 1994, following the end of the civil war and signature of the Peace Agreement in 1992. The President of the Republic and the members of the National Assembly were elected on that occasion, thus consolidating the principle of the democratic rule of law established in the 1990 Constitution.

The 1990 Constitution favoured the emergence of democracy which allowed the expression of different opinions, and change of ideologies. As stated by a Faculty of Education former manager, '*the introduction of the multiparty system in Mozambique influenced people's mind-set and their decisions regarding specific matters. The multiparty system brought a new conception of the world, a more open and philosophical conception, a more comprehensive perception of the problems facing society, and problems in education. As a result, a receptive environment within EMU was created enabling the reintroduction of courses such as Law, Sociology, and Anthropology, extinguished in the past for being associated to the colonialism. Thus, the field of social sciences was reintroduced given its relevant role in the new context of the Mozambican society*' (Faculty Former Manager 1).

The 2004 Constitution reaffirms, develops and deepens the fundamental principles of the Mozambican State, enshrines the sovereign character of the democratic rule of law, based on pluralism of expression, party organisation and the respect and guarantee of fundamental rights and freedom of citizens (*Assembleia da República*, 2024). There is the understanding that *'the type of democracy the country experiences influence peoples' mentality towards the implementation of some regulations within the university". For instance, there is no precision in the compliance of the time of studies, what cause students to stay longer at the university, increasing the costs of education and preventing other to fill in new vacancies' (I-Vice Rector2).*

The appropriateness of the circumstances and environment to welcoming subversive connoted courses and individual interpretation and freedom to relax the university regulations were both positive and negative effects of the democracy brought by the 1990 Constitution.

The EMU's Strategic Development Plan (1998)

The design of the Strategic Plan for the Development of EMU (1998-2008) occurred in an annual consultative meeting held in 1998. The Plan also defines as strategic objectives to be achieved the following: (i) expansion of EMU taking into account the

equitable access and gender equity by students coming from all regions of the country; (ii) improving the quality of education and increment of the number of graduates; (iii) development and institutionalisation of the basic and applied research; (iv) improved binding to society; (v) internationalisation of the university based in the concept of solidarity from international scientific community; and (vi) social policy development as a way to create a suitable environment to develop a proper academic community. Moreover, the plan proposed, amongst others, (i) the expansion of the infrastructure and modernisation of equipment in order to improve the quality of teaching and research; and (ii) the retention and consolidation of the Mozambican teaching staff, valuing and recognising the role of the teacher as educator, as the promoter of the critical spirit, scientific curiosity, as well as the stabilisation of the technical and administrative personnel (UEM, 1998).

A workshop participant from the Faculty of Engineering stated that '*the identification of the weaknesses and the opportunities the university had, contributed for the design and implementation of the Capacity Building Project, a World Bank funded project aiming to enhance EMU infrastructure, and promote massive teacher training at master and PhD levels*' (Faculty Manager).

Concerning the expansion and modernisation of infrastructure the growing number of students, the emergency of new scientific fields and courses, the establishment of new faculties, the introduction of postgraduate programmes, and the increment of the scientific activities required the development of appropriate infrastructure to respond, in quantity and quality, to the EMU's strategic plan. The expansion implied the enlargement of the existing installations and the setting of new spaces on other sites of Maputo city or in other provinces. In this regard, the Faculty of Sciences, initially attached to the Faculty of Engineering, was transferred to the university main campus, enabling greater availability of space for the benefit of the Faculty of Engineering (UEM, 1998). In addition, part of the infrastructure where the Faculty of Engineering is currently functioning was modernised and new installations were built.

The institutionalisation of Strategic Planning at EMU compelled the university to adopt planning as a regular practice in all its organic units, in order to ensure a monitoring and evaluation system that allow measuring each step of the journey towards achieving the institution's vision and mission. Therefore, the units according to its own profile, began to produce specific plans, the format of which could be a strategic plan and/or a multi-year operational plan.

The World Economic Crisis of 2008

The participant recalled the World Economic Crisis (some called it the 'European Economic Crisis') which arose from the international financial crises in 2007 and 2008 (Machine, 2010). This event was perceived by a central service manager as one that had a huge impact on the university's functioning. The World Economic Crisis had '*implications for the reduction of the university budget [provided by the state], since it was cut off. (...)*', challenging the university to continue *'running its activities and processes using less money*'. Accordingly, there were activities that were removed from budget lines and other cuts were made to overcome the scarcity of financial resources. Moreover, '*the length of practical activities foreseen in the curricula was shortened in order to be accomplished in less time. Once the infrastructure had grown, the university had to rationalise the use of the resources made available*' (Central Service Manager 3).

In addition, another workshop participant, from African Studies Centre, stated that '*the European crisis constrained the participation of researchers in scientific events held in Europe and elsewhere*' (Centre Staff 2). The organisation of scientific events worldwide was compromised by the economic crisis, thus limiting the participation of local researchers as well as the dissemination of their research results. This situation encouraged some units, such as the African Studies Centre, to establish public and private partnerships in order to mobilise funds to organise its own scientific events locally.

The discovery of natural resources (2012)

In the economic sphere, and in the context of the implementation of capital-intensive projects that mobilised a large influx of foreign capital, 'megaprojects' arrived in Mozambique.

It was on this path that in 1992, two giant multinational companies, specifically ANADARKO Petroleum Corporation - a Texas-based oil and gas exploitation company - and ENI - an Italian multinational energy company headquartered in Rome - conducted an exploratory activity that resulted in the discovery of deposits of natural gas in the Rovuma Basin, in the northern coast of Mozambique. Geographical survey showed that the offshore Rovuma Basin, located near the border between Mozambique and Tanzania potentially has significant hydrocarbon reserves.

According to a study participant from the Faculty of Education, the new discovery of natural resources '*brought consultancy opportunities and high professional status for some people working at EMU, the (...) senior staff that were in charge of the studies and run the [exploitation] process*' (Faculty Staff 1). This event also challenged EMU,

as it demanded the introduction of a new study filed. The lack of local specialised personnel was an indicator that EMU was not scientifically and technically prepared yet to cope with the new demand. The review of certain courses in the field of science and engineering, and the training of Mozambican technical staff was necessary. In this regard, the discovery of natural resources was crucial for the introduction of the Master's course in Petroleum Engineering being offered at the Faculty of Engineering of EMU. Later, EMU also introduced a Master's Course in Hydrocarbon Processing Engineering.

The discovery of minerals (mineral coal) in Mozambique enabled the establishment of cooperation agreements between the Faculty of Engineering and foreign entities such as VALE, a Brazilian multinational mining company. Apart from being a diversified metal and mining corporation, VALE S.A. is one of the largest logistics operators in Brazil (VALE, 2015). Concerning partnership agreements, a workshop participant stated that the cooperation between Faculty of Engineering and VALE involved "*the offer of a Master's Course on Safety in the Workplace*" (Faculty Manager 1) since 2012, with a second edition of the course that took place in 2014.

Following this event, the cooperation between the Faculty of Engineering and ANADARKO was boosted between 2013 and 2014. The cooperation between the faculty and the American oil and gas company involves the offer of Master's Course in Petroleum Engineering.

Overall, by pointing out the most important events referred above, either non-institutional or institutional, with a clear temporal ordering among the events, one can establish some causal mechanisms (intermediary events) that links initial breakpoint event with the final outcome that represents EMU development pattern. The early contingent event that initiated the sequence was the Independence of Mozambique from the colonial regime, a necessary condition that produced a trajectory of change that culminated in the stage of its development back in 2015. The Independence of Mozambique produced subsequent events that contributed for EMU's growth in various dimensions: human, infrastructural, scientific and academic, structural and organisational dimensions. Specifically, the University grew in terms of human resources, particularly teaching and research staff (in quantity and quality); academic units and academic programmes; physical infrastructure (campuses across the country), to mention some.

The reference to those events is somehow linked to university transformation as they produced a meaningful impact. Hence, any account about the development of EMU cannot be detached from the occurrence of some of these local and contextual events.

In sum, it can be said that Eduardo Mondlane University was established in a sociopolitical, economic, and cultural context that determined its role in the Mozambican society, whose needs shaped its path of development. The reconstruction of the most important historical events from the participants' perspective, and their effects on the university, enabled the characterisation of the institution's development context, as the data showed how the occurrence of particular historical events produced changes at EMU. Nevertheless, changes were also influenced by external and internal factors driven by actors who played specific roles.

4.1.2. Changes and Development Interventions at EMU

This section presents the major changes that occurred in different sectors of EMU during the period under analysis. Furthermore, it describes the nature of the factors and the actors influencing changes, including stakeholders' assessment of the development interventions.

From the data, the process of change and development of the university can be systematised in seven periods, specifically the 1970s (the revolutionary period), the 1980s (the war period), the 1990s (the democratisation period), from 2000 to 2007 (the massification period), from 2007 to 2011 (the Bologna period), from 2011 to 2016 (the restoration period), and from 2016 onwards. Given the fact that the periods under analysis ranged from 1976 to 2016, later developments were not subjected to any in-depth analysis.

4.1.2.1. Change and Transformation at EMU

Overall, the major changes recalled by study participants were summarised in a mind map generated from NVivo 12 and placed in five domains, namely pedagogy, administration, management, human resources, and infrastructure and property (see Appendix XVIII).

The description of the changes and how these affected the organisation and functioning of the institution are presented chronologically.

4.1.2.1.1. The 1970s: EMU during the Revolutionary Period

In the 1970s, Mozambique was hosting a revolutionary movement that led to the Independence of the country. These circumstances affected the entire education system, and EMU in particular was challenged to play a role in contributing to building the newly emerging Mozambican society.

Two recalled changes took place on the referred period, in the pedagogic and human resources sectors. The major change that took place in the pedagogic domain was the first wave of curriculum reform (1970-1976) that entailed the modernisation of the existing curriculum to become more relevant. Changes in the human resources domain occurred in the composition of the teaching staff that was mainly foreign.

Participants from two units (Faculty of Engineering and Faculty of Education) recalled the first wave of curriculum reform between 1970 and 1976, as it shaped the structure and length of the existing courses, particularly at the undergraduate level.

Curriculum review was one of the key actions of the academic reform at EMU. Its main objectives were to adjust and modernise the curricula vis-à-vis the development of knowledge at the global level and to respond to the country's requirements at that time. This review usually applied to the graduate's profile, the training objectives, the study plans, as well as teaching methodologies. It also included connecting teaching, research, and extension in order to conceptualise more open and flexible curricula, taking into account the course content, its length, and the curriculum model (UEM, 1998).

For instance, beginning in1962, the Faculty of Engineering offered four courses lasting six-years each, namely civil engineering, electrical engineering, mechanical engineering, and chemical engineering. As described by a workshop participant from the Faculty of Engineering, '*the first three years of the courses focused on general raw materials, while the last three years focused on engineering disciplines*'. Eight years later, in 1970, a curriculum reform was carried out culminating in '*the reduction of the length of the courses from six to five years, with the first two years focusing on general basic content*'. In the same period, '*two new courses were introduced, namely mining (lasting five years) and metallurgical engineering (lasting 8 years)*' (Faculty Manager 1). The most prominent aspect of the curriculum reform from the participants' perspective involved the course structure.

In the human resources domain, the remarkable change was in the composition of the teaching staff, which occurred shortly after the Independence of the country in 1975. The resulting diversity in terms of origin in the composition of EMU's teaching staff increased the teaching body in quantity and quality.

After the Independence of Mozambique in 1975, almost all Portuguese teachers working at EMU returned to the metropolis in Portugal. The exodus of Portuguese teachers placed the university in a critical situation, confronting a severe shortage of teachers (Langa, 2009). The country, as a whole, lacked professionals and technical personnel in the production sector, as well as in the economic, social, and service sectors. The country also lacked professionals and technical staff (UNESCO, 1982) along with qualified personnel to teach at the university.

To cope with this situation, the Mozambican government's strategy included the recruitment of qualified people from European countries (with a prominent role for Sweden, the Netherlands, and East Germany), the Americas (with a prominent role for Cuba), the USSR, and others. Foreign teaching staff was not only involved in teaching activities at undergraduate and postgraduate levels but also in research and extension activities (UEM, 1998).

A parallel strategy was to identify prominent Mozambican students (secondary school finalists and university graduates) and send them abroad to countries like East Germany, the Soviet Union, and Sweden to get specialised training. This strategy aimed to integrate nationals into the teaching body at EMU after their graduation abroad, and gradually replace the foreign teachers. The expectation was that foreign and local teachers would initially work side by side (mentoring, co-teaching) to safeguard the continuity of the teaching.

The review of the courses structure, the training of locals and the hiring of foreign lecturers to integrate the teaching staff indicated the university concern towards the relevance and quality of the courses offered, as well as the quality of the teaching staff in delivering qualified man power.

4.1.2.1.2. The 1980s: EMU during the Civil War

In the 1980s, Mozambique was facing a civil war that started in the late 1970s. This political conflict affected all sectors of the Mozambican economy and society, with a severe impact on the education sector.

Meanwhile, there were changes in the pedagogic and administrative domains. In the pedagogic domain, a second wave of curriculum reform took place. In the administrative domain there were changes in the organisational and functioning structure of the university.

The recalled curriculum reform carried out between 1983 and 1984 came as a result of the Second General Meeting of the university, held in November 1982. The rationale behind the reform was the need to readjust and adapt the curricula to produce higher quantity and better quality in the workforce to fulfil the needs of the country in terms of its economic and social development and to respond to labour market demand (UEM, 1991).

During the mid-eighties, the university was engaged in restructuring the curricula, and consequently the existing courses were reshaped. In the process of curriculum reform, study plans underwent a profound alteration, and that included the reduction of the length of the *licenciatura* degree, lasting five years in almost all courses, except

medicine which lasted seven years (UEM, 1991; UEM, 1998). There was a sense that a five-year training programme was too long and onerous for the limited state budget. Most programmes were based on a single-stage structure (five-year *licenciatura* without any intermediate stage). It also had a rigid prerequisite system that conditioned student graduation on the preparation of an acceptable *licenciatura* thesis. Moreover, the curricula were encyclopaedic and reflected a compartmentalised and static view of knowledge. The study plans comprised very heavy course loads (in certain cases beyond 32 hours per week). The professional and graduate profiles of the existing programmes were regarded as outdated and irrelevant to the needs of Mozambican society (Mário et al., 2003).

The curriculum review resulted in the reduction of the length of the first-degree study programmes from five to four years; the number of contact hours was reduced from 32 hours to 29-25 hours a week; and three-year bachelor's degree programmes were considered being introduced, where appropriate (Mário et al., 2003).

In the administrative domain, the university experienced an internal restructuring from 1981 to 1990 that resulted in a new management and functioning structure. The new structure conformed to the duties assumed by the university, the size and the nature of its work, and the amount and quality of resources the university possessed. The central management plan intended to organise, coordinate, and control the processes, the production of material, and the provision of services, taking into account their magnitude, complexity, and nature (UEM, 1982).

The university's organisational structure was undergoing a process of change as the years went by, taking into account the need to fulfil the university's mission, and the university's growth and expansion. New units were emerging, both academic and research units, as well as administrative units at central level. As a result, notable change occurred due to the discontinuation, merger, and emergence of new administrative units.

Thus, there were directorates that initially had the status of sections and back then had a different designation. This was the case of the Academic Registry Directorate which previously was functioning as an office section. Between 1988 and 1989, the existing Section of Finance, the Section of Personnel, the Pedagogic Section, and others were turned into divisions. Later the divisions were transformed into directorates. The change from divisions to directorates reflected the availability of highly qualified professionals to move into different sectors of activity and services.

The data also showed that the university created an administrative unit called *Administration of the University*, which provided services such as gardening and outdoor comfort. Moreover, as stated by a central services participant, '*we had a*

Directorate for Logistics and Provisioning to ensure that the acquisitions at EMU were made following the rules. There was a need to reinforce the internal audit within EMU, establishing an Office of Internal Audit detached from the Financial Directorate. The aim was to improve the financial system of EMU in order to bring more credibility to the administrative system and the financial report' (Central Services Manager 3).

The statement shows how occasional circumstances also determined the establishment of administrative units that were not effective in the long run.

The reorganisation of the university also affected the organisational structure at the level of the faculties. At the Faculty of Engineering, for instance, the internal organisational structure was comprised of departments (with and without courses), technical services, internal centres, and the administration. Each department, particularly the academic department, was structured by courses and sections, and organised according to the field of knowledge. The technical services provided specialised services to the users. The centres were equipped to serve the departments. The administration of the faculty was organised in departments, divisions, and sections.

According to the study participants, when the Faculty of Engineering was established, in 1962, the management was centralised and the organisational structure comprised of advisory bodies (the Faculty Council, Board of Directors, Scientific Council, and the Pedagogic Council) with clear competencies as well as departments (academic and non-academic). From 1975 to 1980, a non-centralised collegial governing body was installed, and, by1980, major changes had been implemented (FENG, 2015).

In the same perspective, a university leader stated that *'there was a reorganisation of the EMU structure as it went from five faculties (physics, chemistry, geology, biology and mathematics) to one, (...) the Faculty of Sciences [located] on the main campus. It was a physical and conceptual transformation to join these fields to become one faculty*' (University Leader 1).

Changes in the administrative structure also were recalled with the closing of the Faculty of Education in 1986, justified by the emergence of the Higher Pedagogic Institute, later transformed into Pedagogic University whose sole mission of teacher's training overlapped that of the Faculty of Education. From 1986 to 2000, the organisational structure of EMU did not picture the Faculty of Education, which was reopened in 2001. Thus, the university experienced an internal restructuring in the management and functioning structure from 1981 to 1990 (UEM, 1982).

4.1.2.1.3. The 1990s: EMU during the Period of Democratisation

In the 1990s, Mozambique was experiencing a period of democratisation, with the approval of the country's new constitution in 1990, and the end of the Civil War in 1992.

At EMU, changes occurred in two domains, specifically at the pedagogic and infrastructure levels. In the pedagogic domain, entry exams (admission exams) and postgraduate courses were introduced. As for the infrastructure domain, there was the expansion of the university's physical infrastructure.

The university entry exam, institutionalised in 1991 (Ministerial Decree 20/91 of 6 March), was an innovation in the admission process at EMU. Previous to the entry exam, graduates from secondary level entered directly and were directed in their study field. The introduction of entry exams as a selection criterion to enter the university was justified by the disproportion between supply and demand. There was a growing number of candidates applying to EMU and the vacancies were insufficient. Moreover, there was a need to standardise and harmonise the conditions and criteria for accessing higher education in order to ensure equal opportunities to all citizens and to more accurately select the candidates for the various courses.

The postgraduate courses introduced in 1999 were considered a remarkable change by participants. Initially, Eduardo Mondlane University introduced postgraduate courses at the doctorate level in the Faculty of Law, Faculty of Arts and Social Sciences, and the Faculty of Sciences. More specifically, the university began offering a PhD in Law, Linguistics, and Science and Technology of Energy.

From the participants' perspective, the institution was offering candidates the possibility of obtaining a PhD degree, without omitting the working connection and family ties. There is an understanding that finding a scholarship and going abroad was no longer the only option for getting a postgraduate degree. The local offer seemed perfect for those who either lacked funds or wanted to remain in the country while pursuing postgraduate training.

It appears that the introduction of postgraduate courses in a variety of fields contributed to increasing the student population at EMU. It also revealed the university's maturity and commitment to providing high-level training locally in responding to the demand for postgraduate courses.

The expansion of EMU through the development of new infrastructure was foreseen in EMU's strategic plan (1999-2008). The plan proposed, among other things, (i) the expansion of the infrastructure and modernisation of equipment in order to improve the

quality of teaching and research; and (ii) the retention and consolidation of the Mozambican teaching staff, valuing and recognising the role of the teachers as educators and promoters of a critical spirit and of scientific curiosity, as well as the stabilisation of the technical and administrative personnel (UEM, 1998).

The growing number of students, the emergence of new scientific areas and courses, the reorganisation, resizing, and establishment of new faculties, the introduction of postgraduate programmes, and the increment of scientific activities required the development of appropriate infrastructure to respond to EMU's strategic plan. The expansion implied the enlargement of existing installations and the setting of new spaces on other sites in Maputo and also in the provinces. The existing human capital and technical capacity was a determining factor in this process (UEM, 1998).

The setting of experimental fields and initiatives for distance learning and continued education, alongside the opening of new campuses, became part of EMU's expansion plan across the provinces, and it included infrastructure modernisation attempts (UEM, 1998). Moreover, the establishment of a branch of the Faculty of Law in Beira in the 1990s falls within the context of university expansion. It also represented the university's first attempt at expansion across provinces.

4.1.2.1.4. From 2000 to 2007: EMU during a Period of Mass Education

In the early 2000s, implementation of EMU's strategic development plan (1999-2008) concerning the expansion of EMU across provinces with the opening of higher schools and the introduction of postgraduate courses and new undergraduate courses resulted in the expansion of university access.

The data showed that during this period, the major changes at EMU occurred in three domains, namely pedagogy, governance, and infrastructure. Changes in the pedagogic domain entailed the third and fourth waves of curriculum reform, university access, and introduction of a post-work regime.

The third wave of curriculum reform, which started in 2001, was part of the broad movement of academic reforms and entailed the extinction of the (preparatory) 'zero semester' and the design of competence-based curricula. The aim was to adjust the study plans and their content to the country's new circumstances and the labour market's demands.

According to a workshop participant from the board of the Faculty of Engineering, a series of events characterised this phase of the curriculum reform. In 2001, '*The zero semester introduced under the context of the BUSCEP* [see later] *project was eliminated*' (Faculty Manager 6). This resulted in the termination of propaedeutic

courses that prepared secondary-school graduates for entering the university, with implications for the quality of the first-year students attending science-related courses. From the perspective of the participants, the quality of students enrolling in university courses deteriorated. On the other hand, the elimination of the zero semester shortened the permanence of students at EMU in relation to the length of the courses.

The two other innovations were the introduction of a *licenciatura* (honor's) degree lasting five years contrary to the previous six years, particularly for those courses offering a bachelor's degree; and the introduction of competence-based curricula. Concerning the design of competence-based curricula, the Faculty of Education became an example in curriculum development and supported other academic units in the conception of their curricula.

The fourth wave of curriculum reform took place between 2003 and 2005 in response to the movement of regional integration. According to participants, this curriculum reform entailed the harmonisation of the local curricula using regional standards to ensure academic mobility (for students and teachers) and credit transfer. The reform resulted in the abolition of what were known as *lapses*. The *lapse* was a procedure introduced into the EMU's pedagogic regulations to prevent the enrolment for a third consecutive time of students who failed twice consecutively at the same course year level.

The aim of the academic reform was to ensure similar education conditions and professional integration for Mozambican students, as if they were occurring in other SADC countries, through the adoption of a comparable credits system (Mucavele, 2010).

In relation to the emergence of what is known as the post-work or after-work regime in 2001, the university began to offer some existing undergraduate courses in the evenings. The evening shift was gradually implemented in several academic units. Whereas the Faculty of Education began its implementation in 2007, the Faculty of Engineering introduced it in 2008, and the Faculty of Sciences only in 2011.

From the participants' perspective, the emergence of an after-work regime at the undergraduate level responded to the high demand for university education. The introduction of the after-work regime aimed to facilitate access to higher education by individuals who, for different reasons, had difficulties attending school during daytime (UEM, 1998). The after-work regime functions as the commercial branch of the university and is self-sustainable through student tuition fees. Whereas the state budget covers the day shift courses and teachers' income, the after-work courses became an

alternative for teachers to increase their salaries by expanding their working hours (Langa, 2012).

Other reasons behind the introduction of the after-work regime were, according to a central services manager, the idea of maximising the use of available space and therefore the '*use of facilities that were closed during the night*' as well as '*generate revenue for self-sustainability of the EMU's academic units*' (Central Service Manager 3).

Another participant holding a leading position corroborated the previous statement saying that the introduction of the after-work courses aimed '*at the sustainability of the academic units, while gaining time and space. The space increases by using it more often, in the morning, afternoon, and evening. We had thirteen thousand chairs. So, if we offered morning classes and afternoon classes this would be twenty-six thousand chairs, and if we did more, there would be thirty-nine thousand or forty thousand students. It was based on this logic that we introduced the after-work regime*' (University Leader 1).

Although the after-work courses were an extension of the courses offered during daytime, the administrative and financial management of the courses differed. The administrative and financial management of the after-work courses was decentralised. However, the norms for the management of these funds are strictly followed, and the labour costs for all staff involved in teaching, administration, and management of the after-work courses are supported through funds collected from the students' fees (FENG, 2011).

Concerning university access, this was described in terms of entry criteria. In fact, in combination with the entry exams, the quota system and special clearances were referred to as the criteria to enter the university for specific categories of candidates. Those include students coming from the provinces beyond Maputo, female students, former freedom fighters, employees' relatives, and technical and administrative personnel. This innovation concerning university access has deeply influenced the profile of students admitted to the university. This measure was intended to balance regional asymmetry, and ensure equity and social justice. Accordingly, to attain this aim, the EMU's Strategic Plan envisioned and proposed a process of admission that would consider national and regional representativeness (UEM, 2008, p.17).

In 2002, EMU introduced the quota system aiming to mitigate regional disparities and to ensure equal opportunities to students coming from all Mozambican provinces. Through the quota system, five per-cent of the vacancies were reserved for candidates coming from the provinces. The introduction of the (provincial) quota system at EMU was also meant to promote the principle of unity. Thus, the rationale behind the

introduction of such a measure was the idea of the 'consolidation of the national unity' stated in the 1990's Constitution of the Republic of Mozambique (*Assembleia da República*, 1990).

It was understood from workshop participants that the access policy negatively affected the quality of students entering the university. The national/regional representativeness, as an alternative for academic merit, introduced subjectivity in the university access criteria, compromising the quality of the students.

During a workshop, a FACED alumnus argued: '*The quality of students newly admitted might have been affected, as high scores on the entrance exam were no longer considered the main selection criteria*' at Eduardo Mondlane University (Alumnus 1) due to the introduction of alternative entry mechanisms.

Participants from the Faculty of Sciences argued that there were implications for the performance assessment of the lecturers, since the annual learning outcome constitutes one of the indicators for teacher's performance assessment.

With regard to the special clearance, EMU introduced entry criteria as a way to allow technical and administrative personnel to enter the university (Order 002/RT/2005 ratified by former Rector Brazão Mazula). This measure was meant to encourage technical and administrative personnel to pursue further education at a higher level (*Gabinete do Reitor*, 2005). Specifically, special clearance would benefit applicants who failed to get the minimum score required for admission (*Gabinete do Reitor*, 2005a).

Despite the positive discrimination, special clearance seemed to raise the issue of quality of the candidates. Moreover, there was the issue of matching the academic qualification with the employees' function as stated by a workshop participant from the Faculty of Sciences:

The upgrading of academic qualifications without observing the issue of institutional planning conflicts with the administrative management processes, since the [staff attends] courses in areas in which the department/faculty do not expect them to be trained. There is an increment of graduates amongst the technical and administrative personnel (CTA), whose training choices do not fit in with the faculty development plans (Faculty Manager 2).

Changes in the governance were related to administrative and financial reforms and the introduction of the position of administrator within the academic units' organisational structure. The state approved and introduced legislation and more adequate management models to deal with the emerging demand of the public treasury

administration, the Law 9/2002 of 12 February (*Assembleia da República,* 2001). This law created the Financial Management System of the State – SISTAFE. Through the financial management reform, the university was able to modernise its system of financial management, making it more reliable. The reform started in the Financial Directorate and was afterwards replicated in the faculties and schools.

According to Gumport, (2007), the growth in the number of administrators may be seen as an attempt to manage internal functions to coordinate the work of an increasingly complex organisation and to report on campus operations as demands for information increased from system and state offices. Expanded administrative positions with oversight responsibilities did as well given calls for streamlining and downsizing.

From the Central Services managers' point of view, the need to reform the financial management system was determined by the fact that '*the university was growing and the management system was old and inadequate for the dimension of the university, and for the expectations of the university community. The university used books to record its operations manually. Modernisation, distribution of the budget, and planning was at the centre of the reform intended to adjust the financial management system to fit the current situation. Moreover, the university lacked qualified technical staff to produce reliable and detailed technical reports*' (Central Services Manager 5). '*The reform created standards to measure performance, control where the money was spent, and how to allocate the money*' (Central Services Manager 3).

From the participant's perspective, the reform of the financial management and the training of technical staff introduced more transparency and accountability in the institution. This improvement also fulfilled the expectations of the university partners, particularly donors and international funding agencies.

The administrative reform carried out by the university in 2000 shaped the university's organisational structure. Accordingly, the university created the Administration of the University, an administrative unit that provided outdoor services such as the management of green spaces on campus. Moreover, the university established the '*Directorate for Logistics and Provisioning to ensure that the acquisitions are done following the legal mechanisms. The establishment of the Office of Internal Audit, detached from the Financial Directorate, reinforced the internal audit within EMU. The aim was to improve the financial system of EMU in order to bring more credibility to the administrative system and the financial report*' (Central Services Manager 3).

Concerning the university structure and management, the university leaders shared their view on the university structure. A university leader said:

In the pedagogic area, for a long time there were only very few directorates, namely the Directorate of Pedagogic Affairs and the Directorate of Students Affairs. Now, new directorates were created, the Pedagogic Directorate, the Scientific Directorate, and the Directorate of the Academic Registry. In the administrative area new units were created as well, the Directorate of Administration of the Campus, the Directorate of Logistics and Procurement, and the Directorate of Property and Institutional Development. New centres emerged, namely the Centre for Coordination of Gender Issues (CeCAGe), the Centre for Distance Education (CEND), the SADC Regional Integration Law Study Centre (CEDIR), the Centre of Studies of Policies and Agrifood Programmes (CEPPAG), and the Centre of Biotechnology. At the faculty level, there is the Faculty of Philosophy, the Faculty of Arts and Social Sciences, the resurgence of the FACED, and the emergence of schools, namely the School of Communication and Arts in Maputo (2002), the School of Hospitality and Tourism in Inhambane (2005), the School of Rural Development in Vilanculos (2008), the School of Business and Entrepreneurship in Chibuto (2009), the School of Marine and Coastal Sciences in Quelimane (2007), and the School of Sport Sciences (2010) in Maputo (University Leader 1).

The establishment of higher schools became a priority in the education sector and particularly for the subsystem of higher education that aimed to expand the higher education system and enhance the quality of education through polytechnic institutes and public-private partnerships (*República de Moçambique*, 2010: 17). The emergence of the higher schools was also expressed in the first EMU' Strategic Plan (UEM, 1998). The EMU's Strategic Plan, 1999-2003 foresaw the establishment of higher schools in locations where the university was absent, aiming to ensure the geographical expansion of EMU, to meet the demand, and the need for new courses (UEM, 2008: 19).

According to another interviewee, '*the establishment of schools in the districts was the university's initiative to contribute to the government programme for the expansion and development of the districts*' (Former University Leader 4).

The physical infrastructure of EMU increased due to the emergence of university campuses in schools located outside Maputo. Moreover, the construction of new buildings for the *Pedagogic Complex*, *University Practice*, new Rectorship, Faculty of Sciences, and Faculty of Education also enlarged the infrastructure located within the main campus.

With a more solid infrastructure, the university introduced new courses. Accordingly, more people got access to EMU, fewer people became dependent on scholarships, and the families and the university experienced lower financial burdens. It also meant more opportunities for people living in the provinces. The closeness of the schools to the

resources needed, natural laboratories with specific potentialities, led to matching specific courses with the local environment.

4.1.2.1.5. From 2007 to 2011: EMU during the Attempt to Bring HE in Line with Europe's Bologna Process

The data showed that from 2007 to 2011 the university was carrying out academic reforms which entailed the transformation of the existing curricula following the Bologna curricula structure and philosophy.

As stated by Justino (2009), the signing of the Bologna Protocol by European countries in 1999 was a movement towards the internationalisation of HEIs. This event marked the beginning of European university reform. The objective of the reform was to align the structure and duration of undergraduate and postgraduate courses offered by the European University Community to increase the possibility of exchange among them. As part of this process of reform, European higher education institutions aimed to adopt comparable curricular structures, establish a common system of credit transfers, promote student mobility, and develop shared quality assurance methodologies (Rico, 2010).

Countries like France, for instance, with a first degree of three years, followed by a two-years master's degree, and one or two-years PhD studies, had to adapt to the American system, where a graduation course lasted around four years, followed by a two-year master's degree and three or more years PhD. Thus, the adapted French License-Master-Doctorat (LMD) system allowed student mobility in the European space of higher education. Germany, instead, kept its old higher education structure for a while longer but simultaneously created new undergraduate and postgraduate courses following the structure proposed by the Bologna Protocol (Justino, 2009).

Following this trend, changes were also introduced in the pedagogic domain at EMU, and the fifth wave of curriculum reform took place between 2007 and 2011. In 2008, EMU ratified the Bologna Protocol, which affected EMU's organisation and academic structure. According to the participants, the accession to the Bologna process led to the establishment of the Academic Reform Office in charge of coordinating the process of academic reform. The goal of the reform was to improve the quality of teaching and the quality of the courses taught at EMU by introducing a new curriculum design comprised of a credit transfer system and participatory learning methodologies. In other words, it allowed the introduction of student-centred learning approaches that led to the use of methods such as problem-based learning and project-based learning. It also promoted interdisciplinarity by allowing the connection between various subjects within the same training cycle.

The restructuring of curricula was intended to create learning pathways, including lifelong learning, flexible learning, and student-centred learning in order to encourage individual work and research skills. Through academic reform, the educational paradigm changed from the acquisition of knowledge delivered by the teacher, to a student-centred model that enhanced the development of generic and specific skills (Mucavele, 2010).

The academic reform was one attempt to internationalise the courses at EMU. The Bologna model foresaw a structure comprised of three training cycles that would enable the acquisition of certain knowledge, skills, and competencies, through the accumulation of a set of credits. The first cycle corresponded to the bachelor's degree, the second to the master's degree and the third cycle is the doctoral degree. The first training cycle has a formal term of three to four years or a number of credits. EMU adopted a degree of three years. The second training cycle formally lasted one year and a half to two years or a number of credits. The third cycle lasted three years. The Bologna Protocol led to the reduction of the length of undergraduate courses offered in both regimes (daytime and evening time). Since the principles of the Bologna process entailed '*three-year bachelor's or licenciatura degree, two-year master's degree, and three-year doctorate degree; in seven years, students would finish the university degree*' (Former University Leader 3) taught via a new '*…teaching and learning methodology (problem-based-learning – PBL)*' *(*University Leader *2).*

According to a Central Services participant: '*At EMU, there was a need to reform some faculties, particularly the faculties of Medicine, Agronomy, and Veterinary. The reforms were introduced and the Faculties of Arts, Sciences, and Engineering developed a new curriculum*' (Former University Leader 3). However, in the middle of its execution it was interrupted and afterwards the reform was blocked, since the rector who introduced this innovation was replaced by a new leadership that dismissed this reform by approving a new curricular framework. After that, a new cycle of curriculum adjustment began, discontinuing the Bologna Process (see the next section).

The approval of the New Curriculum Framework for undergraduate courses (Deliberation no. 16/CUN/2011) together with the Standardisation of EMU's Curriculum Guidebook (Deliberation no. 19/CUN/2011) (*Conselho Universitário*-UEM, 2011) constituted the response of EMU management in order to remedy the issues resulting from the implementation of the Bologna-based curriculum. As stated by a workshop participant from the CDA '*The university community (students and teachers) and employers were sceptical about the outcome of the three-year curriculum for all courses except medicine, which lasted four years. Consequently, employers showed no commitment towards employing graduates of the Bologna curriculum*' (CDA Staff 1).

Once the new curriculum framework was approved, faculties and schools adjusted their curricula and evaluated their applicability to ensure academic harmony and regional integration, as well as the quality of teaching and graduation (*Conselho Universitário*-UEM, 2011).

Student-centred learning was an element that remained from the Bologna model, and the methodologies behind this paradigm were adopted by EMU since they comprised participatory learning approaches. The teaching paradigm changed and the student-centred model based on the development of generic and specific skills became dominant (Mucavele, 2010). The inclusion of participative learning methods in the curricula took into account the nature of the subjects, combining the teaching and learning activities such as lectures, laboratory and practical assignments, student participation in research and extension activities, and study problem-solving, scientific journeys, and group work.

Still in the pedagogic domain, the university introduced distance-learning courses. The existing Regulations for Distance Learning and public institutions promoting distance education in Mozambique, and the need to expand the opportunity to access higher education, enabled the establishment of the Centre for Distance Learning (CEND) within Eduardo Mondlane University through the University Council's Resolution 13/CUN/2002.

The CEND became responsible for the coordination and promotion of all activities of the Distance Learning System at EMU. The programme of distance learning offered in various faculties at EMU, including the Faculty of Education, fits in with the distance learning strategy advocated by the government, which recognises that the expansion of educational opportunities will be scarcely feasible in the near future if dependant only on classroom teaching (CEND, 2014).

In the governance domain, new pedagogic, administrative, and financial practices were introduced due to the decentralisation of management procedures in the pedagogic, administrative, and financial sectors.

The pedagogic, administrative, and financial management processes that were in the past highly centralised became decentralised, and competences delegated. The responsibility for managing these processes was assigned to different levels, and this entailed the need to build up a management capacity at the level of the academic units for the implementation of decentralised management (UEM, 2008, p.38). Hence, the units became semi-autonomous and responsible for taking decisions regarding pedagogic, administrative, and financial matters.

Another administrative change was related to the centralisation of the system of academic registry back in 2010, enabling the establishment of an electronic system for student management. Since then, student registration and academic records have been processed in an effective way due to the new digital academic registration system.
The digitalisation of academic records also enabled the rationalisation of space needed to archive students' individual files. Manual handling of the physical processes enhanced the possibility of spoiling the students' individual files. Student management became more effective and the centralisation of the files in the Academic Registry created a better information management system.

With regard to the human resources sector, there was a remarkable change. In 2009, the Ministry of Education approved a new Higher Education Teacher Training Strategy for Mozambique, designed by the Centre for Academic Development of the FACED. The psycho-pedagogic training plan was meant to benefit all the teaching staff whether in public or private higher education institutions. Moreover, the issue of quality of the teachers was taken into account in the movement towards the improvement of the quality of education.

4.1.2.1.6. From 2011 to 2016: EMU Addressing Mozambique's Own Demands

During this period EMU was challenged to play a greater role in responding to the country's new demands. The development of the national education project, and the prospecting and exploration of hydrocarbons required new regulations and strategies to manage the development of the education system, as well as a new profile of professionals to work in this emerging field. But first and foremost, this period marked the shift from a period of strong and contested leadership, to a more democratic and more autonomous university.

There were changes in the governance, human resources, pedagogic, and administrative domains. The changes in the governance domain were related to democratisation in the nomination of rectors and deans, as well as management and leadership styles.

In 2011, the nomination of the rector and deans became a democratic process. There was an understanding that the democratisation of the process of appointing a new rector and deans would lead to active participation of the university community. The old Constitution of the Republic of Mozambique stated that the president had the prerogative to appoint rectors to public universities. This nomination procedure was a centralised one, and it was implemented for more than three decades without following the democratic principle of universal suffrage for the selection of a leader (*Assembleia Popular*, 1975).[49]

[49] Constitution of the Republic of Mozambique of 1975, in its Article 121, determines, in the subparagraph b), that the president appoints and dismisses the rectors and vice-rectors of public universities.

The process of nomination for the rector's position for public HEIs has changed, in line with new democratic procedures. Accordingly, the selection of candidates for the rector's position at EMU currently involves the university community, and the process is coordinated by a selection committee mandated by the university council. Candidates are chosen from among the members of the university, and the names of the proposed candidates are afterwards submitted to the president of the republic who nominates one out of three proposed nominees. However, the president still has the prerogative to nominate anyone, including an outsider, contradicting the internal appraisal and the university members' expectations, leaving them no other choice than to welcome the new leader. The impact of such decisions on university governance is debatable, particularly when the new leadership's projects are not aligned with the collective vision and desires. The leader's background and profile as well as leadership style, are determinant in the acceptance of the new leader, and his or her impact on university processes and functioning.

The democratic principle of selecting potential candidates to become rector was also applied in the nomination of deans of faculties, schools, and centres. Before the institutionalisation of the elections, the rector was the one who appointed people for dean positions, and the university community did not participate in the process. The democratisation of this process allowed the faculty/school members to actively engage and participate in the election of colleagues who met the prerequisites to be appointed as deans of a faculty/school.

Concerning the management and leadership style, participatory and collegial management was introduced at EMU. Consultative meetings with the university community and monitoring visits became a regular practice amongst the central managers. Democratic leadership was instituted in the institutions so that the collegial bodies play a meaningful role.

The changes concerning human resources included a professional development plan, and a teacher training plan. The teacher training plan was an initiative developed by EMU and commissioned by the Ministry of Education (MINED) with the aim of changing a scenario characterised by high student retention rates and low graduation rates.

In 2011, the rectorship approved the terms of reference for the establishment of a commission responsible for reflection on psycho-pedagogic training for higher-education teachers with the goal of setting up a more comprehensive and enhanced teacher-training plan (Order No. 132/RT/2011). The plan for continuing education and

professional development of the university teachers, lasting four years (2012-2015), resulted from the work of this commission.

The strategy and the plan for the training of teachers of HEIs is seen as a proactive action to address the challenge of quality, and it was approved by Resolution 29/2009 of 21 May to ensure the quality of graduates. The development of a teacher-training plan was aimed at increasing the scientific and psycho-pedagogic knowledge of the beneficiaries (MINED, 2013). The new psycho-pedagogic training plan targets teachers from public and private higher education institutions. The training modules are credited following the Regulatory Framework for National Higher Education Qualification with regard to short professional courses (*Conselho de Ministros*, 2010). Thus, certification of courses indeed became rather important, as course attendance constituted a requirement for any change in teachers' professional classification.

Administrative changes included the establishment of the Quality Office at a central level in 2012, an administrative unit whose mission became to promote continuous improvement of academic quality at EMU. The emergence of this unit led to the process of accreditation of the courses offered at EMU. In 2007, the Council of Ministers created a National System of Evaluation, Accreditation, and Quality Assurance for Higher Education (SINAQES). The implementation of SINAQES was largely dependent on the setting of institutional conditions for monitoring.

The Strategic Plan for Higher Education (2012-2020) established the objectives, actions, and milestones for the Higher Education Subsystem, regarding quality, expansion, and access; management and democratisation; and financing and infrastructure. The SINAQES establishes that the expansion of higher education institutions and the need for harmonisation at a national, regional, and international levels demanded the establishment of mechanisms to assure quality and relevance of services delivered by HEIs (CNAQ, 2013).

In this context, EMU created a Quality Management System (SISQUAL-UEM) and the Office for Academic Quality (GQA) in 2013 (Deliberação No. 63/CUN/2012), intended to carry out quality control in all courses offered at EMU. The Office for Academic Quality would perform regular assessments of the quality of teaching, research, and extension to conform with standards and criteria established both nationally and internationally, and, in this way, it would contribute to the implementation of the Quality Management System at EMU (SISQUAL-UEM) (*Gabinete de Garantia de Qualidade*, 2014).

The establishment of the Office for Academic Quality at EMU in 2012 allowed for, according to an interviewed university leader, '*more systematic monitoring of the teaching and learning process. The office of academic quality assumed total quality*

control in all domains. [The office] started with the [assessment of] undergraduate [courses] under the guidance of the Ministry of Education' (University Leader 2).

The establishment of the Quality Office at EMU, in 2012-2013, enabled the establishment of quality departments in the academic units. According to a FACED workshop participant, the EMU's Quality Office led to the '*establishment of a Quality Department at the Faculty of Education*' (Faculty Manager 1).
Quality assessment and control of the learning process became a determining factor for the accreditation of the HEIs in the local context, based on the monitoring of the functioning of the HEIs by the educational authorities.

4.1.2.1.7. From 2016 Onwards: EMU in Pursuit of Becoming a Research University

Back in 2013, the university redefined its vision and mission[50] aiming to transform Eduardo Mondlane University into a top research university, and acknowledged as such in sub-Saharan Africa as well as internationally. Research was expected to become the foundation of the teaching-learning and extension activities. This was assumed to be the best way for EMU to contribute to the production of scientific knowledge and to a greater institutional intervention in the development of Mozambique, in general, and higher education, in particular (UEM, 2017a).

In the years after the redefinition of its mission and vision, the university carried out some changes in the context of its restructuring in order to accomplish this vision. Accordingly, late in 2015, the university launched the Pedagogic Process Management Procedures Manual whose implementation began in 2016, with the aim of optimizing pedagogic management in order to guarantee: (i) compliance with curricular plans, (ii) effective and meaningful student learning, and (iii) quality of learning (UEM, 2015b).

In 2017, the university council approved the new strategic plan (EP-UEM 2018-2028), whose goal was to ensure that planned strategic actions would contribute to the realisation of the goal of transforming EMU into a research university. Thus, changes in the university's organisational structure were introduced, with an impact on the university planning processes and evaluation mechanisms. Since then, the external evaluation of courses following its accreditation became regular practice.

[50] The current vision of the university is '*being a university of national, regional and international reference in the production and dissemination of scientific knowledge and innovation, highlighting the research as the foundation of teaching and learning and extension processes*' (EMU, 2013, p. 4). Its current mission is to '*produce and disseminate scientific knowledge and promote innovation through research in support of teaching and learning and extension processes, educating generations with humanistic values in order to face the current challenges for the development of society*' (EMU, 2013, p. 4).

In 2019, the merger of the Planning Office and the Quality Office resulted in the establishment of the Planning, Quality, and Institutional Studies Office, abbreviated as GaPQEI. This new unit would articulate and coordinate strategic actions related to the organisation and functioning of the university. It is responsible for the development, monitoring, and evaluation of the university plans; management of statistical data; management of assessment processes and self-assessment of courses; carrying out institutional studies; and management of a Documentation and Memories Centre (UEM, 2021).

By way of preliminary conclusion, we can say that the study found that the remarkable changes that occurred at EMU during its existence were related to five domains: pedagogic, administrative, management, human resources, and infrastructure and property.

Pedagogic related changes were with regard to the university entry mechanisms which include access criteria and student body profile and school mechanisms that cover curriculum design, teaching methodologies, as well as research as the foundation of the teaching-learning and extension processes.

The administrative related changes involved financial procedures and management of financial resources. The changes on services provision entailed its quality as well as the quality and efficiency of the service providers.

The management related changes were referred to as the EMU's organisational structure that evolved over the decades, with the emergence and extinction of academic, research, administrative and special units. The governance style, now based on collegial bodies with a participatory type of leadership, had a major impact on the university performance and status.

Human resources related change included staff training to improve their qualifications for better performance and institution's efficiency.

Infrastructure and property related changes included the expansion and modernisation of infrastructure: physical and technological.

The chronological recollection of changes is intrinsic to the PADev approach which enabled to contextualise people's recalled memory, experiences and perception on institutional change. It allowed to portray EMU as a changing organisation.

4.1.2.2. Development Interventions at EMU

Overall, the recalled changes that transformed the various sectors of EMU, its processes, and functioning resulted from various initiatives carried out by the university community and its leaders, as well as from external interventions.

The various interventions categories and its types specified according to the origin or purposes of the interventions presented in Appendix XIX, were generated through Nvivo 12. As this overview was based on 'recall' mechanisms, as used during the PADev workshops and in individual interviews, the period that was recalled mainly goes back to the mid-1980s/early 1990s, and as a consequence of this approach many interventions of the immediate post-Independence period (1975-1985, with considerable support from communist countries) are not included, with the exception of long-lasting programmes funded by the Netherlands, which had already started in 1975, and of Italy and Sweden, which started in 1978.

The range of development initiatives recalled by participants, which included consortium and networks, funds, projects, programmes, partnerships, and events are detailed in the following lines for better contextualisation of their contributions to the university development.

4.1.2.2.1. Consortiums and Networks

The consortiums were led by United States-based foundations interested in supporting the development of higher education in Africa, based on the assumption that during the 1980s universities were neglected by the agencies that financed the education sector worldwide.

At EMU, there were, according to a university leader, three consortiums in the 1990s, namely '*Higher Education Consortium, Information Communication Technology for Development Consortium, and Science and Mathematics Network*' (Former University Leader 1).

The integration of EMU in the network of international organisations supporting the education agenda and targeting specific areas seemed to be important for the development of some fields within the university.

Higher Education Consortium (after 1986)

The Higher Education Consortium was an initiative established by four American foundations (United States) interested in investing in the improvement of higher education in sub-Saharan Africa. The consortium established in 1990, included '*the*

Carnegie Foundation, the Ford Foundation, the Rockefeller Foundation, and the MacArthur Foundation. In Mozambique, EMU was the focus of the consortium, mostly supported by the Ford Foundation and the Rockefeller Foundation' (Former University leader 1).

In 1986, the Ford Foundation approved a grant of USD 250,000 to EMU for the acquisition of library materials in the fields of social and human sciences, and agriculture and natural sciences. The grant also supported professional exchanges (seminars and conferences, institutional contacts) and the development of computer facilities such as hardware, software, and publications (The Ford Foundation, 1986).

Information Communication Technology for Development Consortium (1990s)

The Higher Education Consortium composed of the four American foundations (Carnegie, Ford, Rockefeller, and MacArthur) also established a network to support the development and the use of information technologies in African universities.

This network was established in a period in which internet access was a big issue. '*The internet costs were higher, which prevented universities from benefiting from this development. The aim of the network was to enable the exchange of knowledge among universities, the development of the utilisation of ICT, and joint work. Eduardo Mondlane University, the University of Dar es Salaam, the University of Kampala, Rhodes University, and two Nigerian universities were part of the consortium*' (Former University Leader 1).

From this initiative, EMU, through CIUEM, became the leading institution in the provision of technological services countrywide with the first internet connection established in 1992 through domain MZ. EMU experience was also capitalised with its participation in the design of the first policies and strategies of the information and communication technology sector.

Science and Mathematics Network (1990s)

The Science and Mathematics Network was an initiative led by Princeton University in the US, which was funded by the Carnegie Foundation. A former leader emphasising the contribution of this particular network stated that '*the aim of this initiative was to establish a network of excellence in the field of science and mathematics amongst African universities*' (Former University Leader 1).

The legacy of this initiative was the establishment, at the Faculty of Education, of a Department of Education in Natural Sciences and Mathematics, which also offered a

Master's Course in Education in Natural Sciences and Mathematics. It also strengthened the field of science and mathematics education at EMU mainly centred at the Faculty of Sciences.

Concerning the findings, it can be said that the consortium that integrated the four American foundations - Carnegie, Ford, Rockefeller and MacArthur - with its focus on Universities in Sub-Saharan Africa played a role in the development of EMU within the frame of Higher Education Consortium and Information Communication Technologies for Development (ICT4 Development). Within this frame, a multi-sector support approach was employed, and the benefits from the intervention included literature, computer facilities and internet support. In the pedagogic sector, a multidisciplinary network initiative funded by Carnegie Foundation was carried out by an American university aimed to develop and excel in the field of science and mathematics. The data showed that the international foundations were committed to develop the African Higher education institutions within the frame of the higher education global reform agenda. Moreover, the field of science and mathematics gained a new status and produced knowledge and a set of new competencies to making sense of information and solve problems.

4.1.2.2.2. Funds

Three existing sources of funding made available at EMU were recalled by participants, namely donor funds, government funds, and institutional funds. Donor funds were provided by foreign donor countries, specifically Sweden, the Netherlands, and foreign financial institutions such as the World Bank. These entities supported EMU's operation, including its research agenda through various funds such as research funds, post-graduation funds, equipment funds, funds for publications and participation in conferences. Governmental funding was directed towards building the institution's capacity through the improvement of its learning environment and research capacity, mostly educational innovation. This included the National Fund for Research (FNI), and the Institutional Development Fund (FDI). The institutional funds are made available by EMU for the functioning of the academic units, and this included the reagents fund and the fund for the completion of courses. The referred funds are described in chronological order.

National Research Fund, FNI (2005)

Decree 12/2005 under the Ministry of Science and Technology, Higher and Technical Vocational Education, established the National Research Fund (FNI). It was established by the government of Mozambique as a funding mechanism for the system of science and technology (Langa, 2016) to promote scientific research and technological innovation, to promote and coordinate initiatives and activities concerning science and technology; and to financially support public or private entities aimed at the

development of research, science and technological innovation (MCTESTP, 2016). The FNI is supported by government's international and local partners, namely The World Bank, UNESCO, UKAid from the Department for International Development (UKAID/DFID), Sweden (Sverige), New Partnership for Africa's Development (NEPAD), IDRC/CRDI Canada, National Research Foundation (NRF), Deutsche Forschungsgemeinschaft (DFG), and others.

As a competitive fund, the FNI aims to: (i) guide scientific research according to the strategic priorities of the government; and (ii) finance and promote the implementation of programmes, projects, and activities in the field of scientific research and technological innovation. The FNI integrates three funding components, among which a fund for research and infrastructure development (*Fundo Nacional de Investigação*, 2015).

The Institutional Development Fund, FDI (2011)

The Institutional Development Fund (FDI) is an initiative managed by the Ministry of Education and integrated in the Project for Higher Education, Science, and Technology (HEST project).[51] The project is funded by the World Bank Group and non-bank sources (donors and borrowers) through the International Development Association (IDA) in the form of grants (investment project financing) to benefit all higher education institutions (HEIs) in Mozambique, both public and private (MINED, 2014). Approved on 25 February 2010, with a financing amount of SDR (Special Drawing Rights) 24.9 million (or the equivalent of USD 40 million), the five-year HEST project was extended for another three years, and an additional grant of SDR 22.83 million (the equivalent of USD 34.72 million) has been disbursed (92 percent of SDR 32.0 million or the equivalent of USD 45.0 million of the money initially requested by the Republic of Mozambique). The remaining funding is committed to specific beneficiaries (The World Bank, 2015).

The fund is competitive and designed to provide financial support for investments in the field of training and innovation in higher education. Its aim is to improve the quality and relevance of education through curricular reinforcement, including new graduate

[51] The Higher Education, Science, and Technology Project (HEST Project), is a World Bank-funded project (2011-2015, 2015-2018), implemented to respond to the objectives of the Republic of Mozambique, and the policies of economic development and poverty reduction. The project aims to increase the number and raise the quality of graduates at undergraduate and postgraduate levels, and to strengthen the national research capacities to produce useful research results in the strategic economic sectors (MCTESTP, 2017). The HEST Project has three components: i) strengthening of the governance, quality, and management system; ii) improvement of the quality of teaching, learning, and research through competitive financing; and iii) competitiveness and equity in scholarships. The project benefits, firstly, the Ministry of Science and Technology and the Sectors of the Science and Technology systems through the financing of part of their activities. Secondly, the project targets students of basic education through the funding of extracurricular activities, as well as higher education and research institutions, undergraduate and postgraduate students through the funding of research projects, and through technology transfer, and assignment of specific scholarships for postgraduate studies (MCTESTP, 2017). The project is comprised of various funding initiatives, including the Institutional Development Fund (FDI), the Scholarship Fund (FBE), the Science and Technology Fund (FCT), the MoReNet, and the National Research Fund (FNI).

programmes, improve teaching and learning, and install internship programmes in the context of partnerships with the productive sector (MCTESTP, 2015).

The FDI provides three types of financial assistance to higher education institutions (HEIs): (i) financial assistance to curriculum reinforcement and postgraduate programmes with a maximum of MZN 5,000,000.00, in the form of a donation, granted to public HEIs and in the form of a loan to private HEIs; (ii) financial assistance to means for the improvement of teaching and learning in the same scenario and also with a maximum of MZN 5,000,000.00; and (iii) financial assistance for the installation of internship programmes in the form of a donation or loan to be granted to any academic department (including collaborative teams involving more than one HEI) equivalent to MZN 1,750,000.00 (MCTESTP, 2015). Financial assistance for the application of technologies and for laboratories is granted to public HEIs in the form of donations and private HEIs in the form of loans, and it is intended to fund projects of introduction, expansion, and deepening of the use of technologies, including laboratories for learning, research, and management activities (Mário, 2015).

Reagents Fund (2011)

The Reagents Fund is a university initiative created in 2011 and made available through the Mozambican state budget. The Financial Directorate manages the fund, allocates money, and controls the use of the fund through accountability mechanisms. The fund initially benefited the Faculty of Sciences that needed reagents for its laboratorial and practical classes in the field of physics and chemistry.

Course Completion Fund (2014)

The Course Completion Fund is a university-funded initiative aiming to support final-year students' research in the completion of their courses, designed for students lacking money to develop their own research project. The fund was established as a means to stimulate the conducting of research work by students. According to a member of the Board of Directors from the Faculty of Sciences, '*the procedures to be granted support from this fund include the presentation of a budget proposal to develop a certain project, signing of a contract, and be accountable to their own faculty*` (Faculty Manager 4).

As a conclusion, we can say that the four funds that were recalled using the PADev were two major external funds and two small institutional funds. The National Research Fund (FNI) and the Institutional Development Fund (FDI) were supported by external sources (funding institutions), and both funds mainly supported the development of technological infrastructure, human resources, and pedagogic innovation through curriculum reinforcement, and promotion of research. The *Reagents Fund* and the

Course Completion Fund were recalled as the two internal initiatives that supported the teaching and learning, and the course completion work. The data showed the acknowledgment from the external funding entities and the local educational authorities of the importance of applied research to serve the society, and the need to develop institutions to better perform their mission. The data also showed that the two internal funds were available, on a regular basis, for courses in the field of science with impact on the conditions to ensure quality of the study programme and the graduates.

4.1.2.2.3. Projects

A range of projects was implemented at EMU, amongst them individual projects and projects integrated in different programmes, mostly funded by partner countries and institutions. Projects, quite often targeted individual units aiming to address specific issues or an identified problematic situation after establishing the root causes of the issue. During the PADev workshops and the individual discussions later, five major projects have been mentioned, that will be discussed per funding agent, in chronological order.

The World Bank Projects

The World Bank is a Bretton Woods institution headquartered in Washington D.C – United States, and established in 1944. It provides financial and technical assistance to developing countries around the world aiming to reduce poverty and support development (The World Bank, 2017). The World Bank projects at EMU include the Capacity Building Project and the Mozambican Development of Educational Policy (see Table 9, Appendix IX).

The Mozambican Development of Education Policy - MOZADEP (1990)

The development of the Mozambican education policy was a local initiative led by the Ministry of Education and funded by the World Bank. It was inserted in 1990 in the context of the development of the national education system that entailed the decentralisation of the process of planning and working within the Ministry of Education (Akesson, 2004).

In 1995, the Government of Mozambique adopted a National Education Policy and Strategies for Implementation as part of a national development plan for economic and social development. The education plan was operationalised in the Strategic Plan for the Education Sector 1999-2003 and approved in 1998 (*Ministério de Educação*, 1998, as cited in Kouwenhoven, 2003, p.18). This plan, the second most important education policy document, was the basis for mobilising support for education in Mozambique in the form of sector programme support through a partnership between the government,

civil society, and donors, specifically Sweden, Ireland, and the Netherlands (Akesson, 2004, p.15). The aims of the plan included an expansion of the access to education, resulting in universal primary schooling, improvement of the quality of education through curriculum reforms, and long-term sustainability of the sector that involves decentralisation (Kouwenhoven, 2003, pp.18, 19). Accordingly, the MOZADEP project contributed to the reopening of the Faculty of Education of Eduardo Mondlane University.

The Capacity Building: Human Resources Development Project - CBP (1992/4-2001)

The Capacity Building Human Resources Development Project (1992) aimed to improve the number and quality of secondary school graduates and higher education professionals. Through the project, an amount of SDR 34,100,000 (the equivalent of USD 60.3 million) was made available as a development credit agreement between the Republic of Mozambique and the International Development Association (IDA). The project's main objective was '*to build and maintain capacity in key public institutions and skill areas by expanding the supply of well-trained senior planners, policy analysts, managers, and technical staff, and improving incentives and working conditions for senior civil servants*' (The World Bank, 1992, p. ii). Overall, the terms and conditions of the loan included specific beneficiaries as declared in the project objectives (EMU and MINED), budget allocation, and application of funds.

One of the components of the project was the stabilisation of the university through systems development and training in university administration, financial management, and maintenance; provision of textbooks, computers, and library materials; construction and upgrading of staff housing, libraries, student dormitories, and other campus facilities; and staff development scholarships (The World Bank, 2002)

In the context of EMU, the project aimed to increment the quantity and enhance the quality of university graduates, as well as strengthen EMU's role in developing a policy of dialogue (The World Bank, 1992, p.15), by motivating the local teaching staff, enriching the learning environment, upgrading and maintaining the physical facilities of the university, and improving its organisational and managerial practices (The World Bank, 2002, pp. 2, 3).

The CBP was summarised by the study participants as a broad project that aimed '(i) to expand the higher education system in Mozambique, (ii) to enlarge the infrastructures of EMU, (iii) to operationalise EMU's first strategic plan entitled "Present and Perspectives, 1991", (iv) to train teaching staff, and technical and administrative personnel at post-graduation level, and (v) to foster EMU's interinstitutional cooperation' (W-Central Service1). The type of constructions that were built with the World Bank fund within the CBP were, according to some, '*the central library, the*

pedagogic complex, the sciences block/building, and the rehabilitation of the Faculty of Sciences, Engineering, and Geology' (University Leader 2, Central Services Manager 5).

The rehabilitation of EMU's physical infrastructure was seen as an opportunity to rectify over 20 years of neglect and restore the university's existing buildings to an acceptable state of repair. In this process, library and reading space in five faculties as well as bookshops, the Faculties of Architecture, Veterinary, Medicine, and Engineering were all rehabilitated and upgraded. In addition, a 'design and implementation of building maintenance programme' was set up, which included the procedures and training activities for staff responsible for the maintenance of the buildings (The World Bank, 2002).

German Technical Cooperation Project - GTZ (1992-1998)

German Technical Cooperation (GTZ) is a German organisation that funded a project that has been implemented in the Faculty of Engineering of Eduardo Mondlane University.

The project lasted from 1992 to 1998 and benefited the Departments of Electrical Engineering and Mechanical Engineering by supporting teaching and learning activities through the provision of scholarships for teachers, foreign teaching staff, vehicles, lab equipment (high-tension lab), training courses, and curriculum development.

Rocks Project (1995-2005)

The Rocks Project was a collaborative project involving the Faculty of Engineering of EMU and Portugal, and it intended to promote engineering as a key factor in the economic and social development and cooperation processes amongst Portuguese-speaking countries.

Its intent was to provide an ideal forum for the link between engineering companies, laboratories, key agents of economic sectors, associations and technical societies of engineers, and the engineering community of teaching and research, subsequent to its economic and social development (AEM, 2014).

EDIT Project

The EDIT[52] Project was a cooperation initiative between Delft University of Technology in the Netherlands and the Faculty of Engineering, in the 1990s. The

[52] EDIT stands for Electrical Engeneering, Mathematics and Computer Science Diversity and Inclusion Team (https://www.tudelft.nl/en/eemcs/the-faculty/diversity-inclusion-edit)

project integrated a variety of components including training for students, teachers, and technical staff; acquisition of lab equipment and computers; rehabilitation of the server room; acquisition of literature; internet connection; webpage design; computer room; and production of learning manuals.

Generally, the EDIT project was focused on training activities, the acquisition of equipment and production of pedagogic materials, and the improvement of learning facilities in the context of institutional capacity building.

Concerning the projects, five projects were listed, namely two World Bank -supported projects, and the German Technical Cooperation (GTZ), Rocks and EDIT projects. The WBP focused on the expansion of the Mozambican Higher Education System and the university as a whole, and integrated two projects, the MOZADEP and CBP. The World Bank's projects component included the reopening of the Faculty of Education at EMU closed in 1985 and this was the case of MOZADEP; the university stabilisation and capacity building in various domains that involved governance and management, hard and soft infrastructure, literature and staff training. The GTZ, Rocks and EDIT projects were implemented at faculty level aiming to foster teaching and learning activities in the context of institutional capacity building.

4.1.2.2.4. Programmes

Eduardo Mondlane University has had the benefit of long-lasting partners that have supported the university since its early stages. Funding agencies and development cooperation agencies representing donor countries (the Netherlands, Sweden, Italy, Belgium, and others) have been playing a role in the process of university transformation. Apart from funding the university itself, this support was also provided through development programmes integrating various components. Programmes usually were designed to achieve specific goals, and often several interventions are combined into a package to accomplish the goals.

Netherlands Organisation for International Cooperation in Higher Education – NUFFIC (since 1975)

In the 1990s, the main objective of the Dutch development policy was poverty alleviation and the provision of aid focused on the poorest countries (Buchert, 1994, p.148, as cited in Audenhove, 1999). In this context, two institutions played an important role, namely the Directorate General for International Co-operation (DGIS), a department of the Dutch Ministry of Foreign Affairs; and the Netherlands Organisation for International Co-operation in Higher Education (NUFFIC).

The support provided by the Dutch government for sustainable strengthening of institutional capacity for post-secondary education and training in developing countries lasted for more than 40 years. The support for EMU started in 1975 through fellowship programmes and through a succession of capacity-building programmes, mainly managed by NUFFIC: PUO, SV, MHO, NPT, and NICHE (see Tables 1-5 in Appendix IX). The Ministry for Development Cooperation of the Netherlands, as well as Dutch NGOs, such as the Eduardo Mondlane Foundation and Service across Borders (Dienst over de Grenzen: DOG) sent experts to Mozambique, some of them to EMU. In 1976, 25 experts were made available to the university, and they worked as individuals in a diversity of faculties, without any structured support. From 1985 onwards, the activities of new experts were integrated in interuniversity cooperation projects. These agreements were part of the Programme for University Development Cooperation (PUO), the Inter-institutional Cooperation Programme (SV), and the Joint Financing Programme for Cooperation in Higher Education (MHO), including the support for institution building at EMU (Juvane &Van Baren, 1996).

The Programme for University Development Cooperation - PUO and the Cooperation Links Programme - SV (1975-1992)

The *Programma Universitaire Ontwikkelingssamenwerking* – Programme for University Development Cooperation (PUO) – began in the 1960s in the Netherlands with the main objective of providing financial support for Dutch teachers working abroad. Its main component was the provision of technical assistance for the reinforcement of teaching effectiveness. Mozambique was added in 1975. The *Programma Samenwerkingsverbanden* – Cooperation Links Programme (SV) – was an institutional capacity-building programme focused on the promotion of interfaculty cooperation. The programme objectives included improvement of local capacity, joint curriculum review; acquisition of equipment, consumables, and vehicles; and postgraduate training. Both PUO and SV were initiatives that began at the faculty level and were supported financially by the Dutch Government. Both PUO and SV programmes had in total eight projects focused on institutional strengthening, amongst them the BUSCEP and STADEP projects (see Table 2, Appendix XX).

The Basic University Sciences Course Experimental Project (BUSCEP) *(1985-2001)* implementation started in 1985 and was aimed at strengthening the background of students entering the university in science-based programmes. Accordingly, a total of 280 first-year students (80 agronomy students in 1985 and 200 engineering students in 1987) were enrolled in the course in order to remedy their deficiencies, to improve their knowledge of basic concepts, and to acquire adequate study skills in the fields of mathematics, biology, chemistry, and physics. The project also involved remedial-teaching aspects of the courses in mathematics and science, and developing course material and syllabi adjusted to the local environment and culture, including lab

instructions, teaching notes, and student assignments (UEM, 1985). In addition, the project support included equipping laboratories, acquisition of material resources – equipment, stationery, books and consumables – as well as student scholarships.

The project's focus was on the improvement of secondary school finalists in science and mathematics and thereby increasing the number of students capable of successfully completing science-based professional studies at the university level, in order to provide trained and qualified personnel for Mozambique in the fields of engineering, agriculture, medical, and veterinary sciences, and other science-based professions, thus satisfying the great demand for manpower in those fields.

The Staff Development Project (STADEP) *(1989-1991)* was implemented at Eduardo Mondlane University in collaboration with the University of Groningen from the Netherlands. The project aimed at strengthening the pedagogic and didactic skills of university lecturers, based on the assumption that these newly recruited lecturers were recent graduates and lacked pedagogic training to begin their academic careers (Mandlate, 2003, p.1).

In this context, the very first training initiative for teachers at EMU occurred in the first years after Independence (in 1975), when activities to upgrade university lecturers' pedagogic qualifications were carried out by the Centre for Psycho-pedagogic Orientation. A second initiative was launched in the beginning of 1980s, when the university offered courses in university pedagogy, with a focus on teaching methods (Mandlate, 2003, p. 1).

The project had three phases: the pilot phase, the expansion phase, and the institutionalisation phase. The pilot phase began in July 1989 in the Faculties of Engineering and Natural Sciences. The project's objectives in this phase were: (i) to support the Faculties of Engineering and Sciences in developing, providing, and evaluating their methods of instruction, and (ii) to acquire experience within EMU in the organisation of pedagogic training activities in the faculties. The expansion phase lasted from 1992 to 1995 and involved more faculties with the following objectives: (i) the recruitment and training of more Mozambican staff members who would teach and support individual lecturers and contribute to the development of the curriculum and intervene in educational matters of their faculties; and (ii) the institutionalisation of staff development activities. The last phase, the institutionalisation phase, lasted from 1996 to 2001, and had the following objectives: (i) setting of human, material, and institutional conditions for the establishment of the Educational Centre; (ii) consolidation and expansion of the programme of professional educational training courses; and (iii) assistance for the development and assessment of education at the faculty and/or department level in the fields of curriculum and staff appraisal (Mandlate, 2003, p. 3).

The end of the STADEP project followed the emergence of a new unit attached to the Faculty of Education, 'an independent scientific unit specialised in education and the development of educational materials' (Mandlate, 2003, p.3). This new unit, called the Centre for Academic Development (CDA), became responsible for teacher training at the university.

The Joint Financing Programme for Cooperation in Higher Education - MHO (1993-2004)

The Dutch Co-financing Programme for Cooperation in Higher Education (MHO) was part of the Netherlands' bilateral aid programme set up in 1993 to support the development of developing countries, including Mozambique, by generating technical and professional human resources, supporting higher education, research, and extension activities (Ministry of Foreign Affairs of the Netherlands, 2012). The programme aimed to help developing countries develop, strengthen, and improve the general functioning of their higher education institutions and to contribute to human resources development (Boeren, 2000, p.4). The first phase of the programme lasted from 1993 to 1998. The second phase lasted from 1999 to 2004 (NUFFIC, 2004).

The MHO programme was initially launched at EMU to implement the university strategic plan 'Present and Perspectives' conceived in 1991 (Juvane & Van Baren, 1996, pp.4, 5). Its goal was to (i) stabilise the number of academic, technical, and administrative staff; (ii) improve EMU's ability to respond to the needs of the society in terms of the quality of its graduates, applied research, and extension and consultancy services; (iii) increase the internal efficiency of the university as well as the efficiency of the teaching-learning process; (iv) boost the development of those faculties strategically relevant for the socioeconomic development; (v) improve internal management and the functioning of the service units; and (vi) promote a sustainable and balanced development of the university (Juvane & Van Baren, 1996, pp. 5, 6).

The characteristic feature of the MHO programme was the mobilisation of Dutch expertise through the establishment of long-term, inter-institutional linkages between one institution in a developing country and several Dutch institutions. The purpose of the linkages was to support institution building and the transfer of knowledge (EP-NUFFIC, 2017).

In the second phase of the MHO programme *(1999-2004)*, two new academic projects were integrated and implemented, namely MODELS and MOZTEP (see Table 3, Appendix IX). Both projects were implemented at the Faculty of Education and were aimed at building capacity in the field of higher education.

The Mozambican Development of Educational Leadership and Services Project - MODELS *(2001-2004)* was a Dutch-funded initiative that supported the Faculty of Education in partnership with the University of Twente in the design and implementation of the Master's Programme in Education Science (Curriculum and Instruction Development, and Educational Administration and Management).

Furthermore, under this project, the Centre for Academic Development developed activities in ICT-Education and problem-based learning in higher education and educational research. The project also included short specialist missions, staff training at the master's and PhD levels, student research supervision, and curriculum development. Additional components of the project included the development of infrastructure, equipment (computers and accessories), and literature (CIS, 2002).

The Mozambique Teacher Education Project - MOZTEP *(2001-2004)* was a Dutch funded initiative initiated to support the design and implementation of the Master's Course in Science and Mathematics Education, and extended to the Faculty of Education as a whole. Accordingly, at least fifteen mid-career educational professionals benefited from this master's programme initially set up to provide in-service teacher education for the Mozambican secondary education system (Centre for International Cooperation, 2004). The project also contributed to the development of models for teachers' professional development, as well as educational options in the undergraduate programmes in the Faculty of Sciences (physics, chemistry, and mathematics) and educational research. Short specialist missions, staff training, student supervision, and curriculum development were also part of the project's framework.

The Netherlands Programme for the Institutional Strengthening of Post-Secondary Education and Training Capacity - NPT (2002-2013)

The NPT was a 'development cooperation programme that aimed to increase the capacity of bilateral partner countries in meeting their own needs for training and human resources' through cooperation projects between Dutch expert institutions and Southern African partner organisations (Gondwe, 2014, p. 4).

NPT interventions comprised an integrated capacity development approach at three levels: the organisational level, the institutional level, and the individual level. At the organisational level, the programme aimed at organisation building, that is, to strengthen the organisation or units of the organisation, including its organisational structure and culture, the institutional environment, and the physical structures and hardware. At the institutional level, the aim was to strengthen the capacities of governance systems and institutions relevant to the participating organisation or units of the organisation. At the individual level, the NPT aimed to strengthen the

professional capacities of selected individuals in the organisation through training at both degree and non-degree levels (the certificate, diploma, bachelor's, master's and PhD levels). Internships, exposure visits, workshops, and seminars at the national, regional and international levels were also part of the actions to promote staff development (Gondwe, 2014).

The NPT clearly addressed the challenges of the Higher Education Strategic Plan by supporting, among other things, teacher training, good governance, the HE institutions in the centre and north of Mozambique, the establishment of new polytechnics, and an HIV/AIDS project (Matos & Baren, 2007) (see Table 4, Appendix XX).

The Netherlands Initiative for Capacity Development in Higher Education – NICHE (2009-2012/14)

The Netherlands Initiative for Capacity Development in Higher Education programme (NICHE) was one of the Dutch support instruments managed by NUFFIC. NICHE was a demand-oriented and needs-based programme that has been implemented in Mozambique in order to: (i) facilitate the on-going higher education reforms, in terms of policies and practices, at the national and local levels; (ii) help improve efficiency and accelerate progress in achieving post-secondary education goals; (iii) help improve the quality of performance and the competencies of professionals, at the national and local level, and the quality of teaching and research capacity; and (iv) contribute to 'linking and learning' activities between post-secondary educational institutions in Mozambique and abroad (NUFFIC, 2014).

The programme was implemented in two phases. The first phase lasted from 2009 to 2013, and the second phase lasted from 2014 to 2017. In the first phase, the programme targeted five different sectors in Mozambique, including higher education, health, water and sanitation, growth and equity, and governance. Concerning the higher education sector specifically, the focus was on higher education governing structures, including management and sector co-ordination capacities; strengthening of TVET (Technical-Vocational Education and Training); and alignment with the labour market (NUFFIC, 2014).

NICHE wanted to make a significant contribution by addressing the training needs of women to participate actively in the development of the country, based on the assumption that the reduction of gender disparities was an important stimulus for poverty alleviation. Therefore, NICHE paid special attention to the gender dimension within post-secondary education and training, and to the link with the labour market (NUFFIC, 2010).

At Eduardo Mondlane University, the NICHE programme had seven projects with different faculties and schools, namely the *Escola Superior de Negócios e Empreendedorismo de Chibuto*[53] (ESNEC), the *Escola Superior de Desenvolvimento Rural*[54] (ESUDER), Faculty of Education, Faculty of Sciences, and Faculty of Engineering (see Table 5, Appendix XX) (EP-NUFFIC, 2017).

NICHE supported EMU through the implementation of academic projects (staff training), and other small-scale initiatives (mini-grants) aiming to improve local capacity, as well as the quality of the teaching and therefore the quality of graduates at EMU. In the scope of the NICHE programme, the Faculty of Education developed three capacity-building projects. The first project (NICHE-MOZ-029) was meant to support the introduction of a new postgraduate course in the field of psychology. The second project (NICHE-MOZ-030) aimed to introduce participative teaching strategies. The third project (NICHE-MOZ-032-089) was focused on participative learning methods.

NICHE-MOZ-029 (2010-2011) was implemented in the Faculty of Education. The project supported the design and implementation of the master's programme in Family and Community Therapy in the Department of Psychology. The Faculty of Education developed the project in collaboration with the *Universidade Autónoma de Lisboa* and the University of Pretoria. The master's programme in Family and Community Psychotherapy aimed to: (i) respond to the demands of psychologists who encounter family and community problems in their work, (ii) enable psychologists to apply theories in the Mozambican context where traditional values dominate, (iii) improve the psychotherapy skills of the staff, and (iv) create a spirit of cooperation among partners, enabling faculty staff to exchange competencies through lectures and research projects (NUFFIC, 2014).

NICHE-MOZ-030 (2011), also implemented at the Faculty of Education, was about the introduction of student-centred teaching strategies. The project supported the introduction of the problem-based learning approach in the curriculum of psychology in partnership with Maastricht University. The project's focus included the training of teachers of the Department of Psychology to employ the PBL methodology in their classes and produce teaching material based on the PBL philosophy. Moreover, technical support was provided in the design of a PBL-based curriculum. The project outline was the collaborative work of the Faculty of Education of Eduardo Mondlane University (EMU) and the School of Health Sciences of the University of Venda, in South Africa. The project was integrated within the framework of the academic reform that the university was carrying out, aiming to improve the accessibility and quality of the education offered at EMU (NUFFIC, 2014a).

[53] Higher School of Business and Entrepreneurship of Chibuto

[54] Higher School of Rural Development

NICHE-MOZ-032-89 (2011-2015) supported the introduction of student-centred learning methods at EMU. The project was hosted in the Faculty of Education and implemented in partnership with Maastricht University, in the Netherlands. The NICHE-032 project's aim was to strengthen the pedagogic and organisational capacity within EMU to support innovative teaching. This implied setting up training sessions involving staff from CDA (Faculty of Education) and focal points from other faculties and schools in participative teaching methods (NUFFIC, 2010).

The project's overall objective was 'to improve the teaching capacity of EMU staff so that EMU graduates were better equipped to contribute to the development of higher education and the country' (NUFFIC, 2010, p.7). The NICHE project matched EMU effort to introduce participative learning methods, which were gender sensitive and oriented to the needs of the labour market and Mozambican society (NUFFIC, 2010, p.10). The project's specific objectives included: i) strengthening pedagogic and organisational capacity within EMU (Faculty of Education and other faculties and schools); ii) implementing participative methods in all schools and faculties of EMU; iii) including a gender perspective in the whole capacity-building process; and iv) increasing graduates' competencies to fulfil the expectations of the labour market (NUFFIC, 2010, p.7). The implementation of the project NICHE-032-089 included a component on teacher training in participative learning methodologies, specifically problem-based learning (PBL) and literature acquisition.

Whereas the first and second projects in terms of scope were small-scale projects targeting one department within the faculty, the third project was broader in the sense that it not only addressed the Faculty of Education but other faculties of EMU as well as it intended to engage all academic units. All three projects were integrated in the first phase of the NICHE programme that lasted from 2009 to 2013. But it ended there, after 38 years of continuous support, as the Netherlands no longer regarded Mozambique as a target country for this type of development cooperation. In those 38 years, the Netherlands had become one of the major providers of assistance to EMU, and Mozambique had become the most important country in Africa for Dutch development assistance for post-secondary education (Boeren et al., 2014).

The Italian Agency for Development Cooperation (From 1978 Onwards)

The cooperation between Italy and Mozambique started in the late 1970s. The support provided by Italy to the education sector in Mozambique was materialised through bilateral programmes and Italy's contribution to the Common Fund for Education (Education Sector Support Fund – FASE), which accounts for 13% of public spending on education and channels, more than 70% of international financial aid (*Agência Italiana de Cooperação para o Desenvolvimento*, 2017; see also: https://www.globalpartnership.org/).

The Italian Agency for Development Cooperation's support for the education sector emphasises the promotion of access to better employment opportunities based on two axes: i) Technical-Vocational Education (Programme Support to the Technical-Vocational and Vocational Education System - PRETEP), and ii) higher education (see Table 6, Appendix XX). In this context, synergies with the employment sector are promoted through the involvement of Italian companies based locally as well as by activating innovative forms of partnership with the private sector (*Agência Italiana de Cooperação para o Desenvolvimento*, 2017). Since 1978, within the scope of the cooperation agreement, the Italian Agency for Development Cooperation has developed a range of actions to improve the quality of the services of the university, the services to teachers, and the services to students, based on the assumption that quality services are also important for the quality of the university.

According to the representative of the Italian agency development cooperation, the first component of the Italian Agency for Development Cooperation programme focused on different units: the Central Services, the CDA, the Quality Office, the Pedagogic Directorate, the Eduardo Mondlane University Informatics Centre (CIUEM), and the Scientific Directorate. The CDA was responsible for offering pedagogic training courses for teachers in all higher education institutions. The Italian Agency for Development Cooperation funds the CDA, which had been inactive for many years. Accordingly, the centre has developed new manuals on scientific research, students' evaluation, training, and course preparation. Since the Quality Office is responsible for the assessment of the courses, the support of the Italian Agency for Development Cooperation involves the training of staff from core faculties in quality evaluation. The support given to the Pedagogic Directorate includes the strengthening of its capacity to supervise the activities concerning course assessments, and the designing of programmes addressing evaluation issues and conceiving improvement plans. The CIUEM has received financial support to increase the number of internet points, the strengthening of internal computer networks and websites, as well as the quality of the network (Programme Officer).

Systematic support has been given to the Scientific Directorate to enable its restructuring and to strengthen the Department of Project Support, which deals with the internationalisation of the university, research funds, and training opportunities abroad for teachers, scholarships, and teacher-student exchange. Moreover, support is being given for the training of the administrative staff in administrative management and document management. The Italian Agency for Development Cooperation revitalised the system of dissemination of scientific information by supporting the university scientific magazine and supported a study on accessibility to increase the accessibility to the university for people with disabilities (Programme Officer).

The second component of the programme involved supporting research capacities through two kinds of interventions. Firstly, strengthening laboratory capacity by integrating science laboratories so as to carry out analyses, including those sent abroad. It included the functioning of networked laboratories to optimise resources and avoid duplication of efforts. Secondly, the Italian Agency for Development Cooperation, in collaboration with businesses and Italian universities, has created a fund for financing programmes in the field of applied environmental research at EMU. In that regard, a project was launched to support EMU in becoming a leading university in the SADC region in the application of methods of control and planning of environmental resources. This project was coordinated by the University of Rome and implemented in collaboration with the Department of Biology of the Faculty of Sciences, including the Museum of Natural History, the Ministry of Land and Rural Development, and the Ministry of Science and Technology, Higher and Technical Vocational Education (MCTESTP). The project's goal was to create a Centre for Environmental Higher Studies led by EMU, which integrates all other institutions that deal with environmental issues in Mozambique. The role of the university would include the transfer of innovative technology and training (Programme Officer).

The relationship between the Italian Agency for Development Cooperation and the Centre for Academic Development (CDA) was established through the Faculty of Education (FACED). FACED received a financial provision to support the activities being developed by the CDA. Initially, the cooperation began under the leadership of a former dean of FACED, but recently the coordination of this partnership has been transferred to the Cooperation Office and the Pedagogic Directorate at EMU.

Since 2012, the CDA integrated EMU's Support Programme for Academic Reform, Technological Innovation, and Scientific Research. This programme initiated in 2012 was part of the operationalisation of the Strategic Plan of EMU (PE-UEM), which supports the implementation of the Reform of the Organisation Order of Higher Education (ROES) (UEM, 2012a). The programme objectives were defined as the following: (i) to promote the participation of EMU's critical mass in the definition, implementation, and monitoring of the country's development plans; and (ii) to increase the relevance of EMU graduates, enabling them to employ their skills and expertise to develop Mozambique socially and economically. Accordingly, the expectations concerning the role of the CDA include the training of teachers in participatory didactic methodologies, research, and scientific dissemination, as appropriate in the Mozambican context.

In the context of supporting quality teaching, the programme has funded research aimed at developing participatory pedagogic models focused on students and adapted to the local context. The programme has also supported the training of teachers in didactics, research, and scientific methodologies (UEM, 2012a). The summary of the projects

supported by the Italian Agency for Development Cooperation can be seen in the Table 7 (Appendix XX).

The Swedish International Development Cooperation Agency - SIDA (From 1978 onwards)

Sweden established bilateral cooperation with Mozambique under the coordination of the Swedish International Development Cooperation Agency (SIDA), whose mission is to implement the Swedish Policy for Global Development (PGU) (SIDA, 2017). For the Sweden Embassy representative, SIDA has also established development cooperation for research at the global, regional, and local level (Sida Programme Officer).

Swedish collaboration with EMU began in 1978 through SIDA's Department for Research Cooperation (SIDA/SAREC). The support entailed the development of indigenous research capacity, as well as institutional capacity (Svensson et al. 2003). Since 1978, over a period of 38 years, Sweden has provided EMU with an amount in excess of SEK 700 million, and currently that would be the equivalent of EUR 70 million (Kruse et al., 2017, p.18).

In the beginning, the objective of the research cooperation programme was to strengthen the institutions' capacity to conduct research through individual research projects and training of researchers abroad. From the early 1990s onwards, the cooperation has been broadened to include institutional and research capacity building at Eduardo Mondlane University (Kruse et al., 2017). Therefore, a Swedish Embassy representative stated that research, and later also innovation, were at the centre of SIDA's focus, since Sweden's development philosophy is that research is needed for the development of a country and that countries with fewer human resources also need to develop capacity for research to drive development, to influence policy, and to influence innovation (Sida Programme Officer).

SIDA's support for EMU was first directed through the African Studies Centre. In the beginning of the cooperation, SIDA's support was focused on only a few institutions within EMU, and funding for research was made available and institutionalised,[55] since the capacity to do research was very low and not that many Mozambicans actually had a higher education degree. As a result, the focus became to train people at the master's and PhD levels to form a critical mass of researchers that could develop the institution and the research environment (Sida Programme Officer).

The support for universitywide research infrastructure covers Information and Communication Technology (ICT), and library and management systems. Additional

[55] The university created a research fund with the exclusive financial support of the Swedish Government. The Government of Mozambique initiated its financial support for this fund in 1993.

support was given to EMU's research policy-making processes initiated in 1978. From 2006-2009, the collaboration between SIDA and EMU has focused on the strengthening of the university's national role in training academic staff at master's and doctoral levels for the entire higher education system (Boeren et al., 2006).

The main objective of the agreement that lasted from March 2011 to June 2017 has been to '*strengthen national research capacity so that Mozambique has the ability to be better able to plan, produce, and use research in the fight against poverty*' (Kruse et al., 2017, p. 24). In line with Mozambique's own National Strategy for Science, Technology and Innovation (MOSTIS), the programme has put more emphasis on applied sciences, such as sustainable agricultural production, livestock production, sustainable technological development, environment and climate, and health/education, rather than on social sciences and the humanities. The support included collaborative research and postgraduate (doctoral) training, local postgraduate research programmes, improvement of the research environment, strengthening research management capacity, and strengthening library services (Kruse et al., 2017)

The current SIDA Research Cooperation approach is focused on institutional development through thematic capacity building programmes and more institution-wide sub-programmes. The current agreement includes 11 thematic sub-programmes in the areas of health, agriculture and technology, history-anthropology, and basic-sciences. The faculties have identified staff to be trained at PhD and master's levels, either in Sweden or in South Africa. SIDA is also supporting the establishment of four master's programmes, mainly in the field of technology as a basis to develop a local research PhD training programme, which includes food processing, wood processing, archaeology and natural resources (Sida Programme Officer).

Other components of SIDA's support includes the library capacity, specifically electronic resources in the form of electronic books and journals 30,000 in total. This open resource is available countrywide, but the EMU library manages it. To do research, access to the literature is very important. This initiative integrates a partnership between EMU and research institutions, education institutions, and the central bank, which eventually should take over the financing of these resources (Sida Programme Officer).

SIDA also supports universitywide funds through the research fund, the postgraduate fund, and the facility fund. The facility fund is a competitive fund available for faculties, centres and schools for the purchase of equipment and development of lab facilities.

The programme is now mainly focused on the Faculty of Sciences, since the programme's focus is on natural sciences and technology (see Table 8, Appendix XX). Nevertheless, there are other units that benefit from the support of the programme,

namely the Faculty of Engineering, the Faculty of Education around Mathematics and Statistics, the Faculty of Arts and Social Sciences, the Faculty of Medicine, the Faculty of Engineering, the Faculty of Agronomy and Forestry Engineering, the Central Library, the Scientific Directorate, and the Cooperation Office (Kruse et al., 2017, p.111).

The Faculty of Engineering (FENG) has benefited from the SIDA-SAREC programme from three projects. The first project concerned the technology of processing natural resources, and a second project was to introduce a master's programme in Mineral Resources Management. The third project that also involved the Faculty of Sciences is on 'integrated water resources management' (Kruse et al., 2017, p.111). The programme also focused on teacher training at the doctoral level, and staff from the Departments of Civil Engineering, Chemical Engineering, and Mechanical Engineering were involved in postgraduate training. The programme has supported the following on-going projects: N-Pro Energy (Chemical and Mechanical Engineering) and Tec-Pro Mechanics (Mechanical and Civil Engineering).

Within the framework of the SIDA Programme, the Faculty of Education developed a programme called 'Development of Research Culture and Capacity in Education' (Kruse et al., 2017). The focus of this programme was building research capacity by providing postgraduate scholarships for the teaching staff. The programme provided scholarships for teachers to be trained at the postgraduate level and therefore contributed to the development of a culture of research within the Faculty of Education. Despite the fact that the SIDA Programme's implementation at EMU had begun already in 1978, it was only in 2006 that the Faculty of Education has directly benefited from the programme.

Part of the staff employed at the CDA are working on getting their doctorate degree through a scholarship financed by the SIDA Programme in the context of the programme's effort to strengthen the research capacity within EMU.

The Faculty of Sciences had six sub-programmes within the SIDA Programme in the field of water, energy, education, health, environment, and climate. They focused mainly on water resource management; energy science and technology; mathematics, statistics, and informatics; biological and oceanographic research; medical radiation physics; and environment and climate research. Furthermore, the faculty has established and coordinated three new master's study programmes in the field of chemistry and processing of local resources, food technology, and sustainable management of coastal and marine habitats (Kruse et al., 2017, p.111).

The Belgian Desafio[56] Programme - VLIRUOS (From 2008 onwards)

Desafio is a Belgian Government-funded initiative that has been implemented at Eduardo Mondlane University in partnership with four Flemish universities, under the Institutional University Cooperation (IUC) of the Flemish Inter-University Council – University Development Cooperation (VLIRUOS). It is, according to a participant from EMU's Cooperation Office, called '*Programme for the Development of Reproductive Health, HIV/AIDS, and Family Affairs through Interdisciplinary Multidisciplinary Research*' (Programme Officer).

In the searching for answers to global and local challenges, VLIRUOS supports partnerships between universities and university colleges, both in Flanders and Wallonia. VLIRUOS also stimulates cooperative projects amongst academic staff (professors, researchers, and lecturers) and awards grants to students and professionals, as well as support to strengthen higher education in Wallonia and the development-relevant internationalisation of higher education in Flanders (VLIRUOS, 2020).

Through the IUC, the VLIRUOS facilitated a twelve-year inter-university partnership programme aimed at empowering the local university in order to fully accomplish its role as developmental actor in society (VLIRUOS, 2017).

Desafio was a ten-year programme that aimed to develop institutional capacity in three different domains: graduate programmes, scientific research, and university extension, using a multidisciplinary approach, and covering all aspects of reproductive health: medical and legal, social and cultural.

This Institutional University Cooperation Programme is characterised by: (i) long-term collaboration (12 years) geared towards institutional development; (ii) financing and facilitating cooperation through partnership, (iii) matching the priorities of the partner university with the Flemish counterparts' interests and expertise, (iv) a coherent set of interventions/synergetic projects aligned with the partner university's strategic plan, and (v) building capacity, such as academic capacity (MSc/PhD education, research, publishing), internal service delivery (ICT, library), external service delivery (services to society), and managerial capacity (planning, human resources, international relations).

The programme includes scholarships for teaching staff at postgraduate levels and scholarships for students. The programme promotes scholarships for women and encourages research on 'Sexual and Reproductive Health' (UEM, 2015).

[56] Challenge Programme.

The *Desafio* Programme was initially meant to be a developmental programme on reproductive health, HIV/AIDS, and family matters to be implemented through inter-university multidisciplinary research. Therefore, its academic objective was to 'strengthen EMU as developmental actor in Mozambican society in the area of reproductive health and HIV/AIDS'. Its developmental objective included 'the improvement of reproductive health in society and contribution to the national fight against HIV/AIDS' (Van Baren &Mosca, 2012, p. 13).

With this objective, the various projects came to target human rights, social rights and human protection, gender and family health, reproductive health, HIV/AIDS/STI prevention and treatment, capacity building, and bio-statistics and modelling. The programme has been implemented by EMU staff in collaboration with academic staff from Flemish universities (Van Baren &Mosca, 2012).

Later, the programme expanded to seven projects within EMU (see Table 11 in Appendix XX), involving the following faculties: Faculty of Law, Faculty of Arts and Social Sciences, Faculty of Medicine, Scientific Directorate, and Faculty of Sciences (Van Baren & Mosca, 2012).

Study participants from the Centre for Academic Development claimed that the *Desafio* Programme has also supported CDA activities by funding the implementation of the '*Continuous Teachers Training Plan*' (CDA Staff 1). Another participant from the Directorate for the Coordination of Higher Education (DICES) from the then Ministry of Education and Culture claimed that the '*CDA was expected to offer this training for all higher education teaching staff in response to the Higher Education Teacher Training Strategy stated in the Higher Education Strategic Plan (2012-2020)*' (DICES Representative).

Although the project was not initially extended to the Faculty of Education, CDA staff coordinated training activity so as to improve the academic qualifications of the teaching staff and boost their research skills at the Faculty of Education.

The Norwegian Programme for Development, Research and Education - NUFU (From 2007 onwards)

The Norwegian Programme for Development, Research, and Education (NUFU) supported the development of sustainable capacity and competence for research and research-based higher education, with a focus on national development and poverty reduction. Moreover, the programme was set up so as to develop academic collaboration in Southern Africa and between Southern Africa and Europe.

The partnership-based academic cooperation between Norwegian academic institutions and academic institutions in developing countries prioritises institutions in sub-Saharan

Africa. This academic cooperation includes joint research, training of researchers for master's and PhD degrees, development of new graduate programmes, and training of technical and administrative staff, whilst taking into account the needs and priorities of the institutions in developing countries. The principal goal of the NUFU programme is to contribute to building competence in research and higher education in developing countries, with a stress on equal partnership between institutions for their mutual benefit (Steen, 2003, p. 115).

The objectives of the NUFU programme include the following: (i) to contribute to the development of institutions in Southern Africa; (ii) to produce knowledge in areas deemed relevant to goals and objectives at the institutional and national level; (iii) to develop master's and PhD programmes in Southern Africa; (iv) to promote gender equity in research and academic cooperation; (v) to establish sustainable environments for research and research-based teaching; and (vi) to establish regional academic networks within relevant discipline areas (Norwegian Centre for International Cooperation in Higher Education – SIU, 2011).

The support for EMU included the establishment of postgraduate study programmes, namely the master's programme in petroleum geoscience, and the establishment of a geophysical research centre. Between 2007 and 2012, NUFU funded four projects that were implemented at Eduardo Mondlane University (see Table 10 in Appendix XX). In the Faculty of Sciences, two projects were implemented. The first was entitled 'Ore Forming Potential of the *Tete* Complex and Sustainable Management of Mineral Deposits in Mozambique', with the aim of developing local human capital capable of studying, characterising, and exploiting the country's mineral resources in a sustainable manner. The second project was entitled 'Small Scale Concentrating Solar Energy Systems', which aimed to build capacity in the field of solar energy in African universities in general. With this goal in mind, the project was implemented in partnership with three other universities, namely the Norwegian University of Science and Technology, the Addis Ababa University (Ethiopia), and Makerere University (Uganda) (SIU, 2013, pp. 23, 24).

The South Africa-Norway Tertiary Education Development Programme - SANTED (2000-2009)

The South Africa-Norway Tertiary Education Development Programme (SANTED) was a tertiary education development programme also funded by Norway and was implemented in two phases: the first phase lasted from 2001-2005 and the second from 2005-2009. The programme supported three areas, specifically access and retention; capacity building in the field of finance, administration, and human resources management; and institutional collaboration within the SADC region (Hansen, Africa, & Boeren, 2005).

The SANTED Programme served as a platform for inter-institutional collaboration and networking among Southern African institutions, as well as institutions in the Southern Africa Development Community (SADC). The SADC sub-regional component aimed to establish and strengthen ties between higher education institutions within the Southern African Development Community countries, and it included: (i) co-operating in the design of joint academic programmes; (ii) establishing bilateral and multilateral links between and among institutions for joint or split-site teaching and for other academic activities where appropriate; (iii) collaborating in the production of teaching and learning materials, including textbooks, computer software, etc.; and (iv) promoting student and staff exchange programmes through bilateral and multilateral agreements (Hansen et al., 2005).

Under the SANTED Programme, the NEW (Namibia–Eduardo Mondlane–Wits) Institutional Co-operation Project was implemented, aiming to (i) build and strengthen the relationships of the University of the Witwatersrand (Wits) with two partner institutions in Namibia (Unam) and Mozambique (EMU) through a series of workshops and exchange visits, and (ii) develop a detailed business plan for academic collaboration between the three partner institutions (Hansen et al., 2005).

Summary of interventions and preliminary assessment

Across decades, several programmes were implemented at EMU with support of different foreign donors, such as the Netherlands, Italy, Sweden, Belgium and Norway, within the context of university revitalisation and capacity building. Some programmes from the very same funding source were implemented successively under different designations and specific purposes and scope, which is the case of NUFFIC's programmes - PUO, SV, MHO, NPT, and NICHE. As claimed by the study participants, the implementation of programmes such as PUO, SV, Italian Cooperation and SIDA, through small projects in the late 1970s, was critical to define and change the teaching and learning environment at EMU, since the interventions were focused on different aspects, which included students' knowledge and skills, teaching skills and instructional methods, curriculum design, staff development and training, lab assembly, research infrastructure, library collections, internet access, equipment and consumables.

In the 1990s, programmes such as MHO, NPT, NICHE, VLIRUOS, NUFU, and SANTED addressed the University Strategic Plan and its goals whose aim was the sustainability and balanced development of the university through capacity building. While the capacity building process was simultaneously accompanied by the integration of foreign experts to reinforce the teaching staff, the university invested, with the support of the cooperation partners, in the massive training of staff abroad at postgraduate level. However, according to many participants in the research, the

increasing demand for quality education and the provision of new courses, and the lack of stability of the staff because of retirement, death, transfers, departures and other circumstances overshadow the many recent achievements, and may jeopardise the efforts employed, and constrain the university's ability to retain its members and fulfil its mission.

4.1.2.2.5. Partnerships

EMU's attempt to carry out its mission, resulted in a long tradition of establishing partnerships with businesses, countries, other HEIs, NGOs, and other entities and institutions through bilateral/multilateral cooperation agreements. The partnerships cover a large spectrum of teaching and learning, research, extension, human resources, finance and management, and transversal issues. The university's efforts focus on strengthening national, regional, and international cooperation, as well as maximising and harnessing the potential of partnership networks, so that the university can actively intervene in major local, national, regional, and international issues related to innovation and knowledge transfer.

The Arab Bank for Economic Development in Africa - BADEA (2000s)

BADEA is an independent international financial institution owned by the League of Arab States (LAS) and created for two purposes: for strengthening economic, financial, and technical cooperation between the Arab and African regions, and for the embodiment of Arab-African solidarity on foundations of equality and friendship (The Arab Bank for Economic Development in Africa, 2017).

The partnership established between the BADEA and EMU has included financial support that enabled the construction of new infrastructures within EMU's main campus and the improvement of the broadband internet connection within the campus. The study participants stated that the new infrastructure '*includes the new Rectorship's building, the Pedagogic Complex I, and the construction of the buildings of the Faculty of Sciences, Department of Mathematics, and Department of Biology*' (Central Services Manager, Former University Leader 4). Through this partnership, it was possible to finance the physical expansion of the university.

Moreover, '*EMU was able to increase the internet capacity from 30mpg to 300mpg with the support of Arab countries such as Kuwait*' (Former University Leader 3). This support joined the range of initiatives carried out to connect the various campuses of the university and the university with the outside world.

The Climate Change Adaptation in Africa Programme – CCAA (2010-2012)

The Climate Change Adaptation in Africa (CCAA) programme was a joint initiative of the United Kingdom's Department for International Development (DFID) and Canada's International Development Research Centre (IDRC) that supported research and capacity building to reduce climate change vulnerability in Africa. The initiative was launched in 2006, aiming to establish a self-sustained African body of expertise on adaptation that responds to the needs defined by African communities, decision-makers, and organisations based on the assumption that climate change threatens the developmental gains Africa has made over the last half century (International Development Research Centre – IDRC, 2017).

Mozambique is one of the countries that has benefited from the programme, and, at EMU, the Faculty of Education was actively involved in the implementation of the programme in partnership with the International Development Research Centre (IDRC) and the University of York (Canada). The programme coordinator from the Faculty of Education stated that the programme's objective was to strengthen the capacity of civil society to influence water sector governance with regard to climate change adaptation in three African cities, namely Maputo, Durban, and Nairobi. In Africa, the programme involved three universities, one in each city, specifically the University of Nairobi, in Nairobi, Kenya, Eduardo Mondlane University, in Maputo, Mozambique, and the University of KwaZulu-Natal, in Durban, South Africa (Programme Coordinator).

At the Faculty of Education, the CCAA programme framework included research activities, and internships for undergraduate students attending the Environmental Education course.

The bilateral and multilateral cooperation the university engaged in through the establishment of partnerships with local and foreign agencies, businesses, organisations and other entities, was the mechanism the university used to interact with its surroundings and the outside world in order to become relevant for the society and develop. Partnerships were established with financing institution (BADEA), and development agencies (DFID and IDRC), enabling the university to build learning facilities (faculty buildings, pedagogic complex) on the main campus, administrative services (Rectorship building), as well as connectivity (internet), and to raise awareness and take actions towards the climate change.

Moreover, the investment in technological infrastructure such as computer labs and internet allowed EMU to play a prominent role in the local context with provision of broadband and wireless internet services through the installation of local servers. This also enabled the enhancement of the teaching and learning process using technology, and stimulated the offer of distance and blended learning. The use of virtual learning

platforms was a qualitative leap with the integration of ICTs and the popularisation of online teaching through the use of digital technologies such as the computer, the tablet, and the mobile phone.

4.1.2.2.6. Events

Scientific events were also considered development initiatives in the sense that they constituted knowledge dissemination platforms that not only influenced educational practices but also built and strengthened the research culture and knowledge production on various issues concerning the country in general. Events at the university include academic related activities aiming at linking theory and practice (extension activities) enabling knowledge transfer to local communities through students' work, as well as scientific related activities aiming at sharing ongoing or completed research amongst the scientific community. Those include January Activities (AJAs) and July Activities (AJUs), scientific journeys, seminars, conferences, and, symposiums.

In relation to events, scientific and pedagogic practices of various nature (conferences, seminars, symposiums, compulsory practical activities - AJAs and AJUs) boosted the consolidation of a critical mass amongst the academic staff and students, influencing the quality of the teaching and performance of the graduates.

Although teaching, research and university extension have been boosted over more than four decades through the recalled initiatives, a recent consultancy report (CIPES, 2021) shows that EMU needs to increase its research capacity, in qualitative and quantitative terms, as it was found that relatively few staff members have the ability or opportunity to carry out research that results in publications. Furthermore, university management and governance absorb the bulk of trained professors who could dedicate themselves to research.

It also points to the fact that the scientific profile of EMU is emerging as a result of the recent (in the last 10 years) introduction of master's and doctoral programmes. However, postgraduate training is not the core business of the university, nor is it financially supported by the university, which relies on student fees. Thus, although the university is developing socially relevant knowledge in specific areas through research centres, the critical mass of research-oriented academics is still a minority (CIPES, 2021).

For decades, EMU was a teaching university with encyclopaedic study programmes and focused on undergraduate teaching programmes towards which all public funding was directed, although there were a few self-funding postgraduate courses. These encyclopaedic programmes reflected a compartmentalised and static view of

knowledge. More recently, the university goal is to be transformed from a teaching university to a research university, as expressed in the Strategic Plan of EMU 2018-2028 (UEM, 2017). This claim is being materialised through the review and/or development of various regulatory and normative instruments, as well as new management unit - regulations of graduate courses (2013, 2020), curriculum framework for graduate courses (2020), investigation policy (2007), postgraduate school (2020) - leading to the materialisation of this desideratum, assuming that research is fostered by the development of postgraduate studies.

The long-term commitment towards the setting of research capacity increased the chances of EMU to become a research university as reflected in its current vision and mission.

On the other hand, the strengthening of human capacity through investment in postgraduate training in various disciplinary areas has allowed EMU to become a niche of recognised experts whose knowledge and skills are lent to the service of other higher education institutions within and outside the country, as well as the productive sector.

With regard to its organisational and operating structure, CIPES (2021) also states that a formal and informal organisation coexists in EMU, not always aligned or in harmony. This fact is evident in the organisational structure. Although the EMU organisational chart (UEM, 2014a) displays a clear institutional structure, the growth of parallel structures such as independent research centres or research centres under the auspices of the faculties demand a strategic harmonisation of the formal and informal organisation aligned with its new vision and mission as a research university.

In summary, it can be said that the PADev experiment of EMU found that major changes occurred in different domains and/or sectors that resulted from, or were linked to the implementation of specific interventions whether it was consortiums and networks, single projects, integrated programmes, funds, partnerships, and events.

There were three major recalled changes that occurred concerning the human resources and governance, specifically, the upgrading of academic qualifications, which includes teacher training at master's and PhD levels; the diversity amongst the teaching staff and experts concerning their nationality at the Faculty of Education and Faculty of Engineering; and the design of EMU's Strategic Development Plan (1999-2008) which resulted from the implementation of the Capacity Building Project. The investment in teachers' qualifications was performed by programmes such as SIDA, NPT, and NUFU as well as projects as MODELS, MOZADEP, and MOZTEP.

The provision of foreign experts and teaching staff that enabled the combination of foreign and local teaching staff and the enforcement of teaching capacity in the

Faculties of Education and Engineering was ensured by the following programmes and projects: MHO, SIDA, SANTED, CBP, STADEP, GTZ, Rocks Project, and EDIT Project.

From the perspective of the participants from the Faculty of Education, Engineering and Sciences, a range of interventions produced a significant impact and led to remarkable changes that took place in the pedagogic domain, human resources, infrastructure and governance. The most important ones were the MHO Programme, SIDA Programme, *Desafio* Programme, BUSCEP Project, NICHE Projects (NICHE-032, NICHE-30), FDI, and CCAA.

The changes in the pedagogic domain influenced by those interventions include the Introduction of postgraduate courses: MSc Programme in Food Technology (Faculty of Engineering), MSc Programme in Sciences of Education (Faculty of Education), MSc Programme in Chemistry and Processing of Local Resources, and MSc Programme in Management of Mineral Resources (Faculty of Sciences); the revitalisation of the Centre for Academic Development (CDA) that set a new working dynamic through regular offer of new psycho-pedagogic courses; introduction of propaedeutic courses in the field of sciences and engineering namely mathematics, geology, biology, physics, and chemistry (Faculty of Sciences, and Faculty of Engineering); introduction of student-centred learning approach at EMU (problem-based-learning); and the introduction of new undergraduate degrees: Honour's Degree in Psychology, Mozambican Sign Language, and Environmental Education (Faculty of Education).

Interventions that led to changes in the human resources sector regarding the setting of a centre for academic development responsible for in-service teacher training, mostly focused on psycho-pedagogic training, include the following projects: STADEP, NICHE-029, Niche-030, and Italian cooperation.

The Capacity Building Project, SIDA and *Desafio* Programmes promoted change in infrastructure, resulting in the expansion and modernisation of EMU's physical infrastructure and facilities (internet, library). The former also led to changes in governance related to the renewal of management and functioning structure of the university.

EMU's former leadership, as key actors in the decision-making processes were directly involved in the implementation of the initiatives. Among them are the Rectors Fernando Ganhão, Rui Baltazar, Narciso Matos, Brazão Mazula, Filipe Couto and Orlando Quilambo.

The data showed that there was a great influence of external interventions on the changes experienced in nearly all sectors of EMU. Foreign donor and cooperation

agencies' initiatives were mainly executed through capacity building programmes, foreign institutions' support through individual projects, as well as small initiatives promoted through partner institutions.

Overall, all six types of interventions, specifically consortiums and networks, single projects, integrated programmes, funds, partnerships, and scientific events, contributed in different ways to the growth of EMU. Some have contributed to the strengthening of the institution's academic and administrative capacity, including the increase in the quantity and quality of the academic staff, and therefore the quality of educational provision. Others have contributed to expanding the university infrastructure (physical, equipment), increasing the diversity of educational programmes, and increasing the opportunities for students and staff to participate in international exchanges and collaborative teaching and research projects.

To be specific, the contribution of *consortiums and networks* was directed to the improvement of higher education in order to connect and strengthen sub-Saharan African universities by funding literature, professional exchange, lab equipment and ICT development, and publication. These funds supported students and contributed to the improvement of the teaching and learning activities, including curriculum reinforcement, internships, equipment, and research. The *projects* supported various activities and investments, namely student training, scholarships for teachers, curriculum development, equipment acquisition, infrastructure building and maintenance, and literature, given the fact that *programmes* integrated several projects and had a broader contribution, all focused on institutional capacity building. These included strengthening the ties between regional HEIs (SADC) and institutional cooperation, knowledge production through development of research on specific themes (research cooperation), course development, and provision of quality services through professional capacity development (performance and competence). *Partnerships* were established, aimed at building institutional capacity. This included teaching and learning, research, extension, human resources, and connectivity (internet connection). *Events* entailed organised scientific and outreach meetings that functioned as platforms for sharing and disseminating the results of research and extension activities.

The initial lack of coordination between the intervening actors providing support and the dimension of the university somehow explains the fact that multiple initiatives had similar objectives. It seems to be difficult to separate one intervention from another, since they were implemented within a particular context of the country's circumstances and reflected the developmental stage of the university. For EMU itself, this might not be seen as a lack of perspective but rather as accumulation of efforts towards the materialisation of its strategic development objectives. After a rather chaotic initial period (1975-1990s), the institutionalisation of a centralised unit that coordinates all the

activities and became responsible for the interaction between EMU and donors, partners, and other stakeholders brought new dynamics that affected the design and implementation of the initiatives. Moreover, the institution's needs assessment and more coordinated actions between the various donors themselves made the new initiatives more focused and relevant by avoiding duplication of efforts and dispersion of resources.

The impact of the interventions must also be perceived differently according to the intervention's scope. However, from a holistic perspective, the sum of the contributions of different and varied interventions in terms of outcomes have produced a measurable impact on institutional efficiency and effectiveness.

In sum, it can be said that the university's development in the last four decades was in line with the country's circumstances and needs. International and regional events and factors also played a role in the university's movement towards its transformation from a small teaching university to a large teaching, research, and outreach university.

Acknowledging that, to fulfil its social role of contributing to the country's development, the role of the university's leadership needed to ensure the necessary conditions to provide education, carry out research and extension activities, and mobilize the academic community. Since the university operation demands material, technical, human, and financial resources – in light of the university strategic plan – the university leadership, through the decades, has fostered relationships between the university and the outside world. Thus, the university's dependency on international cooperation was the instrument used to enable the development of the university.

The benefits of this opening-up of the university to the world were several, including the supplement of foreign teaching staff, technical assistance in the design and implementation of new degrees, and study programmes, teaching material and various equipment, financial resources, among other things. However, development of the Mozambican staff has always been a priority in the effort to transform the university. The increase in their qualifications, their balance by specialties, and their stability has always been through out in a planned and harmonised way in tandem with the needs of senior management over the years. In the process of university transformation, the university staff has played a role of change agents, either as beneficiaries or as facilitators of the many development initiatives. Moreover, personal interests also influenced the level of engagement of all internal actors.

Whereas institutional autonomy can be questioned, since the university relied mostly on external sources other than those of the state budget to ensure its operation, the university kept its administrative autonomy in terms of being able to perform specific academic projects of institutional relevance, as well as its autonomy to establish its own

vision and strategy, to set up its own governance structure, and to define its own priorities and responsibilities.

EMU's transformation was reflected in various aspects of the university processes and functioning. Likewise, the university's vision (mission, organisational structure, administrative autonomy, collegial bodies), the management of resources (management style, decision-making, communication flow, management system, monitoring, and evaluation), the human resources (skills, strategy, mentoring, motivation-rewarding), service delivery (diversity of services), financial resources (financial management, financial vulnerability, financial viability), and external resources (public relations, constituency, ability to work with central government), all these elements have changed over the decades. Despite the amount of support received, the autonomy of the university was not overshadowed, and the leadership of the university was in charge of taking decisions on the course of its transformative process.

4.1.3. University Community's Perspective on the Impact of EMU

This section presents the perspectives of the university community on the impact of the university, taking into account its mission and current vision. EMU has grown from a simple, Portuguese-dominated university, to a complex autonomous knowledge centre. As a public university that dominated the higher education scenario since Mozambique's Independence, it can be assumed that the university has had a considerable impact on the Mozambican society as a whole, and also on the Southern African region. The impact the university has had on the quality and development of education, academic and scientific excellence, and emancipation was expressed by the study participants, including the university community and its stakeholders.

Overall, the study participants' perception was that the university's operations and services have had a great impact on science, on the Mozambican society, and internally on the units and sectors, on students, and on staff. The quality of the graduates and their position in the economy, the quality of the teaching staff, the provision of the education service, the prestige of the university, and the relevance of the research being done are some indicators through which the university's impact can be conveyed.

4.1.3.1. Impact of EMU as a Teaching Institution

As an institution for teaching and learning, the university contributes to the development of the country by supplying the Mozambican society with a qualified workforce. The study participants' belief was that the university's transformation has been in line with the needs and demands of the Mozambican society.

In fact, EMU Strategic Plan (2008-2012) stated the university's objective as to assure excellence in teaching by training graduates, technically and scientifically, to be better professionals and to be capable of innovation.

For a long time, EMU was the only public higher education institution with comprehensive study programmes in the country. Accordingly, for many years in Mozambique, EMU's graduates dominated the employments for which higher education was required, including university teaching. Many have assumed leading positions in key sectors of the economy, particularly in government institutions. This idea was corroborated by a workshop participant who stated that '*the leaders of the country were teachers and students at EMU*' (Central Services Representative 2).

The quality of the graduates was influenced by the curriculum model and teaching methodologies adopted by the university/units. From the participants' perspective, the competence-based curriculum adopted by the FACED, for instance, has ensured better trained students at postgraduate level in the field of sciences of education. There is an understanding that from 1979 to 1989 the leading positions in the education sector were occupied by graduates from the Faculty of Education, given the fact that at that period only that academic unit was offering university training in the field of education. More recently, the faculty introduced a student-centred learning approach and adopted methodologies such as problem-based learning (PBL) and project-oriented learning (POL), which was also regarded as highly influential for teaching and learning approaches in and beyond the university.

The Faculty of Education through the Centre for Academic Development (CDA) also became responsible for in-service teacher training in the country. There is an understanding that by offering psycho-pedagogic training for higher education teaching staff, the faculty has made its contribution to ensuring quality teachers, quality teaching, and quality graduates. The faculty has also made its contribution in the design of education-related policies, strategies and plans, curriculum development and teacher training at all levels of the education system.

The Faculty of Engineering offers courses in the field of civil engineering, mechanical engineering, electrical engineering, chemical engineering, and electronic engineering. Thus, '*the availability of qualified staff for the sector of energy, construction, government, bank, transforming industry, and teaching*' *(*Faculty Manager 1) reveals the potential of the faculty, which also supplies skilled professionals for the emerging field of hydrocarbon extraction.

The Faculty of Sciences provides most of the skilled personnel in the country that work in banks, ministries, and other institutions of higher education. According to a participant, '*the uniqueness of the courses offered nationwide makes the Faculty of Sciences the only institution that trains physicists, chemists, geologists, biologists, and*

mathematicians'. Moreover, *'Staff from the Faculty of Sciences are called on to exercise government functions in the country*' (Faculty Manager 1).

Graduates from the Faculty of Sciences are prepared to teach science-related disciplines, and are wanted by businesses and multinational companies, given the nature of the courses. According to the study participants, the demand for science students led to serious issues related to the completion of the courses, since many students leave the university before graduating in order to start a career.

Concerning the African Studies Centre, a workshop participant expressed the fact that *'the African Studies Centre is the aegis of a considerable number of professors who have taught at EMU and elsewhere'* (CEA Staff 5). By providing teaching services, this group of qualified educational professionals has contributed to the improvement of the quality of education and the quality of graduates in the centre and beyond.

4.1.3.2. Impact of the EMU on Scientific Research

There was a common understanding amongst the CDA staff that *'academic excellence is a dream that EMU is willing to achieve and it is stated in one of the institution's official documentations. Academic excellence requires instruments and teachers. The discourse on the necessity of achieving academic and scientific excellence must be aligned with the regulatory instruments to motivate and guide us towards this dream of excellence and quality*' (CDA Staff 6).

The contribution of the EMU to the sciences is expressed through the scientific production of knowledge in various fields, which has been disseminated in various deliberative forums, such as conferences, symposiums, workshops, and seminars, and of course also in scientific publications.

EMU has as its mission the production and dissemination of scientific knowledge, and it promotes innovation through research as the foundation of the processes of teaching, learning, and extension (UEM, 2013). In view of the development of the society in which it is inserted, EMU began to develop applied research through master's and PhD research and consultancy with public and private institutions, companies, and NGOs such as the Ministry of Education, Oxfam, Action Aid Mozambique, UNICEF, and Plan International, respectively. Since the consultancies aim is to provide information for decision-making processes and advise as to what interventions need to be made, it can be said that the consultancies have had a big impact, since they changed practices, and developed different mentalities and better capabilities. This may have contributed to the achievement of scientific excellence. The research results and/or the technologies and knowledge were then applied to solve various problems in society, and were made available to the communities, partners, and other users (UEM, 2007).

The publications of research results include articles published in peer-reviewed journals and papers presented at national and international conferences. In 2013, for instance, the Faculties of Medicine and Sciences led the list of publications, with 60 and 55 publications, respectively, followed by the Faculties of Veterinary, Engineering, and the School of Hospitality and Tourism of Inhambane, and the Faculty of Education. Overall, in that year, EMU's publications included articles (about 80), books (just over 20), publications in scientific journals (just over 40), and presentations at conferences (about 100) (UEM, 2014).

With regard to scientific research, the Faculty of Education has been involved in various scientific projects over the years. In 2012, the Faculty of Education carried out 23 research projects, both individual and collective, involving entire departments. The research projects resulted in the publication of nine scientific articles and the participation of FACED's staff in national and international conferences where they presented scientific articles.

The contribution of the CDA to scientific excellence was claimed by a CDA staff during a Workshop, to be related to the improvement of students' academic writing skills through student support unit (CDA Staff 6).

The Faculty of Engineering is reported to offer the most complete and integrated engineering courses from the perspective of the classic teaching model. This recognition adds to the responsibility of the Faculty of Engineering to lead in processes of research, and production and dissemination of scientific knowledge, with a focus on technological areas relevant to socioeconomic development (UEM, 2013a).

Through the project 'Soltrain', the Faculty of Engineering trains experts and professionals such as manufacturers, installers, service technicians (plumbers, electricians, and refrigeration technicians), professionals from technical education institutions, and users of solar thermal systems, which represents the contribution of the Faculty of Engineering to the achievement of scientific and academic excellence. Funded by the Austrian Development Agency (ADA), the project aims to establish a competence centre in the country and to install a technology platform for solar thermal systems. The course covers the principles of design, manufacture, installation, and maintenance of solar thermal systems, including the use of the computational package RETScreen (FENG, 2015b), a clean energy management software.

Teachers from the Faculty of Sciences conduct research in many areas, and there is also a lot of research at master's and doctoral levels.

Scientific and academic excellence is also the standard that guides the African Studies Centre (CEA). The organising and hosting of scientific events with the participation of

the university community and other scholars from all over the world constitute an important milestone of the CEA's effort to achieve scientific and academic excellence. As a specialised research centre, the study participants expect that the CEA performance concerning research activities will exceed that of many other academic units.

An indication of the productivity of Eduardo Mondlane University as a research university can be found by looking at the quantity of output provided by Google Scholar (November 2021). 'Eduardo Mondlane University Maputo' results in 15,500 cumulative publications, of which 4,590 in the last five years (2017-2021), around a thousand per year, and much higher than in the decades before. In this inventory it is also important to mention the work of Gerdes (2013), a compilation of 1000 doctoral thesis by Mozambicans or about Mozambique, which also refers to the scientific production of the EMU's academic staff. A citation analysis of these publications was beyond the scope of this thesis.

4.1.3.3. Impact of EMU on Emancipation

Since the country's Independence, EMU was meant to be an agent of development and emancipation. Through the provision of higher-level training, the university ensured that Mozambicans were well prepared to occupy leading positions in Mozambican society. Since Independence (1975), the university has assumed an emancipatory role that has been maintained ever since.

In the course of time, regional disparities and representativeness influenced the university's inclusive vision towards people's emancipation. The university introduced an admission policy that has encouraged people from the centre and northern, as well as southern provinces – regions other than Maputo – to apply for admission and to get a university degree. The university has had the intention of reaching people from the remote and most poverty-stricken areas of the country, even if that proved to be very difficult in practice. Gradually the gender and disability dimensions also became important variables that challenged the university to become even more inclusive and assure student emancipation. In fact, the promotion of equitable access to all social groups, caring for the most economically and socially disadvantaged students, along with gender balance, are clearly stated in its Strategic Development Plan 2008-2012/14 (UEM, 2008).

Accordingly, the university carried out a mapping study to draw the social profile of students enrolled and to find out the causes of gender imbalance (UEM, 2008). Additionally, EMU put some effort into adjusting selection criteria to the political and socioeconomic circumstances, without compromising the quality of teaching (UEM, 2008).

The implementation of different initiatives and the role of some units makes this effort meaningful, according to the study participants. The Belgian *Desafio* Programme which offers scholarships to women, was specifically. Another project that was mentioned was 'Holidays Developing the District' that aimed to enable students to combine theoretical knowledge with practice, and enrich the districts with skilled technicians to solve local problems and bring innovations to enhance development in the districts. The Centre for Coordination of Gender Affairs, abbreviated as CeCAGe, became an organic unit of EMU, which is dedicated to the coordination of gender issues and gender-related activities.

The emancipatory role of the university is also visible through specific endeavours carried out at the faculty/centre level that have led to student emancipation and autonomy. The study participants mentioned that these efforts were intended to address gender issues by promoting gender participation in 'male' courses and encouraging gender inclusion in leading positions. The units also make an effort to support students with special educational needs through the offer of specific courses (Mozambican sign language) and modules (study methods and life skills), equipment, and teacher training.

It was also highlighted that, in 2013, the Pedagogic Directorate created a support service at the university level to attend to students with special educational needs with the support of the Directorate of Social Services (DSS). More recently, in 2015, a Braille laboratory was installed in the university's main library. Teachers and staff qualifications have also been enhanced to stimulate emancipation and autonomy, and the study participants mentioned that they had acquired an improved ability to deal with the changing dynamics of the more 'inclusive' and emancipatory teaching and learning process.

Study participants from the Faculty of Education mentioned that special education needs are now addressed in undergraduate and postgraduate courses, namely in psychology, and family and community therapy. FACED graduates perform free and voluntary work with street children and disabled children in some social institutions.

Recently, FACED introduced the Mozambican Sign Language (MSL), an undergraduate course intended to accommodate the inclusive educational policies advocated by the government of Mozambique through the Ministry of Education. The course was being offered particularly to train teachers who could then teach MSL with the desired level of quality at different levels of education, along with interpreters qualified to perform their duties in different contexts of the socioeconomic and political development of the country. FACED was intended primarily to meet the need for the training of teachers in the area of Mozambican sign language in order to improve access and quality of education for people with these special needs. Quality education offered to deaf students through literacy in sign language enables the physical mobility of

disabled citizens, and promotes regional and world integration, and therefore promotes deaf culture as a modus vivendi, which results in a grasp of the world by the deaf (FACED, 2013). This achievement, according to study participants, represents a major contribution on the part of the Faculty of Education to emancipation.

The CDA's contribution to the emancipatory role of the university is quite visible in some elements of inclusion which are present in the modules taught by the CDA. For example, there are issues related to learning differences (learning styles) and inclusive education, which are highlighted in the training modules.

The CDA collaborates with the Centre for Coordination of Gender Issues (CeCaGe) to teach the subject called 'Study Skills and Life Skills'. Apart from study skills and time management, the gender issue is carefully focalised in this subject (CDA Staff 3).

Regarding women's emancipation, workshop participants from the Faculty of Engineering pointed out that '*EMU and the Faculty of Engineering have female staff in leadership positions. That is the case of the [then] EMU's pedagogic director, the head of the Department of Electronic Engineering at the FENG, and the former deputy dean for Undergraduate Studies at the Faculty of Engineering'* (Faculty Manager 4).

In fact, the inclusion of female staff from the Faculty of Engineering in the composition of the management board at central (EMU) and faculty level is noteworthy. It gives the faculty a certain prestige and becomes a reference for female students applying for and attending engineering courses. A female leading this particular faculty reinforces the attractiveness for female students, through the 'Woman-Engineering Project', to pursue studies in the area of engineering with great chances of success. Within EMU, courses such as engineering are traditionally attended by male students for cultural reasons, such as the stereotypes related to suitable professions for males and females.

Participants in the Faculty of Sciences highlighted the emancipatory role of the faculty in terms of poverty alleviation in the country. The faculty has set up solar panels in villages, schools, hospitals (Chókwè, Chibuto, Ponta de Ouro, and Moamba) that provided solar energy and has had a big impact on the quality of the power supply and thus an improved quality of life for people.

The faculty encourages girls to embrace the scientific field by visiting secondary schools to encourage girls to take science courses. The Faculty of Sciences has made an effort to attract girls to apply and enrol in courses traditionally regarded as 'masculine' through awareness and dissemination of the course characteristics.

The contribution of the CEA to emancipation is expressed in many forms. The research on Mozambican sign language has enabled the solution of problems associated with special needs education, and it has informed the decision-making processes in regard

to re-establishing peoples' right to education, for example, bilingual education and the various aspects of inclusive education. Emancipation at the level of linguistic consciousness in primary schools and public services is a result of the CEA's work on the harmonisation and standardisation of the national languages.

4.1.4. External Stakeholders' Perspectives on the Impact of EMU

This section presents the external stakeholders' assessment of the impact of EMU on its surroundings in terms of contributions to society as a whole. EMU's stakeholders included in the study are the traditional partners, specifically the European-based development agencies, more specifically NUFFIC and SIDA, educational authorities, and professional organisations and associations. In the study, they were asked to focus on the role of the university and its impact on the country's development, education, science, and emancipation.

4.1.4.1. Impact of EMU as a Teaching Institution

The data showed that the university's status among the stakeholders, both education authorities' representatives and cooperation partners, is outstanding, given the context of its emergence and its developmental role in the Mozambican society. The university's status was acknowledged by an interviewee in the following terms: '*EMU is seen as the mother university of higher education in Mozambique; reason why it is seen as a model. It is a source of pride to Mozambique, and the society has high expectations concerning the quality of the teaching. EMU is seen as the motor of higher education'* (DICES Representative). Another interviewee stated that '*The role of EMU is to create competencies in the entire network of higher institutions. EMU should strive at the role of alma mater, a university that supports the universities' development network*' (Programme Officer).

The stakeholders' expectations towards the role of the university in the context of development converge. The university's contribution to the improvement of the quality of education was emphasised by all stakeholders. According to an interviewee from the National Directorate for Higher Education (DNES) in the Ministry of Science, Technology, Higher Education and Technical and Vocational Education (MCTESTP): '*The expectation towards HEIs is that they work for the improvement of the quality of higher education, betting on the teachers training. There is a total of 1900 full-time teachers in all 52 HEIs [in Mozambique], but only 14% have PhD level, 34% have a master's level, and the remaining lecturers are "licenciados". There is also a big challenge concerning psycho-pedagogic training. The expectation is that HEIs train their staff but also focus on the relevance of the courses they offer*' (DNES Representative).

Among educational authorities, there is an understanding that in terms of job opportunities the quality of education matters. As stated by a participant: '*The issue of quality is relevant, since many Mozambican citizens want to attend EMU precisely because of knowing that graduates from EMU have priority in the job market. EMU is not stationary; this organisation has been based on continuous learning in terms of organisational development, the reason why it creates conditions for individual and organisational learning. The lectures, the conferences, the symposiums, the workshops EMU organises are precisely for its development, and this will improve the quality of the research and the teaching, and therefore the quality of the researchers and graduates. This will endow graduates with technical and professional competencies to defeat* [sic] *the labour market, which is highly competitive*' (DICES Representative).

The previous statement infers that the competitiveness of the labour market drives peoples' desire to study at EMU and own an EMU diploma. In the case of teachers, their desire to teach at EMU is justified for status reasons.

A different perspective was presented by another interviewee who stated that:

Quality becomes a challenge. We have to train people who are able to do, not only to know, but also to know how to do it. Training according to the needs of the market is also urgent. The impact of the HEIs is not the one that is expected in terms of meeting market needs and the response to the country's development projects. (DNES Representative).

The impact of HEIs, including EMU, is measured based on the institutions' willingness to address the needs of the labour market. Therefore, training qualified professionals seems to be as relevant as fulfilling the market needs.

Concerning the relevance of EMU's courses, the interviewee claimed, '*The courses at EMU are relevant, first by the way they are designed, second because the graduates have acceptance in the market … and empirical evidence has shown this assumption*' (DICES Representative). Moreover, different courses impact differently on the country's development agenda, as further stated the same interviewee:

Depending on the fields, there is a positive impact in the political, sociocultural, and economic development of the country. The participation of the graduates of EMU in the job market, and their interventions in community development, turns them into an asset for the country's economic development. There are many psychologists working in many projects. The economists from EMU, when they graduate, lead intervention projects. EMU has graduates who are placed in decision-making posts, graduates who

design policies. All this contributes to the political and socioeconomic and cultural development of the country (DICES Representative).

SIDA's vision on the impact of EMU on the quality of education can be seen in the following statement:

The Quality Assurance System for higher education in Mozambique is quite new, and it has started to evaluate courses and look at institutions for higher education, including accreditation. EMU has adopted an internal process for quality assurance, self-evaluation, and this is one thing that is very positive because, to train master's and PhD graduates, quality assurance of education programmes is needed. EMU's investment in quality assurance of its education would improve its reputation, since what you hear is that graduates from EMU are not equipped to actually do what employers need. So, what matters is having a research mind-set, having teachers that also are researchers, who then will transfer a more critical thinking to the students as well (Sida Programme Officer).

4.1.4.2. Impact of EMU on Scientific Research

Stakeholders' perspectives on the impact of EMU on academic and scientific excellence emphasise the development of research abilities, and the increase of master's and PhD holders. According to Sida's representative, '*Some areas of EMU now have the capacity and critical mass that contribute to this. EMU researchers are publishing quite well. The increase in numbers of publications during the last five years or so has been steady. So, there is a good development curve. There is absolutely the potential for them to achieve excellence. If you would talk about institutional excellence you need to be able to train your own researchers and that is what EMU is starting to do. There is a need to develop research so the country can fight poverty using the knowledge produced by HEIs, including EMU*' (Sida Programme Officer).

The key role of research and its articulation through teaching and extension, and thus development was also expressed by another interviewee, a local education authority representative in the following lines:

The new vision of EMU looks at research as the driving force for teaching and extension, since a university without research does not function, and the society does not develop. The research results develop the economy, policies, and the culture (DICES Representative).

4.1.4.3. Impact of EMU on Emancipation

Concerning the emancipatory role of EMU, foreign donors' expectation is that the university will develop a gender policy and a sexual harassment policy, later approved in December 2019 and June 2022, respectively (UEM, 2019; UEM, 2022). Here particularly Sweden has played a leading and influential role. The understanding is that since Sweden has a feminist foreign policy, not supporting gender equality and human rights within the SIDA development cooperation would be wrong, and hence it more and more became a key element in SIDA's support for EMU, and EMU gradually adopted the same attitude.

The study found that university community and external stakeholders' perspectives on the impact of the university on the quality of education and scientific excellence differed to the extent that the first pointed at aspects such as the provision of highly trained and skilled graduates for the productive sector, and the supply of quality education ensured through competence-based curriculum design and student-centred teaching methodologies. The latter emphasised the role model of EMU amongst the higher education institutions that must strives to support them, and its developmental role towards the Mozambican society and its developmental agenda. Moreover, they stressed the teacher training to ensure EMU's quality teaching and education that creates professional competencies to fulfil the market needs, for better job opportunities and high rates of graduates' employability.

The local perspective on EMU contribution to achieve scientific excellence mainly relates to its knowledge production in the various fields of science and technology, including the performance of applied research at master's and PhD levels that results in scientific publications. From the stakeholders' perspective, the contribution of EMU relies on the fact that the university's focus now is on the development of research competencies and abilities through doctorate training amongst the teaching and research staff; research development is also perceived as the solution to foster the country's development.

The role of EMU towards emancipation was mostly recalled by both parties when addressing gender rights that can be ensured trough policy implementation and the need to empower both students and employees, and ensure gender balance.

CHAPTER 5

Discussion

This chapter discusses the suitability of the PADev methods for effective assessment of the development of an institution such as EMU based on the PADev experiment. For that purpose, the discussion is held around the four research questions that are addressed in the following sections: (i) To what extent can the PADev method of assessing development and change at EMU in a participatory way be effective in measuring the impact of development interventions at EMU? (ii) Which development interventions were implemented at EMU between 1976 and 2016? (iii) How did the development interventions change EMU between 1976 and 2016? (iv) What is the stakeholders' assessment of the impact of the development interventions at EMU?

5.1. The effectiveness of the PADev method in measuring the impact of development interventions at EMU

Concerning the first research question, on the effectiveness of the PADev method of assessing development and change at EMU in measuring the impact of development interventions at EMU, the data show that the method itself is flexible to the extent that the model does not require the application of the original design for the validation of the results.

The PADev data imported into the NVivo 12 enabled the generation of several analytical categories through open and manual coding of context units, which were small units of the transcribed text that described or represented a specific code afterwards coded in recording units. The precision of the PADev tools itself provides insight on potential analytical categories that enlightens the coding process as it leads the collection of specific data set. The consistency of the codes generated through open and manual coding was verified by applying the auto-coding to the data files.

Through the coding process that enabled the categorisation of the data - data classification and reduction - themes (recording units) and subthemes emerged from the data. The most relevant codes were related events, changes, development interventions, and university impacts. The identified themes were (i) external events affecting the university; (ii) changes and its impact on the university; (iii) development interventions and its impact on the university; and (iv) university impacts stressing the PADev tool for impact measurement.

Whereas the recollection of events and changes by participants provided the broad picture of the university development context, the development interventions denoted the way the university community experienced change intended to transform the

university in different points in time in order to meet its planned goals. The university impacts enabled to assess from participants' perspectives the relevance of the university in the larger societal environment.

As conceived, PADev integrates the following four principles (see Chapter 2): (i) it takes the poverty context as a point of departure, focusing on people's own assessment, valuation, and interpretation of life changes, and what is causal to those changes; (ii) it is a bottom-up approach, based on individual and group discussions among presumed beneficiaries of development interventions; (iii) it embraces a long-term perspective, covering several decades, so as to incorporate the experiences and perceptions of different age-groups within the study population; and (iv) the perspective strives for holism, to apprehend all sorts of development initiatives, irrespective of sector and agency (Dietz, 2012). Moreover, as a participatory approach that impacts evaluation, PADev has several assumptions, amongst them collective learning and knowledge production, democratic participation and inclusion, the equal validity of participants' views, and empowerment.

The first principle is based on the presumption of an existing context of poverty alleviation and societal change through external development interventions and beneficiaries' involvement in the identification and assessment of the changes. The PADev experiment in EMU was not meant to assess the impact of development intervention in changing a poverty scenario as such. Instead, the PADev aim was to portray the trajectory of the university's transformation from a colonial university, severely affected by a massive exodus of teaching personnel, to a well-established higher education institution in the local environment and acknowledged in the region. However, the data showed that Eduardo Mondlane University defined itself as a developmental university, and, as such, from the beginning embraced, relied on, and benefited from international cooperation translated into different forms, since the institution experienced a period of scarcity of human, material, and financial resources.

The second principle concerns stakeholders' participation in the evaluation, which presupposes their active engagement in a situation where, according to Mathe and Greene (1997), various interests and needs generate the content and form of the evaluation. PADev workshops were designed to engage (while collecting data) relatively homogeneous groups from all relevant categories of the population in the study area. The demographic, sociocultural, and socioeconomic composition of the community being studied are the relevant categories that define its stratification (Dietz et al., 2011), particularly in the rural community setting, where PADev was first developed. Concerning EMU, a different approach to ensure representativeness was employed. Instead of relatively homogenous groups, heterogeneous groups were formed, and for the selection of study participants amongst the university staff, three categories of participants were considered, specifically the demographic characteristics

(gender particularly), academic qualifications ('licenciado', master's and doctorate), and professional categories (assistant, assistant professor, and full professor).

The PADev workshops at EMU involved four staff categories divided in the same number of groups. The first category consisted of the boards of directors, which included the deans, deputy directors, and the heads of departments. The second category group included the staff, amongst them lecturers, researchers, and technical and administrative personnel. The third category included the alumni. A fourth category was the group of EMU's central managers representing the central directorates.

The third principle entails that we take into account the institution's life cycle, which requires the inclusion in the sample of elements of the population that have witnessed and experienced all past and present stages of the institution's life. It also highlights the notions of familiarity and memory, either individual or collective, without which it would not be possible to do the listing of events, changes and development interventions as predicted through the PADev method that led to further participatory local history writing. The gathering of the data begins from the recollection of past experiences on change and development interventions by the direct beneficiaries, including their valuation of the changes and interventions at the institutional setting.

The usefulness and effectiveness of the PADev as a method to assess development of EMU in a participatory way somehow relies on the set of participatory exercises that enabled participants' ability to look back and reconstruct their own contextualised experience of change and development. Apart from being a flexible tool that allows experimentation and adaptation according to the circumstances, PADev takes a step further as it intended to combine knowledge about the area's history with an assessment of people's perceived valuations of changes and interventions. In the case of EMU's PADev experiment the inventory of the changes and interventions and the participants' assessment on their impacts showed this distinct feature of the method.

Concerning the heterogeneity of the sample's principle, Dietz's vision (Dietz, 2012) is that by including in the sample people of different age groups, gender, and social status, it is possible to compare and contrast certain viewpoints and valuations in a critical reflexive manner. This is rather difficult when key informants are not around or not available due to retirement or death, and that was the case at EMU. The inclusion in the sample of all generations or age-groups is particularly important in the process of reconstruction of the complete history of the institution, whenever the institutional memory is not well documented and preserved.

Since the study population was diverse in terms of age-groups, gender (male and female), occupational category (full professor, associate professor, assistant professor, assistant, intern assistant), working regime (full-time, part-time), functions (lecturer, researcher, and technical and administrative personnel), academic qualification

(doctorate, master's, 'licenciatura' degrees), socioeconomic background (more or less literate, relatively poor, or rich), and so forth, this would enable the constitution of several small groups per unit. Therefore, the heterogeneity that characterises a big, complex, and scattered organisation, such as EMU, required a redefinition of the selection criteria. Therefore, demographic characteristics, academic qualifications, and professional categories were used as the selection criteria.

There was an understanding that group homogeneity does not grant equal social roles/status. Power relations cannot be avoided during participants' interactions. As pointed out by Mathie and Greene (1997), different stakeholders show different kinds and levels of communicative competencies that are quite often correlated with power and status. This phenomenon was indeed observed during the PADev workshops at EMU. There were more experienced workshop participants claiming authority over specific knowledge about the institution's circumstances, which inhibited the less experienced participants, and sometimes prevented them from expressing themselves. Amongst the group participants, there were those well-informed people who relied on their own experience to support their statements, and those who had limited information, given their short employment experience.

The fourth principle refers to diversity in experience and perspective so as to build a holistic understanding of interventions' meaning and content. Furthermore, diversity in stakeholders' participation also entails democracy and inclusion. PADev workshops are conducted in such a way that participants engage in a conversational-interaction process. Accordingly, people's active participation and engagement is guaranteed using the stick method, also called 'talking stick' (Dietz et al., 2011). By making use of the stick method, each individual in a workshop group takes turns speaking, thus preventing only those participants who dominate the conversation, and have a single perspective and dominant views, from being the only ones heard. It is argued that giving equal voice and equal opportunity to all participants stimulates understanding amongst participants and democratises the conversation taking place. At EMU, the stick method was also employed during the PADev workshops enabling full participation in some topics. Since the participants groups included employees from different generations in terms of age and length of service, therefore carrying different experiences and perceptions, it was true that despite their knowledge about a greater number of different interventions, not all participant groups knew of, and were able to assess, the same interventions and changes. Whereas it can be appointed as a PADev shortcoming, this is also a positive trait as this fact facilitated the setting of an environment for sharing and collective learning.

PADev as a method of information gathering, as argued earlier, was meant to provide a collective reconstruction of the development history of a given area by looking back at development and change. PADev allows to show how beneficiaries experience

development and incorporates them in the process of generation co-constructed knowledge from a holistic perspective. As stated by Dietz and colleagues (2013), the method takes into account people's memory of what they have experienced concerning what has happened in their social environment, based on their own value system. PADev, by enabling a process of collective learning and knowledge production, also empowers participants as it creates a responsive environment for openness and sharing.

Through this thesis, the past history of some units of EMU was subjectively reconstructed, and this history was cross-checked with factual information. The PADev method as originally conceived was revealed to be ineffective when applied in a university setting such as EMU.

The study showed that the urban-setting institution with the characteristics of the study population (highly heterogeneous population), as well as the complex organisational structure (huge organisation with scattered units, integrated in the same power structure, and different layers of decision-making), if not well addressed, becomes a constraint for the successful implementation of PADev. The university setting challenged the principles of the PADev methodology in such a way that complementary methods were required to reach key informants and cover periods that were not mentioned during the workshops.

Once necessary adjustments were made, the PADev experiment with different types of actors enabled the collection of data used to produce an enriched description of events, changes, development interventions, and the way such events, changes, and intervention impacted the university as a whole. The PADev approach and the methodology it implied allowed for the gathering of a wide range of information on EMU's history, based on people's memories. However, quite often participants mixed up events, changes, and interventions, and it became a challenge to separate these three elements. On the other hand, the strategy behind the application of this methodology created a good atmosphere for data collection, as the participants did engage in the task of dealing with their memories and making sense of their experiences.

The adjustments and shortening of the PADev original design were performed to account for the characteristics of the institutional context, which enabled the redefinition of some categories appointed in the PADev Guidebook by Dietz et al. (2011).

The context adjustment of the PADev modules made it possible to assess its effectiveness and to challenge some of the PADev assumptions concerning inclusion, democratic participation, empowerment, and shared knowledge.

PADev is conceived as an impact measurement tool to build up a big picture of development and change in a given area over time (Dietz et al, 2013). Thus, gathering the university community in small groups from selected academic and administrative units, taking into account the principle of inclusion that ensured diversity amongst the study participants by age, gender, occupational category, and length of service, enabled the collection of data on the impact of the development interventions at EMU by pointing out the interventions as remembered by the participants. The data included the description of the interventions' focus and perceived results, and subjective assessment through its usefulness and its effect on the university.

In the case of EMU, it was possible through PADev workshops to draw a long list of development interventions, assess them, and discuss their impact. The coverage of the period under analysis (1976-2016) was also possible by including in the sample employees with long, medium and short-term professional ties with the institution, including direct beneficiaries of the interventions, providing, therefore, detailed information on the length, scope, beneficiaries, and expected results. Those who were able to do so, shared detailed information on their experience of change to the extent that fostered interactive learning amongst participants and knowledge construction. The major interventions were well known given the fact that they had been long-term, universitywide and had developed a sense of ownership by performing, prior to design and implementation, a large-scale institutional needs assessment. However, it was felt that the early years (prior to 1975 and 1975-1985) could not be covered as comprehensive as the years after 1985, for the simple reason that it was too long ago for almost all study participants, and almost all early university staff had been foreign, and they were either no longer alive, or had departed from Mozambique a long time ago.

Methodologically, the usefulness and effectiveness of the PADev approach was established by adjusting the PADev design to fit the university setting with its stakeholders and specific characteristics, putting some of its design assumptions to the test and making it necessary to change the participatory exercises that captured the university development context.

5.2. Development Interventions and its Impact on EMU

The second research question allowed the identification of the development interventions that were implemented at EMU between 1976 and 2016.

A sequential analysis of the events that characterised the context of development of the higher education in Mozambique and therefore EMU showed that the departure of Portuguese citizens from Mozambique including lecturers and university students and

the nationalisation policy stated by the transitioning government following the Independence of Mozambique.

The proclamation of Mozambican Independence on 25 June 1975, which resulted from the signing of the Lusaka Agreement on 7 September 1974 between the Portuguese State and the Mozambique Liberation Front (FRELIMO), a nationalist movement that launched the Armed Struggle for National Liberation with the aim of achieving Mozambique's Independence. This agreement signified the recognition of the Mozambican people's right to Independence, the handover of sovereignty to the Mozambicans, and the recognition of FRELIMO as the representative of the Mozambican people, resulting in the formation of a transitional government (1974-1975)[57].

In a path-dependent reactive sequence, one can assume that the Independence of Mozambique was the initial event that set into motion the chain of temporally ordered and causally connected events, turning each event in the sequence as both a reaction to antecedent events and a cause of subsequent events. These are the cases of the establishment of the *Centro 8 de Março* (1977); the occurrence of the Civil War (1977-1992); the integration of Mozambique in the Southern African Development Community, SADC (1992); the approval of the Higher Education Law (1993); the emergency of new Higher education institutions (after 1993); the holding of the 1st General Election (1994); the launch of the EMU's Strategic Development Plan (1998); the occurrence of the World Economic Crisis of 2008; the discovery of natural resources (2012).

The event was picked as the early contingent historical event that represents the key breakpoint that caused the rupture between colonial period and post-Independence period. In other words, the proclamation of Mozambican Independence marked the period of decolonisation and Independence. This early event triggers subsequent development by setting in motion a chain of tightly linked reactions and counter-reactions expressed in the form of interventions or initiatives that influenced change at EMU.

It also marked the transition from Lourenço Marques University (a colonial university) to Eduardo Mondlane University (a national university). It was the departure point from previously established practices that conditioned the implementation of a range of interventions and initiatives that produced a trajectory of change that affected processes, structure and functioning at EMU. The development path the university experienced over decades, and the interventions implemented to overcome certain conditions was surely determined by the sequence of events that followed the Independence of the country.

[57] file:///C:/Users/HP/Desktop/Acordo%20de%20Lusaka-doc.pdf

Intervention is seen as a set of sequenced, planned actions or events intended to help an organisation to increase its effectiveness. That is, 'planned improvement, and reinforcement of the strategies, structures, and processes that lead to organisation effectiveness' (Cummings, & Worley, 2009, p. 121, as cited in Odor, 2018, p. 62). As deliberate attempts to change an organisation or sub-unit towards a different and more effective state, interventions purposely disrupt the status quo. Development interventions in the context of an organisation are meant to improve the organisation's functioning and increase the capability of individuals and groups to solve organisational problems and to react to external challenges (Shvindina, 2016, as cited in Odor, 2018, p. 63), through participation of the organisational members.

The initiatives recalled by study participants that were implemented at EMU as referred to in the previous chapter, were placed in the following categories: consortiums and networks, funds, projects, programmes, partnerships and events. All fall in the spectrum of development interventions as described above, if considering its main goal, outcomes and effects.

The common feature of the interventions was the fact that all followed the principle of needs assessment prior to the design of each intervention. The level of beneficiaries' participation before the decision-making regarding the implementation of the initiatives determined the sense of ownership and level of commitment towards the interventions leading to its success or failure.

Sessa & London (2015) point out three types of organisational development interventions, namely individual, group and organisationwide. In the needs assessment, the organisation identifies the type of intervention needed and starts planning to implement that. Whereas individual and group interventions are pertaining to an individual and a group respectively, organisation interventions rely on strategy and policy of, in our case, the university as a whole.

Accordingly, the various interventions mainly aimed at the following purposes: capacity building, curriculum design and programme development, and infrastructure development (including physical, lab and technological equipment).

5.3. Changes and their Impact on EMU

The third research question focused on the way the development interventions changed EMU between 1976 and 2016.

The empirical data showed that EMU went through successive changes that affected its processes, structure, organisation and functioning. The changes that took place at EMU will be discussed taking into account Kezar's categorisation of the changes in higher education organisations, that are based on the forces or sources (external environment and internal environment), degree (first-order change: organisational development, second-order change: organisational transformation), timing (revolutionary, evolutionary), scale (individual, interpersonal and organisational level), focus (structure, process and attitude), responsiveness (adaptative, generative), intentionality (planned, unplanned), response time (proactive, reactive), involvement (active, static), and target (process, outcome) (Kezar, 2001).

Concerning the origin, whether it was spontaneous or centralised, by analysing the change that took place in the four domains within the context of EMU, one can argue that both spontaneous and centralised change occurred. The centralised change that is coordinated might be the planned outcome of the development interventions. These include changes in course offer, teaching methodology, management procedures, and others. However, spontaneous, unintended change might also occur as a result of uncoordinated choices of many agents, specifically related to changes in staff's academic qualifications that depend on people's will to pursue further education. This particular change was perceived as highly relevant for the improvement of the quality of education offered at EMU.

Regarding the forces and sources of the changes witnessed at EMU and reported by the study participants, these occurred in different periods of the university life cycle as described earlier and took place in specific domains, such as pedagogy, administration, management, human resources, infrastructure, and property. Overall, the changes resulted from the combination of both external and internal environments, since externally funded development interventions played a great role influencing change in the various sectors. However, the university leadership played a key role taking part in, and enabling the implementation of development initiatives under the scope of university cooperation that benefited academic departments and faculties, including the administrative bodies and sectors or the entire university. Locally, a suitable political and legal environment was created (e.g., Law 1/1993 of 24 June) to ensure the expansion and development of the higher education system, leading to the diversification and differentiation of higher education institutions (*Assembleia da República*, 1993).

Following this path, and taking advantage of the support, the university was able to overcome the critical situation characterised by the exodus of the Portuguese teaching staff, closure of some courses, and shortage of student population in its early stages after the country's Independence in 1975. To ensure its operation, the university initially focused its intervention on training promising young Mozambicans. The

university also performed successive curriculum reforms initiated in 1983, not only to introduce new courses, turn the existing study programmes more relevant, and provide quality education to Mozambican citizens, but also to adjust to the country's socio-economic situation and meet the requirements of the labour market. The academic reform movement led to the establishment of the Quality Office at EMU, in 2012-2013, as mentioned earlier.

Concerning the degree of change, EMU had experienced both types - revolutionary and evolutionary change -, since revolutionary change mainly took place in its early years to overcome the post-Independence crisis. The evolutionary change was experienced through the years as the university changed its mission[58] and vision, structure and culture to accommodate its own attempt to expand its operation and growth and continue to be relevant for the Mozambican society, by following its dynamics.

Based on Kezar's description of transformational change that is triggered by a crisis and affects the core of the institution, and looking at EMU situation right after Independence, one can assume that the crises the university faced demanded a transformational change. The university shifted from a colonial university to a national, developmental university and this shift implied changes in its governance structure, operation, policy towards access, and values expressed through its vision and mission. The university's organisational structure was undergoing a process of change, taking into account the need to fulfil the university's vision and mission, growth and expansion. New academic, research, and administrative units emerged (UEM, 2014a).

Following Kezar's (2001) discussion of the categories of change, all three change scales - individual, interpersonal and organisational scales - might be applied to EMU's context. Change at individual, interpersonal and organisational scales involved the change in the institution's mission in 2013 in response to the new institutional dynamics and development plans. Since individual change also included technology integration into the learning process, EMU introduced blended learning, at postgraduate level, and this approach gained more relevance during the first years of the COVID-19 pandemic (2020-2021).

If we look at the focus of change across the years, changes in both structure and processes at EMU were expressed in institutional documentation. Changes in the university organisational structure were aligned with the establishment, merging and extinction of academic and administrative units. The establishment of the quality office

[58] For instance, the university strategic plan 2008-2012 stated as EMU's mission 'to be an institution of excellence in the context of education, science, culture and technology, educating for life the professionals it trains and assuming responsibilities in the process of innovation and knowledge transfer. In this context, the university strives for its integration and affirmation in the regional and international scientific community, as well as for being an agent and object of changes and transformations in society' (UEM, 2008: 12). The strategic plan 2018-2028 stated as mission to 'produce and disseminate scientific knowledge and promote innovation through research, extension and outreach activities, while imparting humanistic values onto generations to face contemporary development challenges of the society' (UEM, 2017: 2).

in 2012 is a clear example of a unit that was missing and became part of the organisational chart in the 2000s. Changes in procedures are documented and translated into norms or manuals, such as Academic Process Management Procedures Manual (DP-UEM, 2015). Changes in process can be related with the appointment of the deans of faculties, schools and centres introduced in 2011 which became a democratic process carried out through elections and involving all the faculty community approved by the rector's office (Dispatch No. 273/RT/2011).

In terms of responsiveness, given its complexity, EMU can be considered as a learning organisation as described by Senge (1990) where there is system thinking, shared vision, team learning, and changes tend to be generative, although adaptive change also occurs in response to some adverse circumstances. EMU organisational development has been based on continuous learning, therefore the institution created conditions for individual and organisational learning. Therefore, the organisation of conferences, symposiums, workshops aimed at its development, as well as to improve the quality of the research and the teaching.

Concerning intentionaly/planned or managed change by allowing the implementation of the various development initiatives in line with the university strategic development plan, EMU leadership expressed the willingness to change. Overall, the scope of the initiatives addressed the three pillars of teaching, research, and extension and innovation.

In addition, Eduardo Mondlane University through its life cycle has experienced both proactive and reactive changes. Proactive change included changes in physical infrastructure, staff qualification, and learning methodologies. Reactive change led, for example, to the changes in the curriculum framework for undergraduate studies as a result of the failed implementation of the Bologna curriculum model. Active change also happened at EMU considering the integration of PBL into the teaching and learning process, in addition to the shift in the teaching paradigm from teacher-centred to student-centred learning approach as a teaching philosophy.

Considering the target, the adoption of a student-centred approach at EMU was a change in attitude towards the teaching and learning environment. The introduction of automatic correction of university admission exams, which affected the examination process, and the digitalisation of student academic information through the implementation of the Integrated Academic Registration System (SIGA) also represents a new process that complemented the students' physical academic record.

In conclusion, it can be said that through PADev experiment and the inventory of the major changes, it was possible to place them in the categories referred to above, as

described by Kezar (2001) and have a better understanding on how the university changed its processes, structure, organisation and functioning.

5.4. Stakeholders' assessment of the impact of the development interventions

This section addresses the stakeholders' assessment of the impact of the development interventions at EMU. The stakeholders' assessment of the impact of the development interventions at the institution was discussed taking into account EMU's impact on the quality of education, scientific excellence, and emancipation. The perspectives of the internal and external stakeholders are discussed to show the extent to which the university community and the external stakeholders perceive the impact of the university on the surrounding environment. The perspective of both internal and external stakeholders concerning quality of education, scientific excellence, and emancipation are presented separately but not detached from the main issue by following that order.

Concerning the quality of education, the major reference was the adoption of a competence-based curriculum that demanded a new perspective towards curriculum design and student outcome. In addition, the student-centred approach and the offer of in-service teacher training programmes was also perceived by internal stakeholders as having been influential towards the quality of education and quality of graduates since it contributed to enhance the teaching performance.

The adoption of the competence-based curriculum approach led to a broad movement of academic reform within EMU. Despite the underlying assumption towards the impact of in-service teacher training programme, that was constituted by specific modules, that enabled the teacher to provide a better performance in the classroom, its pedagogic component went through successive developments during implementation to become mandatory and getting a profound impact on staff career promotion.

External stakeholders showed their appreciation of the impact of the university in terms of expectations. External stakeholders have high expectations towards the role model the university must play in the wider Mozambican context, being regarded as the mother university of higher education in Mozambique. These expectations are directed to the provision of quality of education, and the setting of competencies in the network of higher education institutions. Expectations are also high towards the university's outcome, as the graduates must hold high technical and professional competencies to meet the requirements of the labour market and to be able to actively participate in the country's development projects. Meeting these expectations is somehow also related to the implementation of the quality assurance system.

A similar perspective is presented by Esteves (2008) who argued that student-centred teaching is the first condition for achieving pedagogic excellence in higher education. To attain this goal, it is necessary to make an investment in the formal pedagogic training of university teachers.

Concerning the impact of the institution on scientific excellence, both individual and group research were appointed as to lead to scientific publications. The dissemination of the scientific publications in various scientific platforms, as well as the improvement of students' academic writing skills was also regarded as contributing to achieve scientific excellence.

It can be said that to achieve excellence in the field of scientific research demands much more than the level of participation on research activities which result in publications. There are other factors to combine and consider, such as solid research skills, embedded research culture, interdisciplinary perspective towards research, and the link between teaching and research.

From the external stakeholders' perspective, excellence in scientific research is associated with the development of research abilities through staff training at postgraduate level, since the institutional excellence is attributed to the university's ability to train researchers and develop a critical mass that produces knowledge for development.

A diagnosis made by CIPES (2021), showed that EMU is a teaching-oriented university with some research faculties and academics committed to research. For instance, the number of publications released in 2013 in the field of health and natural sciences by the Faculties of Medicine and Sciences (sixty and fifty-five respectively) shows how committed the faculty staff are to engage with the scientific community and to participate in the global process of knowledge production (UEM, 2014). And after 2013, publication output has increased and widened to include many more researchers in other faculties and schools as well.

Nevertheless, according to CIPES (2021), in order to achieve its wish of becoming a research university, it must observe a series of assumptions, among which, to develop a culture of active research, organise research colloquia, attract initial funding for the formation of communities of practice, organise conferences and workshops to share research communications and scientific publications, forming communication channels to foster a positive research environment, instigating the link between teaching and research, and make sure that academics prioritise research over teaching. Furthermore, EMU must value its research function and the organisational context of EMU's independent research centres so that it becomes a repository of know-what (knowledge) and know-how (competencies), as well as a global centre for the exchange of innovative

knowledge and technologies. EMU should also focus on continuous professional development, focused on the development of its investigative capacity adapted to the individual needs of different groups of officials in order to fill identified gaps in research training, and develop institutional research capacity.

Although the institution encountered gains in terms of research capacity created over the years with postgraduate training at master's and doctorate levels and the rise of publications, this diagnosis shows how far EMU still is from achieving excellence in scientific research, since the research practice is still considered by the stakeholders as being in an incipient phase.

With regard to emancipation, EMU admission policy, which addresses regional disparities and ensures inclusiveness and equity towards university access, indirectly contributes to the emancipation of those regarded as economically and socially disadvantaged. It also considers the disability and gender dimensions.

Apart from caring for the access, the university, through the Pedagogic Directorate created a student support unit in 2013, to deal with student's affairs and special education needs with the support of the Directorate of Social Services (DSS). This emancipatory principle is also stressed through the course offer, and that is the case of Mozambican sign language, introduced in 2013 at the Faculty of Education. Moreover, in 2015, a Braille laboratory was installed in the university's main library, and, more recently, EMU launched its Gender Strategy 2020-2030 (UEM, 2019).

The relevance of the gender policy, as well as the sexual harassment policy to support gender equality and human rights, constitutes the means to ensure female emancipation. Although the gender issue has become part of the university community's awareness and has been institutionalised with the establishment of the gender unit in 2008 (Resolution No. 5/CUN/2008), both instruments are quite new and their impact is still unknown. However, the pattern of the relationship between employees themselves, amongst students and between student and teacher will change, since practices concerning harrassment and sexual assault were typified as harmful and reprehensible behaviour.

Overall, there was a common understanding that gender emancipation must be secured by the definition and implementation of specific institutional regulations that concerns, for instance, equal participation, equity in access, safety and empowerment.

5.5. Considerations on the Effectiveness of PADev

In considering the effectiveness of PADev, one can see whether PADev has advantages or disadvantages, strengths and weaknesses. The analysis also shows where PADev

brings new conceptual, analytical categories and/or methodological categories, and techniques.

Stakeholder involvement and active engagement in the evaluation process defines PADev as a collaborative, participatory, and empowerment evaluation approach and research tool. Since stakeholder participation constitutes a principle, the degree of stakeholders' participation affects the evaluation process. As a methodology, it is concerned with defining whose voices to include in the evaluation, how to include them, and determining who will speak for whom to ensure representativeness.

By doing so, PADev brings to the organisational context, and to an academic environment, a new concept, the 'voices of the voiceless'. This is a reference to those who might hide or become invisible in the process, and it demands their inclusion through a representative composition of the study population within the sample. If we define the academy as a space for free and open debate of ideas, all actors are able to express themselves before their peers. The idea of freedom to communicate ideas or facts, and autonomy related to universities, problematises this notion of voicelessness.

Another new concept that PADev brings to the evaluation context is the concept of 'facilitator'. The traditional evaluator or practitioner or researcher makes room for a new actor who is referred to as 'facilitator'. This person acts as an enabler in the evaluation process, where the participants as the evaluators play a major role. The facilitator encourages participants, elicits participation, helps to reach consensus amongst the participants' conflicting ideas, and designs the evaluation.

The stakeholders' perspective towards evaluation constitutes PADev's main characteristic, as well as the evaluation principles and processes. It results in knowledge constructed on the basis of their collective memories and their experiences.

Since the method values peoples' memory and experiences, from where knowledge about the institution is constructed, the rigour and objectivity of PADev method can be considered questionable. However, as a flexible approach that allows for adjustments and adaptation, in combination with other techniques, it makes it possible to build an understanding about factual knowledge from experiential knowledge.

PADev materialises the 'social realist' idea, as claimed by Searle (1995), that people can (collectively) know about their experiences with social reality and can share those insights with others, although always as a self-perceived phenomenon. PADev, by making use of timeline techniques, produces, as stated by Adriansen (2012), visual representations that allow a number of stories to be told along the same line and provides space for multiple representations instead of a singular one.

The PADev experiment at EMU involved two major categories of stakeholders, specifically internal stakeholders represented by the university community and the external stakeholders, amongst them foreign entities and local authorities and professional organisations. The representativeness was a principle in the selection of the study sample, and the level of participation and stakeholders' engagement was critical for the success of the experiment. However, PADev workshops alone did not engage participants as much as was hoped for, and therefore other data collection instruments were used to complement the PADev data gathering tool (PADev Workshops).

The data gathered portray PADev as a suitable tool and method to account for the historical and institutional changes in university settings, for which other methods might fall short, given the depth of stakeholders' participation and the key role they play in the evaluation process. This approach gives voice to those who benefit from development interventions, placing them at the centre of the data collection process and analysis, enabling, as pointed out by Dietz and colleagues (2013), participatory history-writing at local levels of scale.

Participatory approaches, such as PADev, transformative participatory evaluation, stakeholder-based evaluation, and democratic evaluation are inclusive, in the sense that these approaches have as their focus getting all legitimate groups represented in the research.

The PADev method stimulates bonding and trust amongst participants, which elicits engagement and active participation in the process of data collection, through which knowledge and consensus is built around the reality of the change and development context. Collaboration amongst the stakeholders aimed to build a history of development and change in an area over time, enabling the development of shared values and an understanding of the institutional development context.

Like in other methods, power dynamics were observed in the evaluation process on two levels. Firstly, between the researcher (facilitator) and the participants (stakeholders), and, secondly, amongst participants themselves. The power balance between the facilitator (herself a member of the university community and not in a position of 'high authority') and participants enabled an open dialogue about personal perspectives and sensitive issues concerning the development interventions. In the rural African context in which it was developed, PADev breaks down the power relations by engaging homogeneous groups based on gender, age, and socioeconomic status, allowing all group categories to share their experience of change and development. However, participants in EMU experiment were not grouped based on the above categories but rather as occupational categories and based on their organisational unit in the university. The use of techniques such as the 'talking stick' enhanced full participation, avoiding

the polarisation of ideas and prevailing views of dominant individuals, since all participants were given a voice, therefore avoiding marginalisation of group members.

In the participatory action research paradigm, participants have dual roles, both as subjects and as researchers, as they take part in the design, implementation, and interpretation of the research results. PADev participants are also expected to play a dual role, but that was not the case with EMU's PADev experiment, since the research facilitator was responsible for the design and interpretation of the data, while stakeholders took part in the implementation of the research. In addition, the subjective experiences of the subjects have also been valued, and the researcher's emphasis was on learning from and learning about the research subjects.

Concerning the utilisation of the evaluation results, the participants' valuation of the development interventions may turn them into change agents, as their assessment may influence decision-making processes and result in new programmatic or project initiatives. PADev data and evaluation are more likely useful in improving ongoing programme practices and strategies. Anonymous amongst the participants could openly share their own assessment of the development of the university while providing an insightful and meaningful contribution for the institutional memory.

PADev introduced a new methodological tool, within the context of development evaluation studies that allows the conducting of life history research and, in this case, institutional history research: the timeline interview.

As seen by Adriansen (2012), a timeline is an organising principle for historical events which provides opportunities for linking 'the history' to the wider social, political, and environmental context during the interview. Life history research in development studies is linked to oral history projects aiming to explore the culture and history of certain places through the memories and recollections of its people. In this context, people's perceptions of change become a subject to be studied, and PADev follows a similar principle. The timeline method provides a visual representation of main events in a person's life for engaging the interviewee in constructing this history in a collaborative effort shared by the interviewer and the interviewee (Adriansen, 2012).

In so doing, a timeline raises issues of linearity and coherence, and ownership and analytical power in the interview situation. According to Adriansen (2012), the interviewee's ownership of the timeline interview and sharing in the analytical power during the interview (although not equally) occurs when the researcher uses a large sheet of paper (A1 sheets) which allows for joint reporting, since the interviewee participates in drawing and writing. Since the interviewee can visualise what is being noted, the paper thus becomes a collective memory, and the shared notes and memories give the interviewee ownership of the interview and room to steer the interview in a

certain direction. In this process, the researcher is the one who ultimately holds the analytical power and holds a privileged position by deciding who is a relevant interviewee by formulating the questions asked and, when they are asked, by directing the flow of the discourse and by having the final power of interpretation. The diagrammaticl representation of a timeline enables a visualisation that increases the chances of seeing events and perceptions of these events in the context of wider life experiences. It also reveals tensions and contradictions in the history, as these become apparent when laid out on paper. Through this process, people deconstruct and reconstruct their history; they see different patterns of relationships. The paper and the drawings along the timeline become a tool for untangling the history and for engaging the interviewee in constructing this history.

Like in the timeline interview, PADev exercises also the use of materials such as flip chart sheets, the equivalent to A1 sheets of paper and markers. Although for practical reasons the participants were not expected to draw or write on their own on the flip chart, they did brainstorm and write their ideas on an A4 sheet of paper before sharing their ideas registered on the flip chart placed in the tripod for everyone to see.

At the end, this technique enabled participants to recall past events and experiences and reconstruct the chronological overview of the history of change and the development history of the institution. Through the PADev method, it was possible to combine knowledge about the institution's recent history with an assessment of peoples' perceived valuations of change and interventions. It also allowed for an understanding of the heterogeneity and dynamic interaction between changes and development interventions.

The experience of applying the methodology in institutional environments, particularly in a university, where we find a diversity of actors and academic units with different profiles, has proven to be difficult. In this type of institution, the involvement and engagement of all employees at all levels, including those who have already retired, becomes crucial for its successful implementation. Although it is a flexible methodology, in the sense that it can be adapted to the characteristics of the context and can assume different configurations, the exclusion of some exercises such as wealth group categorisation and wealth group benefits for participants to identify attributes that serve as references for poverty and wealth in their area, and to determine the impact of the best and worst five projects in the different wealth groups from the time of the beginning of their implementation to the time of their assessment by the beneficiaries, weakens the potential of the methodology. In a context in which the stage of development of the organic units that make up the university is a reflection of the history of its implementation and growth.

CHAPTER 6

Conclusion

The study examined the effectiveness of the participatory assessment of development (PADev) method in assessing the development trajectory of Eduardo Mondlane University (EMU) from 1976 to 2016, by identifying the factors that may have contributed to such development, the resulting changes, and the actors that promoted change. The study aimed to extract the experiences and perceptions of change and development from the university stakeholders. In so doing, it also tested the suitability and validity of the PADev approach as an evaluation tool to assess, from the beneficiary's point of view, the development path of a higher education institution on a long-term perspective.

To address the research problem, the PADev conceptual and theoretical framework was adopted, and the related methodological conventions taken into account in carrying out the study. The concepts of "evaluation", "participation" and "development" were related to PADev principles that underpin change assessment in poverty context, namely bottom-up approach concerning participation, long-term perspective towards inclusion, and holistic view that trace the development path.

Moreover, the epistemological assumption for knowledge production was drawn from the social realism and institutional theory. Social Realism Theory allowed to describe how the intended knowledge is constructed, and Institutional Theory of Change allowed to explain the changing process within institutions answering the *what*, *how*, *who* and *why* of change. The sociality of knowledge production and development matters most, as it portrays how people are related in the process of knowledge production, their willingness, engagement and participation. The Institutional Theory enabled to understand why and how change took place in the institution, and what sources or forces influenced and affected the change process, regardless of the direction of the change.

To carry out the study, a PADev experiment should be performed, and a case study research design of EMU was employed. Two board member categories of participants were involved, namely university community and university external stakeholders. The university community was comprised of staff from six units, including academic (Faculty of Education, Faculty of Engineering, and Faculty of Sciences), research (Centre for Academic Development, and African Studies Centre) and non-academic (a collective administrative unit also called Central Services, comprised of Human Resources Directorate, Directorate of Documentation Services, Finance Directorate, Scientific Directorate, Planning Office, Directorate of Property Administration and Institutional Development, Academic Vice-Rectorship, and Vice-Retorship for Administration and Resources.

The original plan involved seven academic units, and apart from the above referred to, it included the Faculty of Agronomy and Forestry Engineering, Faculty of Economics, Faculty of Arts and Social Sciences, Faculty of Medicine, but only three academic units, two research units and one administrative or central services unit, were involved in the study. Lack of time and limited resources were the main constrains and the reason for researcher's decision to re-evaluate the initial plan. Data collection per each unit, particularly to carry out PADev workshops, revealed to be a lengthy process, since different groups were convened separately. Workshop timing and set up was dependent on the availability of the group members. Negotiating participant's availability, getting participants' feedback and workshop preparation was time-consuming but crucial for the success of the PADev workshops. Therefore, the compliance of the fieldwork schedule was affected and delays were inevitable. The workshop duration (one morning or afternoon), organization (venue, materials), and catering (refreshments and lunch) per unit demanded a substantial financial amount that made it impossible to carry out the data collection in all intended units despite the uniqueness and complexion. Resources were relocated, but still budget constrains demanded downsizing the list of academic units to be covered by the study. The university external stakeholders' category included representatives of the Association of Psychology of Mozambique, the Mozambique Engineers Association, the Geological and Mining Association of Mozambique, the Centre for Applied Psychology and Psychometric Tests, the National Directorate of Higher Education, the Directorate for the Coordination of Higher Education, the National Council for the Assessment of Quality in Higher Education, the Higher Education, Science and Technology, the Netherlands Organisation for International Cooperation in Higher Education, the Italian Agency for Development Cooperation, and the Swedish International Development Cooperation Agency. A non-probabilistic sampling design was used, employing non-proportional and purposive sampling strategy for the selection of academic and administrative units, and the various category of participants (former and current rectors, vice-rectors, central management directors, deans and deputy deans, managers, alumni) and the external university stakeholders.

Since the study was conducted in three (03) academic units, two (02) centres and eight (08) administrative units from central services, the generalization of the results for the entire university and university community was pointed as an issue. Whereas the characteristics of the study units do not allow a complete generalization of the study results, if we look from a systemic perspective, there are units that might be seen through those which took part in the study, taking into account the nature of the changes, the scope of development interventions, as well as their impacts.

Even though the study portrays the characteristic of a participatory evaluation of development activities and its impacts, the circumstances in which the study was planned and designed did not allow participants to be involved in the preparatory and subsequent phases of data collection. Whereas stakeholders were not involved in defining the evaluation, the ones taking part on the PADev try-out have contributed to develop the data collection instruments, and they

were the most relevant data collection sources. The challenge was concerning data analysis and reporting, that demanded a better understanding of the digital PADev data templates and Excel database format for data recording, NVivo 12 for data analysis and a PADev format analytical report, which prevented the involvement of participants in this phase of the study. The study results will on due time formally disseminate to the study participants. In fact, participants did not take part in the choice of the evaluation approach, but in the data collection instruments.

The study used mixed methods for data collection and analysis. The data collection entailed document review, focus groups through PADev workshops, individual and group semi-structured interviews, open-ended questionnaires and crowdwriting. The study was designed as qualitative research, but combined qualitative and quantitative data collection techniques aiming to reach participants. While this was pointed as an issue in the methodological chapter, it does not call into question the predominantly qualitative nature of the research. Furthermore, as a complementary technique, the use of the questionnaire provided some degree of objectivity to the process and increased the effectiveness of PADev in considering its results.

The data generated from the data collection process responded to this main research question: To what extent can the PADev method of assessing development and change at EMU in a participatory way be effective in measuring the impact of development interventions at EMU?

Three sub-questions follow from this main question: (i) Which development interventions were implemented at Eduardo Mondlane University between 1976 and 2016? (ii) How did the development interventions change Eduardo Mondlane University between 1976 and 2016? (iii) What is the stakeholders' assessment of the impact of the development interventions at EMU?

The data gathered through written documents and different tools were systematised using a digital PADev data template, Excel database format, and NVivo 12, and the analysis was performed through content analysis and thematic analysis enabled by generated analytical categories.

The findings concerning the effectiveness of the PADev method was that the PADev design, as it was originally conceived (as a community development evaluation tool), did not fully suit the assessment of a higher education institution such as EMU. The university dimension (large-scale setting) and the complexity inherent in its organisation and functioning jeopardised the successful application of the method. It was revealed that the PADev method alone is ineffective, particularly as a method for data gathering in the case of EMU, due to the lack of commitment of a significant number of potential participants. Additional methods were employed to carry out the study, namely semi-structured interviews, open-ended questionnaires, and crowdwriting. Data gathered through PADev tools were not enough to convey the wider context of change and development, and so it needed to be complemented by the previously referred data collection methods. Therefore, it should be noted that commitment

and engagement on the part of participants are crucial for the successful use of the PADev method, and, in the EMU context, this was not the case.

The main constrain regarding the experiment was related to the number of planned PADev workshops considering that the participants categories was reduced due to participants withdrawn after confirmation, and the need to change the data collection technique to get access to informants. The level of participation was also an issue, and it determined participants' group size in the workshops. One could question the efficacy of the PADev method in terms of scope, and the meaningfulness of its data, and authority of the claims, due to the level of participation, but workshop exercises require shared knowledge. In fact, empirical evidences showed that most participants in small group are more likely to get some knowledge, and be able to assess projects, changes and agencies, if compared with larger groups. Participant's involvement and engagement is enhanced in small groups rather than larger groups with positive effects on the quality of data gathered. In addition, combined data collection techniques allowed to expand the sample size. Whereas the size group might not be a problem, the composition of the group (representation and inclusion) might be an issue whenever all the relevant categories of the study population are not represented in the sample. The heterogeneous compositions of PADev groups and the adoption of other data collections instruments to reach key informants made it possible to reach the principles of representation and inclusion.

Despite this limitation, as a participatory evaluation tool, PADev did enable the contextualised reconstruction of the institution's history from the perspective of the university, particularly the history of the sampled units. In so doing, PADev also created a platform for social interaction among the study participants that resulted in collective learning, self-knowledge and the production of shared knowledge about the context of change, the factors and actors that have contributed to the transformation and development of Eduardo Mondlane University.

PADev literature point out that the broad scope offered by the method reduces the focus on specific projects or interventions, and also gather too much irrelevant information. However, its ability for enabling early first data analyses onsite, by using digital PADev data templates, minimize this limitation. Probing more accurate information from participants during the data collection is possible. As a method for impact measurement based on a long-term perspective and from a beneficiary's point of view, this PADev experiment succeeded. While allowing participants to share their appreciation on the development intervention based on its usefulness and impact on various domains, valuable information concerning the effectiveness of the interventions was shared through their assessment of development and change, and expressed as best or worse initiative, producing positive or negative impact. The social realism perspective can be envisioned if we consider that participants' involvement in evaluating produce knowledge claims, an objective knowledge about the development of EMU on the basis of their collective memories and their experiences.

Concerning PADev validity, the conclusion is that the internal validity of PADev method was established. On the one hand, the case study design, conducted employing a PADev method, and content and reactive sequence analysis of the data enabled to answer the study's research questions. On the other hand, PADev tools original design was comprised of nine (9) exercises, but only seven (7) could be applied to the university context as it was. The urban setting, the professional participant's profile, and the small-scale determined the need to select from PADev exercises the ones that best fitted the university setting with minor adjustments. Moreover, some modifications, adjustments and extension are recommended in the literature to PADev methodology to fit the scale and settings that differ from peri(urban) environment, the one PADev was tested against. Therefore, looking at the study objectives and research questions, only those exercises more relevant to the assessment needs were selected. Since the main PADev's construct - evaluation, participation, and development – was measured, the implications of discarding some PADev exercises did not affect the instrument's robustness and internal validity. Accordingly, the study results were trustworthy and meaningful. Given the specificity of the sample units, and considering the university organizations and structure, the study findings cannot be extended to other populations, settings and times beyond the study's specific context, which means that its external validity can be questioned. The reliability of the PADev method lay on the fact that part of the results was repeatedly found across the study units, which leads to the conclusion that it can be replicable. It means that the consistency of the measure against the main constructs were observed.

PADev, conceived as a holistic evaluation tool, provided factual and experiential data on change and development of this higher learning institution. A more comprehensive, long-term perspective would require the resizing of the units of analysis and the performance of multiple case studies. However, from the findings one can infer that the PADev method and its methodological principles and epistemological assumptions surpass the traditional evaluation methods that make use of top-down evaluation approaches, as it stands in terms of stakeholder participation and involvement in the evaluation process, which enables a collective historical reconstruction and meaningful recollection of events, factors, and actors influencing change and development.

A range of development interventions was implemented at the institution during the period under analysis. However, the most recalled interventions were donor funding initiatives, either in the form of programmes (mainly MHO, NPT, Italian Cooperation, SIDA, and *Desafio*) and projects (CBP, BUSCEP, and NICHE-032), or in the form of funds where foreign donors individually fully provided or co-funded activities (FDI and FNI). Within the programme and project category, the study identified three main typologies of interventions: (i) research cooperation programmes and projects (SIDA Programme, *Desafio* Programme, NUFU Programme, and National Research Fund – FNI); (ii) capacity building programmes and projects (NICHE Programme, Italian Cooperation, BUSCEP project, and Institutional Development Fund – FDI); and (iii) inter-institutional cooperation programmes (PUO, SV, MHO, NPT and NICHE, CAPES – AULP Programme). Other types of interventions included

those promoted by foreign governments, agencies, and foundations; local and foreign universities; businesses and multinational companies; and government institutions through consortiums, networks, and partnerships. Overall, the interventions addressed institutional capacity building, staff development, physical infrastructure, research infrastructure, curriculum development, funding, and equipment.

The research results showed that some of the changes that occurred at EMU were specifically influenced by a path-dependent reactive sequence of events that led to the implementation of a range of interventions, which affected the functioning of the university. Considering Kezar's higher education models of change, the evolutionary approach towards change might explain why change occurred at EMU. This approach to change is a response to external circumstances, situational and environment variables. Different sectors of the university experienced a variety of changes. These changes affected five domains, namely pedagogic, administrative, management, human resources, and infrastructure and property. Accordingly, new study fields were introduced both at the undergraduate and postgraduate levels, as well as new teaching and learning methodologies. Moreover, there was improvement in the academic qualifications of the staff (master's and doctorate degrees) during the period under study, and the physical infrastructure and facilities were expanded and modernised during that time. By analysing the reported changes according to the sources, degree, timing, scale, focus, responsiveness, intentionality, response time, involvement level, and target, one can conclude that change at EMU occurred in a spontaneous manner as a result of isolated uncoordinated actions of many agents, but also in a centralised and coordinated manner mainly resulting from long-lasting, comprehensive, and result-oriented development initiatives, guided by EMU leadership.

Concerning the internal stakeholder's appreciation and assessment of the impact of the external interventions, one can conclude that it was generally positive. According to stakeholders' valuation of the interventions, these were influenced by what they considered personal and institutional gains, particularly when the benefits involved staff training and infrastructure to improve teaching and learning conditions. They were more likely to rate as 'positive' the interventions implemented in their own units, about which they had personal information and so were able to see the long-term effects that these interventions had. This did not prevent the stakeholders from valuing negatively the interventions they recalled had led, from their perspective, to institutional crises, discontinuous change, and paradigmatic shifts. The intervention that was criticised the most was the implementation of the Bologna Protocol, which was later withdrawn. The whole experience concerning the adoption and withdrawal of the Bologna Protocol raise the awareness towards a more democratic university governance structure and more emphasis on its autonomy.

The implementation of development interventions and related changes produced a positive impact on the quality of the education offered at EMU, in the pursuit of scientific excellence, and in the student and staff emancipation. Thus, the data showed that the increase in quantity and quality of the teaching staff, the adoption of student-centred teaching methodologies; the

curriculum reforms, and the quality assessment practices directly and positively affected the quality of teaching and the learning outcomes. The strengthening of the research infrastructure, research capacity and research funding stimulated an emerging research culture; and the provision of specific services to assist special education needs holders, as well as the implementation of a gender-related policy and other specific regulations contributed to promoting emancipation amongst students and staff.

This study, aimed to conduct a PADev experiment at EMU, tested the suitability of PADev as a method for effective participatory assessment of the development of higher education institutions. Adaptation to the original design of the method was performed to suit the setting (urban), type (higher education institution), and size of the institution (17 academic units, 7 research centres, 2 special units, 19 administrative units). The method's capability to ensure effective participatory assessment of development was achieved through PADev exercises, which require reconstructing the most important historical events and assess their most important effects in the institution; listing the perceptions about positive and negative changes (interventions contributing to major changes, interventions that helped to mitigate the major negative changes), listing and assessing the perceived impact of all the development interventions (valuation of interventions); assessing best and worst interventions; relating positive and negative changes to specific or generic development interventions.

If compared with other participatory evaluation approaches, namely Practical Participatory Assessment and Transformative Participatory Evaluation, regarding its utilisation, objective, control of evaluation process, stakeholders' selection, and depth of participation, PADev is the most appropriate for the study and generate the kind of data the study results were expected to produce. Overall, the study results, particularly concerning the changing factors and agents, their contribution and effects on the institution, does not contradict the findings reported in the existing program and projects' evaluation and annual reports produced by foreign consultants and implementing teams. Moreover PADev's ability to compare the contribution made by particular interventions to institutional change, as stated in PADev literature, is highly important for impact evaluation in development assessment.

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1: Public Higher Education Institutions, 1962-2022

No.	Higher Education Institution	Date of Establishment	Location of Headquarters (main campus)	Campuses or Branches in Provinces
1	Eduardo Mondlane University (EMU)	1962	Maputo	Gaza, Inhambane, Quelimane
2	Pedagogic University (UP)[59]	1985	Maputo	All 11 provinces
3	Higher Institute of International Relations (ISRI)[60]	1986	Maputo	----
4	Academy of Police Sciences (ACIPOL)	1999	Maputo	Manica
5	Higher Institute of Health Sciences (ISCISA)	2003	Maputo	Zambézia
6	Samora Machel Military Academy (AM)	2003	Nampula	----
7	Higher Institute of Public Administration (ISAP)[61]	2004	Maputo	Nampula, Sofala, Inhambane, and Gaza
8	Higher School of Nautical Sciences (ESCN)	2004	Maputo	----
9	Higher Institute of Accounting and Auditing (ISCAM)	2005	Maputo	----
10	Higher Polytechnic Institute of Gaza (ISPG)	2005	Gaza	----
11	Higher Polytechnic Institute of Manica (ISPM)	2005	Manica	----
12	Higher Polytechnic Institute of Tete (ISPT)	2005	Tete	----
13	Lúrio University (UNI-Lúrio)	2006	Nampula	Niassa and Cabo-Delgado
14	Zambeze University (UNI-Zambeze)	2006	Sofala	Tete, Manica, and Zambézia
15	Higher School of Journalism (ESJ)	2006	Maputo	----
16	Higher Institute of Arts and Crafts (ISARC)	2008	Maputo	----
17	Higher Polytechnic Institute of Songo (ISPS)	2008	Songo-Tete	----
18	Higher Institute of Defence Studies (ISEDEF)	2011	Maputo Province	----
19	Joaquim Chissano University (UJC)[62]	2018	Maputo	----
20	Academy of High Strategic Studies (AAEE)	2018	Maputo Province	Maluana
21	Save University (UniSave)	2019	Gaza	Gaza and Massinga
22	Púnguè University (UniPúnguè);	2019	Beira	Beira and Manica
23	Licungo University (UniLicungo);	2019	Quelimane	Quelimane and Tete
24	Rovuma University (UniRovuma)	2019	Nampula	Niassa, Nampula, and Montepuez
25	Maputo Pedagogic University (UP Maputo)	2019	Maputo	-----

Source: Langa (2013, p. 67); MCTESTP (2019); MCTES (2022)

2: Private Higher Education Institutions, 1995-2022

[59]Extinguished by Decree no. 2/2019 of 13 February.

[60]Extinguished by Decree 85/2018 of 26 December.

[61]Extinguished by Decree 85/2018 of 26 December.

[62] Resulted from the merge between the Higher Institute of International Relations (ISRI) funded in 1986 and the Higher Institute of Public Administration (ISAP) created in 2004 both extinguished in 2018 by Decree 85/2018 of 26 December.

No.	Higher Education Institution	Date of Establishment	Location of Headquarters (main campus)	Campuses or Branches in Provinces
1	Polytechnic University (*A-Politécnica*)[63]	1995	Maputo	Gaza, Tete, Niassa, Nampula, and Zambézia
2	Catholic University of Mozambique (UCM)	1995	Beira	Inhambane, Manica, Tete, Zambézia, Nampula, Niassa, and Cabo-Delgado
3	Higher Institute of Science and Technology (ISCTEM)	1996	Maputo	----
4	Mussa Bin-Bique University (UMBB)	1998	Nampula	Cabo-Delgado, Niassa, Zambézia, Inhambane, and Maputo
5	Higher Institute of Transport and Communication (ISUTC)	1999	Maputo	----
6	Technical University of Mozambique (UDM)	2002	Maputo	Gaza
7	Saint-Thomas University of Mozambique (USTM)	2004	Maputo	Gaza
8	Jean-Piaget University of Mozambique (UJPM)	2004	Beira	----
9	Higher School of Economics and Management (ESEG)	2004	Maputo	Manica, Tete, Cabo-Delgado, and Gaza
10	Higher Institute of Education and Technology (ISET)	2005	Maputo	----
11	Christian Higher Institute (ISC)	2005	Tete	----
12	Higher Institute of Training, Research, and Science (ISFIC)	2005	Maputo	----
13	Dom Bosco Higher Institute (ISDB)	2006	Maputo	----
14	Higher Institute of Technology and Management (ISTEG)	2008	Maputo	----
15	Monitor Higher Institute (ISM)	2008	Maputo	----
16	Higher Institute of Communication and Image (ISCIM)	2008	Maputo	----
17	Indian University of Mozambique (IUM)	2008	Maputo	----
18	Maria Mother of Africa Higher Institute (ISMMA)	2008	Maputo	----
19	Higher Institute of Management, Finance and Business (ISGECOF)	2009	Maputo	Niassa, Tete
20	Alberto Chipande Higher Institute of Sciences and Technology (ISCTAC)	2009	Beira	Cabo-Delgado and Maputo
21	Higher Institute of Science and Management (INSCIG)	2009	Nacala-Nampula	Maputo
22	Adventist University of Mozambique (UAM)	2011	Beira	----
23	Nachingweia University (UNA)	2011	Maputo	----
24	Higher Institute of Management and Business of Manjacaze (ISGN)	2011	Gaza	----
25	Higher Institute for Local Development Studies (ISEDEL)	2012	Maputo-Province	----
26	Mutasa Higher Institute (ISMU)	2012	Manica	----
27	Higher Institute of Education Management and Administration (ISGEA)	2013	Maputo	----
28	Higher School of Social and Corporate Management (ESGCS)	2013	Maputo-Province	----
29	United Methodist University of Mozambique (UMUM)	2014	Inhambane	-----
30	Wutive University (UNITIVA)	2014	Maputo	-----
31	Gwaza-Muthini Higher Institute of Management and Entrepreneur (ISGE-GM)	2014	Maputo-Province	-----
32	Higher Institute of Distance Education Sciences (ISCED)	2014	Sofala	-----

[63]Emerged in 1995 as the Higher Polytechnic and University Institute (ISPU) and later in 2007 through a Ministry Council Decree nº 42/2007 of 5 October 2007, changed its designation to Polytechnic University.

33	Higher Institute of Open and Distance Education (ISEAD)	2014	Maputo-Province	-----
34	Higher Institute of Management, Administration, and Education (ISG)	2014	Maputo	------
35	Higher Institute of Business and Technological Sciences (ISCET)	2016	Maputo	-----

Source: Langa (2013); Langa, (2014); MCTESTP (2015); MCTESTP (2019); MCTES (2022)

3: Higher Education Institutions (non-operating)

No.	Higher Education Institution	Date of Establishment
1	Higher Institute of Distance Learning (ISEAD)	2014
2	Technical University Diogo Eugénio Guilande (UTDEG)	2016
3	Sebastião Mussanhane Higher Institute (ISSMU)	2017
4	Higher Institute of Management, Technologies, and Entrepreneurship (ISGETE)	2017
5	Kaenda Higher Institute (ISK)	2017
6	Aquila University (UNAQ)	2018
7	Novo Horizonte University Eduardo Silva Nihia (UEHA)	2018
8	Higher Polytechnic and Technology Institute (ISPOTEC)	2018

Source: MCTESTP (2019)

Appendix II: Academic Programmes in Public and Private Higher Education Institutions

1: Public Higher Education Institutions' Academic Programmes

INSTITUTION	ACADEMIC PROGRAMMES		
	Arts, Social Sciences and Humanities	**Engineering, Natural and Health Sciences**	**Services and Business Sciences**
Eduardo Mondlane University (EMU)	Literature, linguistics, philosophy, law, economics, language teaching (Portuguese, French, English and Bantu languages), geography, anthropology, sociology, political science, archaeology, journalism, information sciences, music and theatre, organisation and management of education, environmental education, psychology, child education and development, adult education, higher education, curriculum studies	Geology, physics, chemistry, oceanography, meteorology, civil engineering, computer science, engineering, electrical engineering, electronic engineering, agricultural engineering, physical engineering, environmental engineering, forestry engineering, mathematics, statistics, biology, medicine, public health	Public administration, tourism, management, finance, accounting
Pedagogic University (UP)	Language teaching (English, Portuguese, French), social sciences teaching (geography, history, philosophy), educational sciences (psychology, pedagogy, didactics, educational management, economics)	Natural and exact sciences teaching: biology, chemistry, mathematics, physics, statistics and information management, teaching of sports and physical education	Management, finance, accounting
Joaquim Chissano University (merge between ISRI and ISAP)	International relations and diplomacy	Information systems technology engineering	Public administration
Academy of Police Sciences (ACIPOL)	None	None	Police sciences
Higher Institute of Health Sciences (ISCISA)	None	Nursing, biomedical-laboratorial technology, surgery, hospital management and administration,	None

		occupational therapy, public health	
Samora Machel Military Academy (AM)	None	Military engineering	Military professions
Higher School of Nautical Sciences (ESCN)	None	Electronic/ telecommunications engineering, engineering of maritime machines, maritime navigation engineering	None
Higher Institute of Accounting and Auditing (ISCAM)	None	None	Accounting and auditing management
Higher Polytechnic Institute of Gaza (ISPG)	None	Agricultural engineering, zoology	None
Higher Polytechnic Institute of Manica (ISPM)	None	Agricultural engineering, forestry engineering, zoology, eco-tourism and fauna	Accounting and auditing management
Higher Polytechnic Institute of Tete (ISPT)	None	Engineering of mines	Accounting and auditing
Lúrio University (UNI-Lúrio)	None	Computer science, engineering, architecture, medicine, dental medicine, pharmacy, nutrition, optometry, biology	None
Zambeze University (UNI-Zambeze)	Economics, Law	Civil engineering, processing engineering, mechatronic engineering, informatics engineering, agricultural engineering, rural development engineering, natural resources/ environmental engineering,	Management, accounting and finance

		forestry, engineering, medicine, dental medicine, pharmacy	
Higher School of Journalism (ESJ)	None	None	Journalism, public relations, advertising/ marketing
Higher Institute of Arts and Crafts (ISARC)	Visual arts, cultural animation	None	None
Higher Polytechnic Institute of Songo (ISPS)	None	Geology, mechanical engineering, electronic engineering, civil engineering	None
Higher Institute of Defence Studies (ISEDEF)	Law	None	Military studies, security

Source: Adapted from Langa (2013)

2: Private Higher Education Institutions' Academic Programmes

INSTITUTION	ACADEMIC PROGRAMMES		
	Arts, Social Sciences, and Humanities	**Engineering, Natural and Health Sciences**	**Services and Business Sciences**
Higher Polytechnic Institute (ISPU or A-Polytechnic)	Communication sciences, educational sciences, psychology, sociology, law, economics	Civil engineering, computer science, architecture and design	Accounting and auditing, business management, finance and management, tourism, management, political science
Catholic University (UCM)	Administration and management of education, adult education, educational sciences, social education, anthropology, social service, psychology, communication sciences, law	Computer science/ict, civil engineering, food engineering, information technology and systems, agricultural engineering, agribusiness, plant production, engineering, rural development, agriculture medicine, nursing, hospital management and administration, clinical and laboratory analysis, hiv/aids public health	Tourism management, development management, business administration, economics and business management, human resources management, marketing, ports management, regional planning
Higher Institute of Science and Technology (ISCTEM)	Sociology, Law	Computer science, engineering, architecture and urban planning, medicine, dental medicine, pharmacy	Business communication, business management, applied management, accounting and finance, public administration
Mussa Bin-Bique University (UMBB)	None	None	Business management, accounting and auditing, law
Higher Institute of Transport and Communication (ISUTC)	None	Mechanical and transport engineering, informatics and telecommunication	Management, finance

		engineering, civil engineering	
Technical University of Mozambique (UDM)	Law	Environmental engineering	Business management, accounting and auditing, management and finance, human resources management
Saint-Thomas University of Mozambique (USTM)	Sociology, philosophy, economics, law	ICT, agricultural sciences, rural development	Accounting and auditing, management and finance
Jean-Piaget University of Mozambique (UJPM)	Sociology, economics, law	Systems engineering	Management
Higher School of Economics and Management (ESEG)	Law	Civil engineering	Business management, tourism management, accounting and finance
Higher Institute of Education and Technology (ISET)	Education	None	None
Christian Higher Institute (ISC)	Theology, Psychology	None	None
Higher Institute of Training, Research and Science (ISFIC)	Education	No data	No data
Dom Bosco Higher Institute (Dom Bosco)	None	Agricultural teaching	Administration teaching, accounting and auditing teaching, tourism teaching
Higher Institute of Technology and Management (ISTEG)	Communication sciences, social and organisational psychology, law	None	Economics, business management, human resources management, accounting and finance
Monitor Higher Institute (ISM)	Psychology, sociology, economics, law	Computer science, engineering, ict/computer science	Accounting and auditing, financial management, human resources management
Higher Institute of Communication and Image (ISCIM)[64]	Law	None	Communication and business relations, accounting and auditing, business management, informatics management,

[64] *Instituto Superior de Comunicação e Imagem de Mocambique*

			informatics systems, informatics multimedia, marketing multimedia
Indian University of Mozambique (UAM)	Curriculum development, theology, religion	None	Accounting and auditing
Maria Mother of Africa Higher Institute (ISMMA)	Education, social services	None	None
Higher Institute of Management, Finance and Business (ISGECOF)	Law, economics	None	Management, accounting and auditing
Alberto Chipande Higher Institute of Sciences and Technology (ISCTAC)	Psychology, Sociology	Medicine, health sciences, pharmacy, public health	Accounting and auditing
Higher Institute of Science and Management (INSCIG)	No data	No data	No data
Adventist University of Mozambique[65]	Curricular development, theology and religious studies	None	Accounting and auditing
Nachingweia University (UNA)[66]	Political science, economics and development, legal and political science, legal and economic sciences, agricultural economics	Agronomy	Public administration and management, business management, poverty studies and development
Higher Institute of Management and Business of Manjacaze[67]	Law, agricultural economics	Agronomic engineering	Public administration, management of agricultural enterprises, human resources management, educational management, environmental management, accounting and auditing
Higher Institute for Local Development Studies (ISEDEL)[68]	Development anthropology, law, bilingual education, psycho-pedagogy, medical anthropology, sociocultural animation, social services and development, biology and chemistry education	Organic farming (agro-ecology), nutrition	Financial management, human resources management, public administration, natural resources and environment management, accounting and auditing, business management and administration
Mutasa Higher Institute (ISMU)	No data	No data	No data

[65] *Universidade Adventista de Moçambique*

[66] *Universidade de Nachingweia*

[67] *Instituto Superior de Gestão e Negócios de Manjacaze*

[68] *Instituto Superior de Estudos de Desenvolvimento Local.*

Higher Institute of Education Management and Administration (ISGEA)	None	None	Accounting, taxation and auditing, business management, project management
Higher School of Social and Corporate Management (ESGCS)[69]	Law, Economics	Information systems, technology of information system	Management, accounting, taxation, corporate finance, security and gender at work, entrepreneurship
United Methodist University of Mozambique (UMUM)[70]	Education sciences, social sciences and humanities, agro-livestock	Engineering, computer science and information technology	Administration and management sciences
Gwaza-Muthini Higher Institute of Management and Entrepreneur (ISGE-GM)[71]	Law	None	Public administration, accounting and auditing, human resources management, business administration and management, business communication
Higher Institute of Distance Education Sciences (ISCED)[72]	Political science and international relations, Law	None	Environmental management, accounting and auditing, public administration, human resources management
Higher Institute of Open and Distance Education (ISEAD)[73]	Social sciences, educational administration and management, pedagogic supervision, gender studies	Mathematics and applications, informatics, web technologies and computer systems	Management, MBA, information and business systems

Source: Adapted from Langa (2013), MINED (2012).

[69] *Escola Superior DE Gestão Corporativa e Social.*

[70] *Universidade Metodista Unida de Mocambique.*

[71] *Instituto Superior de Gestão e Empreendedorismo de Gwaza-Muthini.*

[72] *Instituto Superior de Ciências de Educação a Distancia.*

[73] *Instituto Superior de Educação Aberta e a Distancia.*

Appendix III: EMU's Rector's Succession

No.	Rector's Name	Mandate
1	Fernando dos Reis Ganhão	1976-1986
2	Rui Baltazar dos Santos Alves	1986-1990
3	Elias Narciso Matos	1990-1995
4	Brazão Mazula	1995-2006
5	Filipe José Couto	2006-2011
6	Orlando António Quilambo	2011- 2022
7	Manuel Guilherme Júnior	>2022

Source: UEM (2013); UEM, 2022[74]

[74] UEM (2022). Prof. Doutor Manuel Guilherme Júnior nomeado Reitor da UEM. https://www.uem.mz/index.php/noticias-recentes/1578-prof-doutor-manuel-guilherme-junior-nomeado-reitor-da-uem

Appendix IV: EMU's Faculties, Schools, and Academic Programmes

Faculties and Schools	Level/Course		
	***Licenciatura* (Honors)**	**Master's**	**Doctorate**
Faculty of Arts and Social Sciences	Public administration	Social anthropology	Linguistics
	Anthropology	Public administration	Society and development
	Archaeology	Political science	
	Political science	Linguistics	
	Teaching French	Bilingualism and bilingual education	
	Teaching English	Teaching Portuguese as second language	
	Bantu language teaching	Language and society	
	Teaching Portuguese	History of Mozambique	
	Geography	Population and development	
	History	Rural sociology and management of development	
	Chinese language and culture		
	Linguistics		
	Linguistics and literature		
	Mozambican literature		
	Social services		
	Sociology		
	French/Portuguese translation and interpretation		
Faculty of Agronomy and Forestry Engineering	Agronomic Engineering	Rural Development	Agronomy
	Forest engineering	Agrarian economy	Agri-food management and policies
	Agroeconomics and agricultural extension	Management and conservation of biodiversity	Forest resources
	-	Agrarian extension	-
	-	Soil and water management	-
	-	Plant protection	-
	-	Technology and use of wood	-
Faculty of Architecture and Physical Planning	Architecture and physical planning	Informal settlement planning and management	Architecture and urbanism
		Regional and urban planning	
Faculty of Sciences	Ecology and conservation of terrestrial biodiversity	Informatics	Energy science and technology
	Applied biology	Disaster risk management and adaptation to climate change	Biosciences and public health
	Biology and health	Aquatic biology and coastal ecosystems	-
	Marine biology, aquatic and coastal	Physics	-
	Environmental chemistry	Chemistry and local resource processing	-
	Physics	Mineral resource management	-

	Applied geology	Geohydrology and aquatic resources	-
	Meteorology	Mathematics	-
	Applied geology	Renewable energy science and technology	-
	Mathematics	Renewable energy systems management	-
	Informatics	Legal sciences	-
	Statistics	-	-
	Geographic information science	-	-
	Industrial chemistry	-	-
Faculty of Law	Law	Economic legal sciences	Law
	-	Political legal sciences	-
	-	Human rights	-
	-	Social rights	-
Faculty of Economics	Management	Development economics	Economics
	Economics	Business management	Management
	Accounting and finance	Actuarial sciences	-
	-	Accounting	-
	-	Economy and management of oil and gas	-
Faculty of Education	Psychology	Education	Education
	Organisation and Management of Education	Family and community therapy	-
	Child Development and Education	Higher education studies and development	-
	Environmental Education	-	-
	Sign Language of Mozambique	-	-
Faculty of Engineering	Civil engineering	Hydraulic and water resources	-
	Electrical engineering	Food science and technology	-
	Electronic engineering	Oil engineering	-
	Mechanical engineering	Hydrocarbon processing engineering	-
	Chemical engineering	Health, safety, and environment	-
	Computer engineering	-	-
	Environmental engineering	-	-
	Engineering and industrial management	-	-
Faculty of Philosophy	Philosophy	Philosophy	-
Faculty of Medicine	Medicine	Public health	-
	-	Epidemiology and Laboratory	-
	-	Mental Health and Psycho-interventions	-
Faculty of Veterinary	Veterinary medicine	Animal production	-
	Animal sciences and technologies	Food safety	-
	Food science and technology	Preventive veterinary medicine	-
School of Hospitality and Tourism	Hotel management	-	-
	Management	-	-
	Tourist market management	-	-
	Tourist information	-	-
	Tourist animation	-	-
School of Communication and Arts	Journalism	Communication and development cooperation	-
	Music	-	-
	Theatre	-	-

	Information sciences	-	-
School of Marine and Coastal Sciences	Oceanography	Sustainable aquaculture	-
	Marine biology	Sustainable fisheries	-
	Marine chemistry	Applied oceanography	-
	Marine geology	-	
School of Rural Development	Agro-processing	-	-
	Agrarian economy	-	-
	Rural engineering	-	-
	Rural communication	-	-
	Agricultural production	-	-
	Animal production	-	-
	Communication and rural extension		
School of Business and Entrepreneurship	Commercial agriculture	-	-
	Agro-business	-	-
	Commercial management	-	-
	Finance	-	-
	Business management	-	-
School of Sport Science	Sports management	Sports management	-
	Sports training	Sports training	
	Adapted sports and health	Adapted sports and health	
TOTAL	87	72	12

Source: UEM (2020), UEM (2021)

Appendix V: EMU's Undergraduate Course Distribution by Field

Field	Course
Agronomic Sciences	Agronomy and agrarian extension
	Food science and technology
	Animal science and technology
	Veterinary medicine
	Animal production
	Fishery production
Biological Sciences	Biology and health
	Applied biology
	Marine biology, aquatic and coastal
Humanities	Anthropology
	Political science
	Childhood development and education
	Environmental education
	Philosophy
	History
	Sign Language of Mozambique Teaching Strand
	Sign Language of Mozambique Strand of Interpretative
	Organisation and management of education
	Psychology
	School psychology and special educational needs
	Psychology of organisations
	Social and community psychology
	Social services
	Sociology
Natural and Exact Sciences	Cartography and geological research
	Geographic information sciences
	Terrestrial biodiversity ecology and conservation
	Statistic
	Physics
	Geology
	Applied geology
	Marine geology
	Computing
	Mathematics
	Meteorology
	Oceanography
	Chemistry
	Industrial chemistry
	Marine chemistry
Social and Applied Sciences	Public administration
	Agro-business
	Tourist entertainment
	Archaeology
	Archaeology and cultural heritage management
	Architecture and physical planning
	Information science
	Trade
	Rural communication
	Law
	Economics

	Agrarian economics
	Finances
	Geography
	Accounting and finance
	Management
	Commercial management
	Business management
	Tourism markets management
	Management and leadership
	Hotel management
	Tourist information
	Journalism
	Marketing and public relations
	Organisation and management of education
Engineering	Environmental engineering
	Civil engineering
	Electrical engineering
	Electronic engineering
	Agronomic engineering
	Engineering and industrial management
	Water and sanitation engineering
	Forest engineering
	Computer science and engineering
	Mechanical engineering
	Chemical engineering
	Rural engineering
Arts	Teaching French
	Bantu language teaching
	Teaching Portuguese
	Linguistics
	Mozambican literature
	Portuguese/French translation
	Portuguese/English translation
	Music
	Theatre
Health	Medicine

Source: UEM (2020)

Appendix VI: The Quantitative Evolution of the Teaching Staff by Nationality (1975-2015)

Teachers	Year										
	1975	**1979**	**1984**	**1986**	**1990**	**1994**	**1997**	**2008**	**2010**	**2012**	**2015**
Teaching Staff	159	240	353	365	457	677	711	1295	1642	1659	1784
National Teaching Staff	5	47	110	188	308	523	585	1221	1557	1584	1705
Foreign Teaching Staff	154	193	243	177	149	154	126	74	85	75	79

Source: UEM (1991:10); UEM (1998); UEM, (2008: 5); UEM (2010: 4); UEM (2012: 14).

Appendix VII : Credential

Appendix VIII: Data Collection Instruments and Informants per Study Unit

Data collection technique	Research unit	Participant's group category	Number of Participants	Total
PADev Workshops	Faculty of Education	Management Board	5	22
		Staff	13	
		Alumni	4	
	Faculty of Engineering	Management Board	4	4
	Faculty of Sciences	Management Board	6	12
		Staff	6	
	African Studies Centre	Research Staff	4	4
	Centre for Academic Development	Staff	4	4
	Central Services	Representative of the Scientific Directorate	1	4
		Representative of the Pedagogic Directorate	1	
		Representative of the Planning Office	1	
		Representative of the Directorate of Heritage Administration and Institutional Development	1	
Interviews	Ministry of Science and Technology Higher and Technical and Professional Education	National Director for Higher Education (DNES)	1	2
		President of the National Council for Quality Assessment of Higher Education (CNAQ)	1	
	Ministry of Education:	Former National Deputy Director of the Directorate for the Coordination of Higher Education	1	1
	National Council for the Assessment of Quality in Higher Education	President	1	1
	Rectorship:	Former Rectors	3	6
		Rector	1	
		Academic Vice-Rector	1	
		Vice-Rector for Administration and Resources	1	
	Central Services:	Human Resources Director	1	7
		Deputy Director of Finance	1	
		Director of the Documentation Service	1	
		Cooperation Office: Programme Officers (SIDA, Italian Cooperation, NICHE)	3	
		Director of the Quality Office	1	
	African Studies Centre:	Deputy Director for Research	1	6
		Senior Researcher	1	

		Head of Department of Administration and Finance	1	
		Head of Department of Information and Documentation	1	
		Junior Researchers	2	
	Faculty of Education	Former Deans	2	6
		Teaching Staff	4	
	Centre for Academic Development:	- Dean	1	3
		- Staff	2	
	Centre for Studies and Psychological Support	- Director	1	1
	Association of Psychologists of Mozambique:	Vice-President of the Association of Psychologists of Mozambique	1	1
	Mozambique Engineers Association:	- General Secretary	1	1
	Centre for Applied Psychology and Psychometric Tests	Director of the Centre for Applied Psychology and Psychometric Tests	1	1
	Faculty of Engineering:	Alumni	2	2
	Donor Countries, Funding Agencies, and Embassies:	Ministry of Foreign Affairs, Netherlands	1	7
		Ministry of Foreign Affairs, Netherlands –MHO Programme Officer	1	
		NUFFIC –Senior Policy Officer	1	
		EP-NUFFIC - NICHE Programme Officer	1	
		Sweden Embassy in Maputo, Mozambique: SIDA Programme Officer	1	
		Italian Cooperation - Programme Officer	1	
		Embassy of the Netherlands in Maputo, Mozambique	1	
Questionnaires	Faculty of Sciences	-	3	5
	African Studies Centre	-	2	

Appendix IX: PADev's Workshop Programme

Workshop - EMU

Date and Place

Duration	Activity	Facilitators	Resources
30 min	Registration of participants	Secretariat	- Attendance List
45 min	Presentation of the programme and objective of the workshop	Facilitators	- Workshop Programme, - A4 Sheets, - Pen, - Flip-Chart and Tripod, - Bookmarks, - Bostik.
	Presentation of facilitators and participants (academic-professional profile).		
45 min	Events: List of major events affecting Eduardo Mondlane University.		
30 min	**Tea Break**		
1H 30 min	Changes: An inventory of the major changes in EMU and the environment around it (1976-1985; 1986-1995; 1996-2005; 2006-2015).	Facilitators	
	Individual evaluation of the changes by periods and later collective reflection on the results of the evaluation.		
1H 30 min	List of actors and factors (external and internal) that influenced the development of Eduardo Mondlane University.		
	Individual evaluation of the impact caused by the actors and factors on Eduardo Mondlane University and subsequent collective reflection on the results of the evaluation.		
1:00 hour	**Lunch Break**		
30 min	Relationship between events, changes, and actors – factors that influenced the development of Eduardo Mondlane University.	Facilitators	
1:00 hour	Impact of Eduardo Mondlane University on: I. The quality of education and the various aspects of development in Mozambique; II. Scientific and academic excellence (international visibility and recognition of scientific results, contribution to world academic knowledge). III. Emancipation in the internal and external environment.		
30 min	**Coffee Break**		
45 min	Eduardo Mondlane University Partners: Inventory of the most important partners for Eduardo Mondlane University (including alumni in elevated positions).	Facilitators	
15 min	Workshop Evaluation	Participants	- Evaluation Sheet
_____	**Closure**		

Appendix X: PADev Template Exercises

Exercise 1: HISTORICAL EVENTS
Objective: To reconstruct the most important historical events and to evaluate their effects for the institution. This is the starting point that sets the context for development. The exercise also serves to 'break the ice' among participants.

Module 1: Historical Events **Identity of the Group:** **Date and place:** **Facilitator and Secretary:**				
Group	Decade	Year	Description of Major Events	Effect on Institution [75] (EMU)

Exercise 2: CHANGES
Objective: Obtain a detailed list of perceptions about positive and negative changes occurring at the research site. The changes evaluated are organised into four areas (pedagogic, administrative, financial, and infrastructure). Later (in Exercise 6) participants are asked what interventions contributed to the positive changes, and what interventions helped mitigate the negative changes.

Module 2: Changes **Identity of the Group:** **Date and place:** **Facilitator and Secretary:**						
Group	Area	Sector	Big changes	Reasons for Change	Effect on Institution [76] (EMU)	Notes on Effects

Exercise 3: RECALLED INTERVENTIONS
Objective: To obtain the complete list of development interventions (programmes, projects, funds, partnerships, policies, etc.).

Module 3: Evoked Development Interventions **Identity of the Group:** **Date and place:** **Facilitator and Secretary:**					
Group	Sector	Name of the Development Intervention	Financier / Implementer	Description of the Development Intervention	Duration of Development Intervention

Exercise 4: EVALUATION OF THE INTERVENTIONS
Objective: To evaluate the impact of the projects mentioned according to the participants' perceptions. The period to be evaluated is the 'before' (the first year of the project) and the 'now' (as the project is perceived today).

[75] University, Directorate, Faculty, Centre, School.
[76] University, Directorate, Faculty, Centre, School.

Module 4: Evaluation of Development Interventions **Identity of the Group:** **Date and Place:** **Facilitator and Secretary:**								
Group	Sector	Name of the Development Intervention	Financier / Implementer	Description of the Development Intervention	Duration of Development Intervention	Impact[77]		Reasons for impact assessment
						Before	Now	

Exercise 5: BEST/WORST INTERVENTIONS
Objective: Identify which development initiatives are perceived to be better or worst, and why.

Module 5: Good/Bad Interventions **Identity of the Group:** **Date and Place:** **Facilitator and Secretary:**				
Group	Description of the Development Intervention	Good	Bad	Reasons for Rating

Exercise 6: RELATIONSHIP BETWEEN CHANGES AND INTERVENTIONS
Objective: To capture the impression of the participants in the attribution of major changes to specific or generic development initiatives. Participants are asked if they attribute the positive and negative changes to the interventions, type of interventions, or agencies.

Module 6: Relationship between Changes and Interventions **Identity of the Group:** **Date and Place:** **Facilitator and Secretary:**						
Group	Area	Sector	Change	Reasons for Change	Effects of Change	Causing/Mitigating Intervention? How?

Exercise 7: BENEFICIARIES
Objective: To determine the impact of the five best/worst projects for the different groups in two moments: 'before' (the first year of project insertion and implementation) and 'now' (as the project is perceived today). This exercise shows which groups benefited more or less from the development interventions implemented.

Module 7: Beneficiaries of Interventions **Identity of the Group:** **Date and Place:** **Facilitator and Secretary:**						
Beneficiary Group	Description of the Development Intervention	Financier / Implementer	Before	Reasons	Now	Reasons

[77]Categorias de respostas: ++ (impacto positivo grande); + (impacto positivo pequeno);/(sem impacto); - (Impacto negativo); * (não pode ser avaliado).

Appendix XI: Interview Script for University Community

(University Community)

Q.ID. no. _____

My name is Nilza Aurora Tarcísio César, I work at the Faculty of Education of Eduardo Mondlane University, in the Department of Teacher Training and Curricular Studies. My PhD research title is 'An Examination of the Suitability of PADev as a Method for Effective Participatory Assessment of Development of Higher Education Institutions: The Case of Eduardo Mondlane University (1976-2016)'. In the study, I seek to assess the suitability of the PADev tool to access in a participatory way the development of the Eduardo Mondlane in order to capture the changes that have occurred over time and the factors that have influenced such changes.

All the information provided will be treated confidentially and will only be used for the purposes of this research, so feel free to answer the questions. Let me know if there are any questions that you do not understand. If for some reason you do not want to continue, please interrupt me to terminate the interview. Shall we continue?

Circle the answers before beginning the interview.

Name (Optional) _____
Gender of respondent: 1. Male 2. Female
Age Range: 1. ≥29 2. 30-49 3. ≤50
Professional Category: _____

A. INTRODUCTION

1. In what year did you join Eduardo Mondlane University?
2. What body/sector/department is involved in EMU?
3. What role do you play or have you performed since your employment with EMU?
4. What is your occupational category?
5. What is your academic and professional background?
6. Describe your career path?
7. Have you collaborated with other departments, colleges, or institutions? If so, which ones? What kind of collaboration?

B. HISTORICAL EVENTS

1. Which events occurred in the country, region, and world that has had an impact in the university/faculty/centre? (Make a retrospective and listing of landmark events that occurred in the remote past to the present day.
2. How was the occurrence of each of the above events reflected in the university/faculty/centre?

C. CHANGES

1. What significant changes have occurred in the institution since the time EMU/faculty/centre were linked?
2. What is the reason for these changes?
3. Which sectors are affected by the changes?
4. What factors influenced the occurrence of such changes?
5. What actors were behind the occurrence of such changes?

6. What was the role played by these actors?

7. What effect did each of these changes have on the institution?
8. How did you assess each of the changes? Why?

D. DEVELOPMENT INTERVENTIONS

1. Are you aware of the initiatives or development interventions that have been implemented in EMU since you joined the university/faculty/centre? If so, which ones? (Explain what should be understood by development initiatives or interventions, and exhaust the participant's recollection in the list of interventions).
2. What is/was the duration of these interventions?
3. What is the nature of these interventions?
4. What are the objectives of these interventions?
5. Which sectors/groups have benefited from these interventions?
6. What were these benefits?
7. Who were the financiers of these interventions?
8. Who was behind the implementation of these interventions?

E. EVALUATION OF DEVELOPMENT INTERVENTIONS

1. How would you evaluate each of the projects you mentioned in terms of their impact? (Present the scale and its meaning: very positive, positive, neutral, negative, very negative) Why?
2. What is/was in your opinion the most important intervention? Because?
3. What are/were in your opinion the five best interventions? Because?
4. What are/were in your opinion the five worst interventions? Because?

F. RELATIONSHIP BETWEEN CHANGES AND DEVELOPMENT INTERVENTIONS

1. Can you relate to the changes previously mentioned with the interventions listed?
2. For each change, say what intervention was in its origin or solution? As?
3. In what way is intervention related to change (cause, consequence)?

G. IMPACT OF THE UNIVERSITY/COLLEGE/CENTRE

1. What is the impact of the University/Faculty/Centre on the quality of education and the various aspects of development in Mozambique?
2. What is the impact of the University/Faculty/Centre on academic-scientific excellence?
3. What is the impact of the University/Faculty/Centre on emancipation regarding gender relations, minority groups?
4. What are the most important stakeholders/partners of the University/Faculty/Centre?

This is the end of the interview. Thank you so much for spending part of your time attending this interview. Is there anything else would you like to share? Do you have any questions about the study?

Appendix XII: Interview script for Local Professional Associations and Organisations

(Local Professional Associations and Organisations)

E.ID. no. _____

My name is Nilza Aurora Tarcísio César, I work at the Faculty of Education of Eduardo Mondlane University, in the Department of Teacher Training and Curricular Studies. My PhD research title is 'An Examination of the Suitability of PADev as a Method for Effective Participatory Assessment of Development of Higher Education Institutions: The Case of Eduardo Mondlane University (1976-2016)'. In the study I seek to assess the suitability of the PADev tool to access in a participatory way the development of the Eduardo Mondlane in order to capture the changes that have occurred over time and the factors that have influenced such changes.

All the information provided will be treated confidentially, and will only be used for the purposes of this research, so feel free to answer the questions. Let me know if there are any questions that you do not understand. If for some reason you do not want to continue, please interrupt me to terminate the interview. Shall we continue?

Circle the answers before beginning the interview.

Name (Optional) _____
Gender of respondent: 1. Male 2. Female
Age Range: 1. ≥29 2. 30-49 3. ≤50
Institution: _____
Nature: 1. Public 2. Private
Position: _____
Nationality: _____

A. ENTITY PROFILE

1. What is the name and nature of the organisation/association?
2. What are the objectives of the organisation/association?
3. What are the areas of activity of the organisation/association?

B. AREA OF INTERVENTION

1. Does the organisation/association relate in any way to the University/Faculty/Centre?
2. What is the nature and size of the relationship that the organisation/association and the University/Faculty/Centre have?
3. How long has this relationship been in force?
4. Which area/sector of the University/Faculty/Centre benefits from this relationship? As?
5. Are you aware of any changes that have occurred in the University/Faculty/Centre resulting from this relationship? If so, which ones?

C. DEVELOPMENT INTERVENTIONS (If applicable)

1. Is there any initiative that was or is being supported by the organisation/association were or are they being implemented at the University/Faculty/Centre? If so, which ones?
2. What is the main objective of the initiative?
3. What is the scope of this initiative in terms of the target group?

4. What is the duration of this initiative?
5. Who is responsible for implementing the initiative?
6. What results have been achieved or are expected to achieve with this initiative(s)?

D. EVALUATION OF DEVELOPMENT INTERVENTIONS (If applicable)

1. Has the initiative been subject to any evaluation (internal or external)? If yes, at what time?
2. What was the object of evaluation?
3. What was the result of the evaluation?

E. CHANGES (If applicable)

1. Are you aware of any change (s) in the University/Faculty/Centre of the implementation of this initiative (s)? If so, which ones?
2. In what specific areas/sectors did the changes take place?
3. Is there any relationship between the changes that have occurred and the initiative (s) implemented? If so, which one?
4. What is the vision of the organisation/association about the impact of the initiative in the University/Faculty/Centre?
5. What impacts can the University/Faculty/Centre produce as a result of this initiation (s)?

F. THE IMPACT OF THE UNIVERSITY/COLLEGE/CENTRE

1. What is the role of EMU in your view?
2. How relevant are the courses that EMU/faculty offers to the society of Mozambique? Because?
3. Does EMU/faculty graduate profile meet labour market demand?
4. Does EMU/faculty graduate's theoretical and practical skills meet the expectations of the employer?
5. Is it possible to measure the impact of EMU/faculty/centre in the Mozambican society? If yes, how?

This is the end of the interview. Thank you so much for spending part of your time attending this interview. Is there anything else would you like to share? Do you have any questions about the study?

Appendix XIII: Interview script for Local and Foreign Education Partners

(Local and Foreign Education Partners)

I.ID. no. _____

My name is Nilza Aurora Tarcísio César, I work at the Faculty of Education of Eduardo Mondlane University, in the Department of Teacher Training and Curricular Studies. My PhD research title is 'An Examination of the Suitability of PADev as a Method for Effective Participatory Assessment of Development of Higher Education Institutions: The Case of Eduardo Mondlane University (1976-2016)'. In the study I seek to assess the suitability of the PADev tool to access in a participatory way the development of the Eduardo Mondlane in order to capture the changes that have occurred over time and the factors that have influenced such changes.

All the information provided will be treated confidentially, and will only be used for the purposes of this research, so feel free to answer the questions. Let me know if there are any questions that you do not understand. If for some reason you do not want to continue, please interrupt me to terminate the interview. Shall we continue?

Circle the answers before beginning the interview.

Name (Optional) _____
Gender of respondent: 1. Male 2. Female
Age Range: 1. ≥29 2. 30-49 3. ≤50
Institution: _____
Nature: 1. Public 2. Private
Position: _____
Nationality: _____

A. PROFILE OF THE REPRESENTATIVE ENTITY

1. What is the nature of the entity?
2. What are the objectives of the entity?
3. What are the areas of activity of the entity?

B. VISION ON THE ROLE OF HIGHER EDUCATION INSTITUTIONS

1. What is the 'development' vision adopted by the institution/agency?
2. What expectations does the institution/agency have regarding the role of higher education Institutions (and in particular EMU) in relation to this vision of development?
3. What initiatives have been created/encouraged by the institution/agency involving EMU so that this vision of development takes shape?
4. What are the objectives of this initiative (s)?
5. What is the period of validity of the initiative (s)?
6. What is the target group of this initiative (s)? (university/school/centre)
7. Has the initiative (s) already been subject to any type of evaluation? If so, which one?
8. What was the outcome of this evaluation? (If applicable)
9. What changes have occurred in the university/faculty/centre resulting from the implementation of this initiative (s)?

10. What effects of the change occurred in the university/faculty/centre?

C. IMPACT OF EDUARDO MONDLANE UNIVERSITY

1. What is the institution/agency's perception on:
    - Relevance of MUE courses in the current context?
    - Profile of graduates in the labour market?
    - Relationship between EMU and the surrounding community/society in general?
2. What is the institution/agency's vision regarding:
    - The impact of EMU on the quality of education;
    - Impact of EMU on academic and scientific excellence;
    - Impact of EMU on emancipation.

This is the end of the interview. Thank you so much for taking time to answer the questions. Is there anything that has not been addressed and you would like to share? Do you have any questions about the study?

Appendix XIV: Interview script for Alumni

(Alumni)

E.ID. no. _____

My name is Nilza Aurora Tarcísio César, I work at the Faculty of Education of Eduardo Mondlane University, in the Department of Teacher Training and Curricular Studies. My PhD research title is 'An Examination of the Suitability of PADev as a Method for Effective Participatory Assessment of Development of Higher Education Institutions: The Case of Eduardo Mondlane University (1976-2016)'. In the study I seek to assess the suitability of the PADev tool to access in a participatory way the development of the Eduardo Mondlane in order to capture the changes that have occurred over time and the factors that have influenced such changes.

All the information provided will be treated confidentially, and will only be used for the purposes of this research, so feel free to answer the questions. Let me know if there are any questions that you do not understand. If for some reason you do not want to continue, please interrupt me to terminate the interview. Shall we continue?

Circle the answers before beginning the interview.

Name (optional): _____

Faculty (Alumnus): _____

Graduation Year: _____

Course: _____

Work Place: _____

Gender: 1. Male _____ 2. Female_____

Age Group: 1. ≥29_____
2. 30-49 _____
3. ≤50 _____

A. INTRODUCTION

1. When were you admitted to Eduardo Mondlane University?
2. Which faculty did you enrol in?
3. Which course did you attended?
4. What is your academic degree?
5. What was your student status (fulltime, part-time student)?
6. What is your current professional status?
7. Describe your career path after the completion of your degree?

B. DEVELOPMENT INTERVENTIONS AND CHANGES

1. Are you aware of any initiatives implemented in the university/faculty that have benefited the students? If so, which ones?
2. What was the initiative in question?
3. Who was behind this initiative (entity, person)?

4. What impact did the initiative have? (If applicable)
5. How would you assess this initiative (positive or negative)? Because?
6. Are you aware of any changes arising from the implementation of this initiative?
7. How would you rate this change (positive or negative)? Because?

C. IMPACT OF EDUARDO MONDLANE UNIVERSITY

1. What is your perception of:
- Relevance of the course you graduate from in the current context?
- Your profile as graduate in relation to the labour market demand?
- The usefulness of your course for the country's development needs?

2. What is your vision regarding:
- The impact of EMU on the quality of education;
- Impact of EMU on academic and scientific excellence;
- Impact of EMU on emancipation?

This is the end of the interview. Thank you so much for taking time to answer the questions. Is there anything else that has not been addressed but you would like to share? Do you have any questions about the study?

Appendix XV: Questionnaire

(University Community)

Q.ID. no. _____

My name is Nilza Aurora Tarcísio César, I work at the Faculty of Education of Eduardo Mondlane University, in the Department of Teacher Training and Curricular Studies. My PhD research title is 'An Examination of the Suitability of PADev as a Method for Effective Participatory Assessment of Development of Higher Education Institutions: The Case of Eduardo Mondlane University (1976-2016)'. In the study I seek to assess the suitability of the PADev tool to access in a participatory way the development of the Eduardo Mondlane in order to capture the changes that have occurred over time and the factors that have influenced such changes.

The information collected through this questionnaire should cover only the period you work for the institution. The data will be used only for the purposes of the study, and the identity of the informants will not be revealed under any circumstances, thus ensuring anonymity and privacy of the study sources.

INFORMANT PROFILE

Name (optional): _____

Organic Unit: _____

Period of relationship with the institution (organic unit): _____

Gender of respondent: 1. Male _____ 2. Female _____

Age Range: 1. ≥29 _____ 2. 30-40 _____3. ≤50 _____

I. HISTORICAL EVENTS

List the most striking events you can remember that have occurred in Mozambique, the region, and the world, and which in your opinion have had some impact on EMU (in your organisational unit). These events may be of a political, economic, social, or other nature.

Decade	Year	Description of the event	Effect on the Institution[78] (EMU)

II. CHANGES

List the great changes that you remember that occurred at the university and its organic unity from the time you joined the institution (organic unit).

Year	Sector[79]	Major Change	Reasons of the Change	Effect on the Institution[80] (EMU/Faculty/Centre)
		1		

[78] University, Faculty, Centre.
[79] Human Resources, Academic, Infrastructure, and Administration and Management.
[80]Faculdade, Escola, Sector, Direcção.

III. AVAILABILITY OF CHANGES

Evaluate, using this five-level scale (++, +, 0, -, -), the changes you indicated in section II, which are here numbered, by placing an X in the square you think appropriate, taking into account the effect on the institution (organic unit).

Major Change	++ (Very Positive)	+ (Positive)	0 (Neutral)	- (Negative)	-- (Very Negative)	Reason for the Evaluation
1						

IV: DEVELOPMENT INTERVENTIONS

Indicate in the table below the development interventions (programmes, projects, funds, partnerships and other initiatives) that you remember and that have been implemented in the Institution.

Sector	Name/Description of the Intervention	Funding Agency/ Implementer	Duration of the Intervention	Effects on the Institution
	1			

V: EVALUATION OF DEVELOPMENT INTERVENTIONS

Evaluate, using this six-level scale (++, +, 0, -, -, /), the projects you indicated in section IV, and which are numbered here, by placing an X in the square you think appropriate, taking into account its impact.

Intervention	++ (Very Positive)	+ (Positive)	0 (Neutral)	- (Negative)	-- (Very Negative)	/ (No Opinion)	Reasons for the Evaluation
1							

VI: GOOD/MORE INTERVENTIONS

Indicate with an X those interventions that are/were in your opinion the best and the worst, the most important, and state the reasons for your choice.

Interventions	Good	Bad	Most important	Reasons of your choice
1				

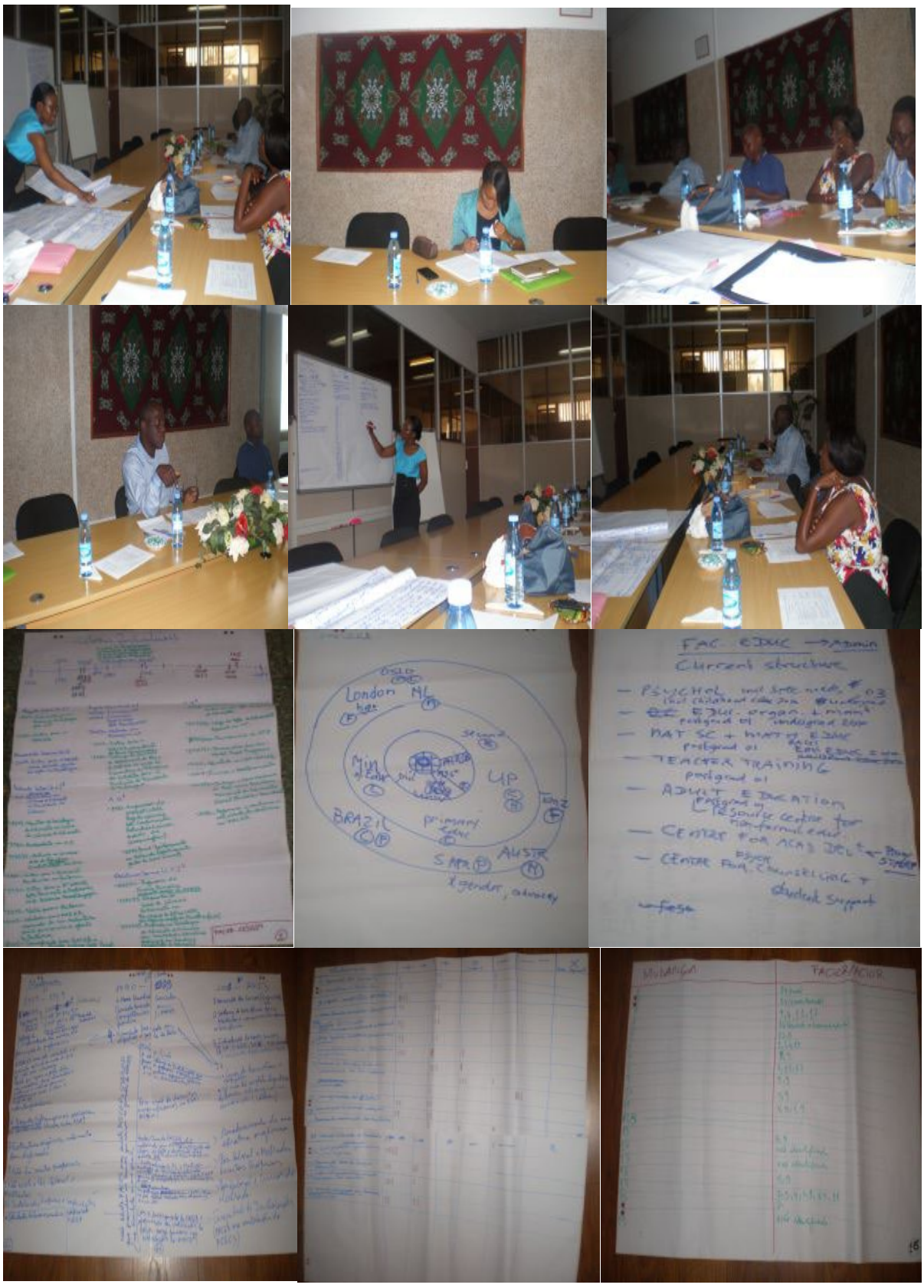
VII: RELATIONSHIP BETWEEN CHANGES AND INTERVENTIONS (PROJECTS)

List each change (section II) and the development intervention (section IV) you believe contributed to its occurrence or mitigation.

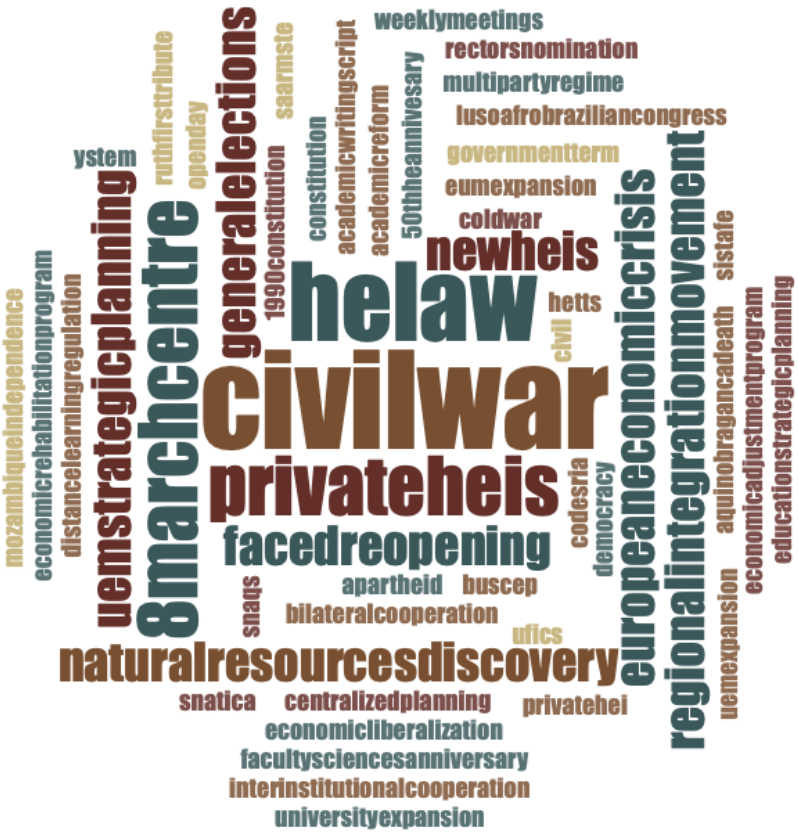
Change	Causative or mitigating intervention.	Reason why you relate particular change to specific intervention
1		

This is the end of the questionnaire. Thank you very much for taking the time to complete the questionnaire.

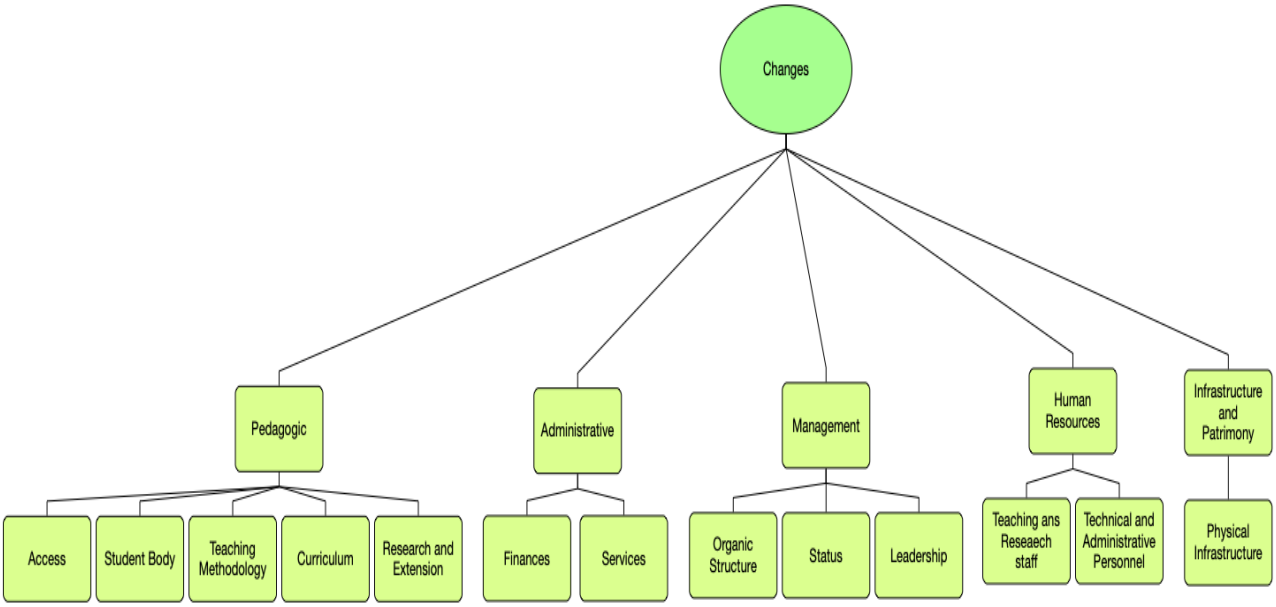
Appendix XVI: Pictures of PADev Workshops (Faculty of Education)



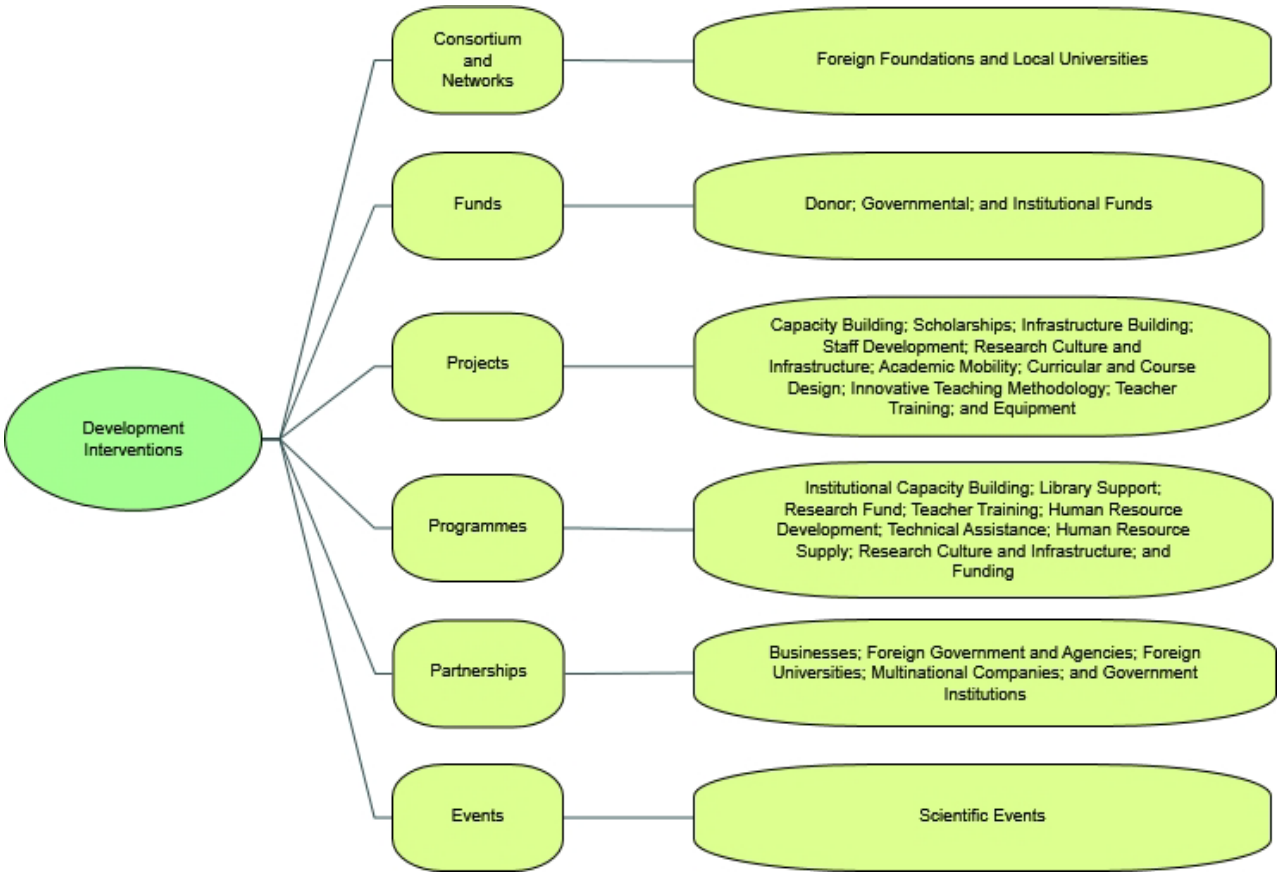
Appendix XVII: Cloud of Historical Events



Appendix XVIII: Mind Map of Major Changes



Appendix XIX: Development Interventions



Appendix XX: Programmes and Projects Implemented at EMU

1. NUFFIC Programmes (1985-2015)

No.	Programme Name	Programme Focus	Implementing Unit
1	Programme for University Development Cooperation (PUO) (1970-1989)	Development support to universities in developing countries	Faculty of Agronomy, Veterinary, Medicine, and Engineering
2	Inter-institutional Cooperation Programme (SV) (1989-1992)	University projects in development cooperation (concentration on a limited number of universities abroad)	
3	Joint Financing Programme for Cooperation in Higher Education (MHO) (1993-2004)	Institution building, and human resources development	Central services of EMU, centres and faculties: Computer Centre (CIUEM), Centre for Electronics and Equipment, Academic Register, Office for External Relations (Cooperation Office), Faculty of Agronomy and Forestry Engineering, Veterinary and Animal Production, Sciences (Departments of Biology, Basic Sciences, and Geology), Engineering (Departments of Civil Engineering and Electrical Engineering), and Medicine.
4	Netherlands Programme for Institutional Strengthening of Post-Secondary Education and Training Capacity (NPT) (2002-2013)	Capacity development, and staff professional development	EMU
5	Netherlands Initiative for Capacity Development in Higher Education (NICHE) (2008 onwards)	Higher education governing structures, including management and sector co-ordination capacities; strengthening of Technical and Vocational Education and Training (TVET) and alignment with the labour market	Faculty of Education, Faculty of Engineering, ESNEC, ESUDER.

Source: Juvane & Van Baren (1996).

2. PUO/SV Projects

No.	Project Name	Starting Year	Partner Institution	Implementing Unit
1	Plant, soil, and water project	1985	Landbouw Universiteit Wageningen	Faculty of Agronomy
2	Basic University Sciences (BUSCEP)	1985	Vrije Universiteit Amsterdam	Faculty of Agronomy
3	Herd Health and applied Physiology	1986	Utrecht University	Faculty of Medicine
4	Informatics Centre (CIUEM)	1987	Delft University of Technology	CIUEM
5	Water Resources Engineering	1987	Delft University of Technology	Faculty of Engineering
6	Staff Development Project (STADEP)	1988	University of Groningen	Faculty of Education
7	Teaching and Research in Biology	1989	University of Groningen	Faculty of Agronomy
8	Geology and Geochemistry	1992	Utrecht University	Faculty of Sciences

Source: Juvane& Van Baren (1996).

3. MHO Projects

No.	Project Name	Starting Year	Partner Institution	Implementing Unit
1	Electro-technical Engineering	1994	Delft University of Technology	Faculty of Engineering
2	Medical Physiology	1994	Vrije Universiteit Amsterdam	Faculty of Medicine
3	Museology	1996	ReinwAc	Faculty of Arts
4	ARIS	1994-1997	Delft University of Technology	CIUEM
5	RUMA	2000-2004	Vrije Universiteit Amsterdam	EMU
6	MOZTEP	2001-2004	University Amsterdam	Faculty of Education
7	MODELS	2001-2004	University of Twente, Vrije Universiteit Amsterdam	Faculty of Education, CDA
8	TEPMED	1995-2004	Vrije Universiteit Amsterdam	Faculty of Medicine
9	EMU-ICT	2000-2003	Vrije Universiteit Amsterdam	EMU

Source: Juvane& Van Baren (1996); CIS (2008)

4. NPT Projects

No.	Project Name	Starting Year	Partner Institution	Implementing Unit
1	Teacher training using innovative learning methods	2004-2006	Maastricht University	Catholic University of Mozambique
2	Set-up of a structured and coherent HE (sub)sector (CHESS)	2004-2007	University of Twente	Ministry of Education and Culture
3	Support for teacher-training programmes	2004-2007	Free University of Amsterdam/CIS	Eduardo Mondlane University & Pedagogic University
4	Good governance and public administration	2004-2007	Institute for Social Sciences	Academy of Police Sciences, Higher Institute of Public Administration, Higher Institute of International Relations, Eduardo Mondlane University
5	Support for the establishment of new polytechnics	2004-2007	Van Hall Larenstein	Ministry of Education and Culture
6	Capacity building in ICT	2006-2009	University of Groningen	Ministry of Education and Culture
7	Support to HIV/Aids research programmes	2005-2009	Maastricht University/MUNDO	Ministry of Education and Culture
8	Capacity building for innovative learning methods (phase 2)	2006-2010	Maastricht University/MUNDO	Catholic University of Mozambique
9	Consolidation of the Polytechnic Institutes in Gaza, Manica, and Tete	N/A	N/A	Polytechnic Institutes(Gaza, Manica, and Tete)

Source: Matos & van Baren (2007)

5. NICHE Projects

No.	Project Name	Project ID	Starting Year	Partner Institution	Implementing Unit
1	JI – Water & sanitation curricula at EMU	INNOCAP-MOZ-291		Delft University of Technology	ESUDER
2	Introduction of water and sanitation curricula at EMU	NICHE-MOZ-024		Delft University of Technology	Faculty of Sciences
3	Designing and implementing a master's course in Family and Community Psychotherapy	NICHE-MOZ-029		Maastricht University	Faculty of Education
4	Introduction of student-centred teaching strategies at the Faculty of Education	NICHE-MOZ-030		Maastricht University	Faculty of Education
5	Development of a sustainable Trade Academy	NICHE-MOZ-031-090		Technical Assistance for Sustainable Trade and Environment	ESNEC
6	Introduction of student-centred learning	NICHE-MOZ-032-089		Maastricht University	Faculty of Education
7	Innovative ways to transfer technology and know-how, developing skills and expertise for gas, renewable energy, and management	NICHE-MOZ-231-263		University of Groningen	Faculty of Engineering of EMU, Superior Polytechnic Institute of Songo, Catholic University of Mozambique, University of Lúrio

Source: EP-NUFFIC (2017)

6. Italian Cooperation Programmes (1978-2015)

No.	Programme Type	Programme Focus	Implementing Unit
1	Cooperation Programme (1978-1980)	Collaboration of Italian technicians	Faculties of Sciences, Engineering, Economy, and Agronomy.
2	University Cooperation Programme (Phase 1) (1981-1982)	Teachers' professional development and scientific research	Faculty of Sciences (Departments of Geology and Biology) and Faculty of Medicine
3	University Cooperation Programme (Phase 2) (1983-1998)	Technical collaboration, installation of the Faculty of Architecture and Physical Planning, scholarships, and technical and logistic support	Faculty of Agronomy and Forestry Engineering, Faculty of Architecture and Physical Planning
4	Institutional Strengthening Programme (2000-2006)	Transfer of resources	Faculties of Architecture, Agronomy, and Medicine
5	EMU Support programme for Academic Reform, Technological Innovation and Scientific Research (2012-2017)	Strengthening the central bodies of Eduardo Mondlane University in different areas	EMU's Central Services

Source: UEM (1986), UEM (2014)

7. Italian Cooperation Projects (2012-2015)

No.	Project Name	Implementing Unit
1	Enhancing the efficiency of management bodies	Office of the Academic Vice-Rector and Office of the Vice-Rector for Administration and Resources
2	Strengthening the academic quality of EMU	Pedagogic Directorate and CECAGE
3	Enhancing efficiency and improving the quality of courses and teaching programmes	CIUEM and Pedagogic Directorate
4	Reinforcement of the training offer	Pedagogic and Scientific Directorates
5	Strengthening EMU's capacities to promote scientific research	Scientific Directorate

Source: UEM (2013a)

8. SIDA Projects

No.	Programme Name	Implementing Unit
1	Technology Processing on Natural Resources	Faculty of Engineering
2	Integrated Water Resource Management – Quantitative and Qualitative Aspects of IWRM for Sustainable Development in Southern Mozambique	Faculty of Engineering & Faculty of Sciences
3	Energy Science and Technology	Faculty of Sciences
4	A Global Research Programme in Mathematics, Statistics & Informatics	Faculty of Sciences
5	Development of Research Culture and Capacity in Education	Faculty of Education
6	Strengthening of Biological and Oceanographic Research Capacity at the Department of Biological Sciences	Faculty of Sciences
7	Medical Radiation Physics	Faculty of Sciences
8	Environment and Climate Research Programme	Faculty of Sciences
9	MSc Programme in Chemistry and Processing of Local Resources	Faculty of Sciences
10	MSc Programme in Food Technology	Faculty of Engineering
11	MSc Programme in Mineral Resources Management	Faculty of Sciences
12	Strengthening the role of the marine biology research station on Inhaca Island for research on sustainable management of coastal and marine habitats	Faculty of Sciences

Source: Kruse (2017)

9. World Bank Projects (1988-2015)

No.	Project ID	Project Name	Project Focus	Implementing Unit
1	P001763	First Education Project: Education and Manpower Development Project (1988)	Training upgrade (engineers, economists), technical assistance, laboratory assembling, library materials and equipment provision, assessment and curriculum advice, and temporary teaching staff.	Faculty of Engineering, and Faculty of Economics of EMU
2	P001776	Second Education Project (1990)	Improvement of the quality and efficiency of Eduardo Mondlane University.	Faculty of Sciences, Engineering, and Economics of EMU
3	P001797	Capacity Building Human Resources Development Project (1992)	Improvement of the number and quality of secondary school graduates and higher education professionals.	EMU
4	P001786	Education Sector Strategic Programme Project (1999)	Provision of increased and equitable access to higher quality education.	Ministry of Education and Culture (MEC)
5	P069824	Higher Education Project (2002)	Institutional Development and Investment.	EMU
6	P105205	MZ Higher Education Project (Supplemental) (2007)	Institutional Development and Investment.	Faculty of Engineering of EMU
7	P111592	Higher Education Science and Technology (2010)	increasing the number and quality of higher education graduates, and strengthening of the national research capacities	Ministry of Science and Technology Higher and Technical and Professional Education (MCTESTP)
8	P125127	MZ Education Sector Support Programme (2011)	Improvement of the access to quality and equity of education	Ministry of Education and Human Development (MINEDH)
9	P124729	MZ-AF to Education Sector Support Project (2012)	Improvement of the access to quality and equity of education.	MINEDH
10	P151185	Mozambique Additional Financing for Education Sector Support Project (2015)	Improvement of the access to quality and equity of education	MINEDH
11	P146602	Additional Financing for Mozambique Higher Education Science and Technology Project (2015)	Increasing the number and quality of higher education graduates, and strengthening of the national research capacity	MCTESTP

Source: The World Bank: Projects (worldbank.org)

10. NUFU's Projects

No.	Project Name	Project Focus	Partner Institution	Implementing Unit
1	Establishing MSc Programmes in the Petroleum Sector at African Universities (NUFUPRO-2007/10120)	To establish MSc education in petroleum geoscience, to establish a geophysical research centre in Mozambique, and to improve collaboration between the partner universities	The Norwegian University of Science and Technology	Faculty of Engineering
2	Ore Forming Potential of the Tete Complex and Sustainable Management of Mineral Deposits in Mozambique (NUFUPRO-2007/10167)	To equip Mozambique with human capital to study, characterise, and exploit its mineral wealth from environmental and economic perspectives	The Norwegian University of Science and Technology	
3	Small Scale Concentrating Solar Energy Systems (NUFUPRO-2007/10190)	To contribute to capacity building in the field of solar energy at African universities	The Norwegian University of Science and Technology, the Addis Ababa University (Ethiopia), and Makerere University (Uganda).	Faculty of Sciences
4	Standardisation and Harmonisation of Cross-border Languages (NUFUPRO-2007/10225)	To develop, harmonise, and standardise cross-border languages found in Mozambique and Zimbabwe, which have been broken up by political boundaries	The University of Oslo and the University of Zimbabwe	African Studies Centre

Source: SIU (2013: 23, 24).

11. *Desafio* Projects

No.	Project Name	Project Focus	Implementing Unit
1	Human Rights	The human rights aspects of reproductive health	EMU's Law Faculty with Ghent University
2	Social Rights and Human Protection	Social rights in the domain of reproductive health, including social protection	EMU's Law Faculty and the University of Ghent
3	Gender and Family Health	The gender aspect of reproductive health, together with other sociocultural aspects such as family issues and traditional medicine	EMU's Faculty of Arts and Social Sciences and the Free University of Brussels
4	Reproductive Health	High maternal mortality (safe motherhood) and cervical cancer	EMU's Faculty of Medicine and the University of Ghent
5	HIV/AIDS/STI Prevention and Treatment	HIV/AIDS epidemic, including the related problem of STI	EMU's Faculty of Arts and Social Sciences and the University of Antwerp
6	Capacity Building	ICT strengthening, support for the library, strengthening of training and research skills of staff and academic English	Scientific Directorate of EMU and the University of Ghent
7	Bio-statistics and Modelling	Strengthening the statistical unit of the faculty vis-à-vis conducting methodological research and providing methodological support for research activities in the thematic projects.	Faculty of Sciences and the University of Hasselt

Source: Van Baren and Mosca (2012)

Appendix XXI: English Abstract

Abstract

This study examines the suitability of the participatory assessment of development method - PADev - employed at Eduardo Mondlane University (EMU), in Mozambique. The assessment of the development of EMU is both socially and academically relevant. As the first established national university that trained manpower and produced scientific knowledge, its impact was meaningful for the consolidation of the newly acquired independence and the construction of the Mozambican nation and society. Academically, EMU represents a historic milestone in the establishment of the higher education system in Mozambique. Therefore, EMU's development influenced the development of the higher education system itself and the legal and regulatory framework that enabled the emergence of other higher education institution in Mozambique.

Using the participatory approach to assess the institution's development path implies applying a long-term evaluation perspective that allows tracking changes, factors, and actors that influence the wider context of institutional transformation and its impact. In so doing, a broader picture of the development and change has been constructed. The assessment outcomes are useful at the very least in a twofold way: (i) gathering information on the improvements in the institutional decision-making process, and (ii) improving the implementation of programmes and projects.

The study has examined the suitability of the PADev method for effective participatory assessment of the development of EMU, addressing the following research question: *In what ways can the PADev method of assessing development and change at EMU in a participatory way be effective in measuring the impact of development interventions at EMU?* Specifically, the study investigated: *i. Which development interventions were implemented at Eduardo Mondlane University between 1976 and 2016? ii. How did the development interventions change Eduardo Mondlane University between 1976 and 2016? iii. What is the stakeholders' assessment of the impact of development interventions at EMU?*

A non-probabilistic sample design employing a purposive sampling strategy was applied for the selection of the study units, using the following criteria: (i) period of existence, (ii) the relevance of the study field, and (iii) the volume of support received. Six units were selected amongst academic, research and administrative units, specifically the Faculty of Education, the Faculty of Sciences, and the Faculty of Engineering, the African Studies Centre, the Centre for Academic Development, and the Central Services.

A non-proportional quota sampling strategy was employed for the selection of study participants. A prior stratification of the study population was performed. The criteria for the selection of participants included: (i) gender, (ii) occupational category, (iii) function, and (iv)

contractual regime. Four categories of participants have been involved in the study, namely the directorate's board, staff (academic and non-academic), alumni, and external stakeholders.

A combination of methods was employed for data collection so as to triangulate and elicit meaningful information. It included the review of relevant documentation, semi-structured interviews, focus groups through PADev workshops, open-ended questionnaires, and 'crowdwriting'. Content analysis of the data was performed. Data processing entailed the transcription and systematisation of the data in an Excel database format. The transcripts were imported, coded, systematised, and analysed using NVivo 12. The data analysis enabled the generation of analytical categories, and identification of the emerging patterns and themes to sustain the interpretation.

The findings of the study were aggregated in compliance with the objectives set. With regard to the primary question: *In what ways can the PADev method of assessing development and change at EMU in a participatory way be effective in measuring the impact of development interventions at EMU?* The results showed that the PADev method alone for data gathering did not fully suit the assessment of a higher education institution like EMU when it comes to measuring the impact of development interventions, regardless of its set of tools to do so. Human factors did influence and determined the level of the methods' effectiveness. Additional methods were required to complement its efficacy. Despite this limitation, the scope of PADev tool enabled the contextualised reconstruction of the institution's history from the perspective of the university community. In addition, PADev created a platform for social interaction among the study participants, promoted collective learning, and produced knowledge about the context, factors and actors promoting change. The feasibility as well as the usefulness of the PADev approach as an alternative approach for assessing change and development of a given area, specifically an organisational context was proven undeniable, since it provides a holistic, long-term, and shared view on development. Despite its virtues, an effective use of the PADev method demands, from the participants, a strong commitment, engagement and historical knowledge towards the PADev objectives and results. At EMU, this proved to be a problem due to the limited availability of key informants, their lack of commitment, and their limited experiential and factual knowledge.

With regard to the first part (*i*) of the question – *Which development interventions were implemented at Eduardo Mondlane University between 1976 and 2016?* – six categories of interventions were identified, namely consortium and networks, funds, projects, programmes, partnerships, and events. Whereas the category of consortium and networks involves foreign foundations and local universities, the category of partnerships includes businesses, foreign governments and agencies, foreign universities, multinational companies, and local governmental institutions. There were referred three types of funds: donor, governmental, and institutional. Projects include capacity building, infrastructure, staff development, research infrastructure, international mobility, curriculum design, teaching innovation, scholarships, training, and equipment. Programmes goals include institutional capacity building, library

support, research funding, teacher training, human resources development, technical assistance, human resources supply, research culture and infrastructure, and general funding. Events, specifically scientific events, give external visibility and show the scientific production of the institution.

Concerning the second part (*ii*) of the research question – *How did the development interventions change Eduardo Mondlane University between 1976 and 2016?* – the results show that the occurrence of the changes relates to international, regional, and national events, of political, social, economic, and environmental nature and circumstances. Amongst those, are the Independence of Mozambique (1975) and the Civil War (1977-1992), the enactment of the Higher Education Law 1/93 (1993), the new higher education institutions (after 1993), the First General Election (1994)), EMU's Strategic Development Plan (1998), and the World Economic Crisis (2008). The Independence of Mozambique triggered a reactive sequence of events, and these highly influenced EMU's transformation and development path. The Independence of Mozambique and the nationalisation policy adopted afterwards resulted in the decline of the number of university teaching staff and students, mainly Portuguese teachers and students and discontinuation of some courses. These circumstances led the university to open up to the outside world to ensure technical, material and financial support to perform its mission. The Civil War prevented the expansion of the university across provinces, as part of the physical infrastructure was destroyed. Since the provision of public higher education was initially limited to EMU located in Maputo city, the university candidates from all over the country moved to Maputo, generating pressure on the housing stock, and leading EMU to expand its housing infrastructure.

The changes that transformed EMU resulted from various local initiatives and external interventions, mainly programmes (MHO, NPT, Italian Cooperation, SIDA, and *Desafio*), projects (CBP, BUSCEP, and NICHE-032), and donor funds (FDI and FNI). Staff development, infrastructure building, curriculum development and others resulted from the implementations of some of the referred initiatives and interventions. The impact of the interventions might be perceived differently according to the intervention's scope, but from a holistic perspective, the interventions' outcomes has produced a measurable impact on the institutional effectiveness.

Regarding the third part (*iii*) of the research question – *What is the stakeholders' assessment on the impact of development interventions at EMU?* – the study revealed that the stakeholder's assessment of the impact of the external interventions, mainly based on the usefulness, relevance, and long-term effect, was positive. Stakeholders' valuation of the interventions was influenced by personal and institutional gains. They were more likely to rate as 'positive' the interventions implemented in their own units with long-term effects. That is the case of MHO and SIDA, which they perceived as contributing to the internationalisation of the university, along with promoting local changes and fostering institutional development. Notwithstanding the previous, stakeholders valued negatively those interventions, such as the Bologna

Curriculum Reform, that, from their perspective, had led to institutional crises, discontinuous change, and paradigmatic shifts.

One overall conclusion stands out: despite the many foreign funded interventions and the limited financial support from the Government of Mozambique, decision-making towards the institutional growth was very much a 'local' affair. In the first decade after the country's Independence, the university sought to establish itself as a Mozambican institution, train its teaching staff and establish its teaching programs with the technical and financial support of foreign partnerships. After 1990, with a more consolidated academic and administrative structure, EMU's leadership and decision-making processes became more democratic and participatory.

Appendix XXII: Dutch Abstract

Samenvatting

Deze studie onderzoekt de geschiktheid van de participatieve beoordelingsmethode van ontwikkeling – PADev – toegepast aan de Eduardo Mondlane Universiteit (EMU) in Mozambique. De beoordeling van de ontwikkeling van EMU is zowel maatschappelijk als academisch relevant. EMU was de eerste nationale universiteit die werd opgericht, en die geschoolde arbeidskrachten opleidde en wetenschappelijke kennis produceerde. De impact van de instelling was betekenisvol voor de consolidatie van de pas verworven onafhankelijkheid en de opbouw van de Mozambikaanse natie en samenleving. Academisch gezien vormt EMU een historische mijlpaal in de oprichting van het hoger onderwijssysteem in Mozambique. De ontwikkeling van EMU beïnvloedde dan ook de ontwikkeling van het hoger onderwijssysteem zelf en het juridische en regelgevende kader dat de opkomst van andere instellingen voor hoger onderwijs in Mozambique mogelijk maakte.

Het gebruik van een participatieve benadering om het ontwikkelingstraject van de instelling te beoordelen, impliceert een lange termijnevaluatie die veranderingen, factoren en actoren traceert die het bredere kader van institutionele transformatie en de impact daarvan beïnvloeden. Op die manier is een breder beeld van de ontwikkeling en verandering geconstrueerd. De uitkomsten van de beoordeling zijn minstens op twee manieren nuttig: (i) het verzamelen van informatie over de verbeteringen van het besluitvormingsproces binnen de instelling, en (ii) het verbeteren van de uitvoering van programma's en projecten.

De studie onderzocht de geschiktheid van de PADev-methode voor een effectieve participatieve beoordeling van de ontwikkeling van EMU, waarbij de volgende onderzoeksvraag centraal stond: Op welke manieren kan de PADev-methode voor participatieve beoordeling van ontwikkeling en verandering aan EMU effectief zijn in het meten van de impact van ontwikkelingsinterventies aan EMU?

Specifiek onderzocht de studie:
i. Welke ontwikkelingsinterventies werden tussen 1976 en 2016 aan de Eduardo Mondlane Universiteit uitgevoerd?
ii. Hoe veranderden de ontwikkelingsinterventies EMU tussen 1976 en 2016?
iii. Wat is de beoordeling van de stakeholders (belanghebbenden) over de impact van ontwikkelingsinterventies aan EMU?

Voor de selectie van de onderzoekseenheden werd een niet-probabilistisch steekproefontwerp toegepast, met een doelgerichte steekproefstrategie, op basis van de criteria: (i) bestaansduur, (ii) relevantie van het studiegebied, en (iii) de hoeveelheid ontvangen steun. Zes eenheden werden geselecteerd onder academische, onderzoeks- en administratieve eenheden: de

Faculteit Onderwijs, de Faculteit Natuurwetenschappen, de Faculteit Techniek, het Afrika-Studiecentrum, het Centrum voor Academische Ontwikkeling en de Centrale Diensten.

Voor de selectie van de deelnemers werd een niet-proportionele steekproefstrategie toegepast. De onderzoekspopulatie werd vooraf gestratificeerd. De selectiecriteria voor de deelnemers waren: (i) gender, (ii) beroepscategorie, (iii) functie, en (iv) type contract. Vier categorieën van deelnemers werden betrokken: het bestuur, medewerkers (academisch en niet-academisch), alumni en externe belanghebbenden.

Een combinatie van methoden werd toegepast voor dataverzameling voor triangulatie en om het verkrijgen van betekenisvolle informatie mogelijk te maken. Dit omvatte de analyse van relevante documentatie, semigestructureerde interviews, focusgroepen via PADev-workshops, open vragenlijsten en 'crowd writing'. De inhoudsanalyse van de data werd uitgevoerd met behulp van transcriptie en systematisering van gegevens in een Excel-database. De transcripties werden ingevoerd, gecodeerd, gesystematiseerd en geanalyseerd met NVivo 12. De analyse maakte het mogelijk analytische categorieën te genereren en patronen en thema's te identificeren om de interpretatie te ondersteunen.

De bevindingen van het onderzoek zijn geaggregeerd volgens de gestelde doelstellingen. Met betrekking tot de hoofdvraag – *Op welke manieren kan de PADev-methode effectief zijn bij het meten van de impact van ontwikkelingsinterventies aan EMU?* – toonden de resultaten aan dat de PADev-methode op zichzelf niet volledig voldeed om de impact van ontwikkelingsinterventies binnen een hoger onderwijsinstelling zoals EMU te meten, ongeacht de beschikbare instrumenten. Menselijke factoren beïnvloedden en bepaalden de mate van effectiviteit van de methode. Aanvullende methoden bleken nodig om de effectiviteit te versterken. Ondanks deze beperking maakte de PADev-tool het mogelijk om de geschiedenis van de instelling vanuit het perspectief van de universitaire gemeenschap te reconstrueren. Daarnaast bood PADev een platform voor sociale interactie tussen deelnemers, stimuleerde het collectief leren en leverde kennis op over de context, factoren en actoren die verandering bevorderden. De haalbaarheid en bruikbaarheid van de PADev-aanpak als een alternatieve benadering voor het beoordelen van verandering en ontwikkeling in een organisatorische context werd onmiskenbaar bewezen, aangezien zij een holistische, lange termijn- en gedeelde visie op ontwikkeling biedt. Een effectieve toepassing vraagt echter van deelnemers een sterk engagement, betrokkenheid en historische kennis met betrekking tot de doelstellingen en resultaten van de PADev-studie. Bij EMU bleek dit problematisch door de beperkte beschikbaarheid van sleutel-informanten, hun geringe betrokkenheid en hun beperkte ervaring en feitelijke kennis.

Wat het eerste deel (i) van de onderzoeksvraag betreft – *Welke ontwikkelingsinterventies werden uitgevoerd aan de EMU tussen 1976 en 2016?* – werden zes categorieën onderscheiden: consortia en netwerken, fondsen, projecten, programma's, partnerschappen en evenementen. Consortia en netwerken omvatten buitenlandse stichtingen en lokale universiteiten; partnerschappen betreffen bedrijven, buitenlandse overheden en agentschappen, buitenlandse

universiteiten, multinationale ondernemingen en lokale overheidsinstellingen. Er waren drie soorten fondsen: donor-, overheids- en institutionele fondsen. Projecten omvatten capaciteitsopbouw, infrastructuur, personeelsontwikkeling, onderzoeksinfrastructuur, internationale mobiliteit, curriculumontwerp, onderwijsinnovatie, beurzen, trainingen en uitrusting. Programma's hadden doelen zoals institutionele capaciteitsopbouw, bibliotheekondersteuning, onderzoeksfinanciering, lerarenopleiding, personeelsontwikkeling, technische assistentie, personeelsvoorziening, onderzoekscultuur en infrastructuur, en algemene financiering. Evenementen, met name wetenschappelijke conferenties, bieden externe zichtbaarheid en tonen de wetenschappelijke productie van de instelling.

Wat het tweede deel betreft van de onderzoeksvraag(ii) – *Hoe veranderden de ontwikkelingsinterventies de Eduardo Mondlane Universiteit tussen 1976 en 2016?* – blijkt uit de resultaten dat de veranderingen verband hielden met internationale, regionale en nationale gebeurtenissen en omstandigheden van politieke, sociale, economische en ecologische aard. Belangrijke gebeurtenissen waren onder andere: de onafhankelijkheid van Mozambique (1975) en de burgeroorlog (1977-1992), de invoering van de Wet op het Hoger Onderwijs 1/93 (1993), de oprichting van nieuwe instellingen voor hoger onderwijs (na 1993), de eerste algemene verkiezingen (1994), het Strategisch Ontwikkelingsplan van EMU (1998), en de wereldwijde economische crisis (2008). De onafhankelijkheid van Mozambique veroorzaakte een reeks gebeurtenissen die EMU's ontwikkeling en transformatie sterk beïnvloedden. De onafhankelijkheid en het daaropvolgende nationalisatiebeleid leidden tot een daling van het aantal docenten en studenten, voornamelijk Portugese, en tot het stopzetten van sommige opleidingen. Dit dwong de universiteit om zich open te stellen voor de buitenwereld voor internationale technische, materiële en financiële steun om haar missie uit te voeren. De burgeroorlog verhinderde de uitbreiding van de universiteit in de provincies buiten Maputo en vernietigde een deel van de infrastructuur. Omdat hoger onderwijs aanvankelijk alleen in Maputo beschikbaar was, leidde dit tot migratie van studenten uit het hele land, waardoor er druk op de huisvesting ontstond en EMU gedwongen werd zijn voorzieningen uit te breiden.

De transformaties van EMU vloeiden voort uit lokale initiatieven en externe interventies, voornamelijk programma's (MHO, NPT, Italiaanse Samenwerking, SIDA en Desafio), projecten (CBP, BUSCEP en NICHE-032), en donorfondsen (FDI en FNI). Personeelsontwikkeling, infrastructuur, curriculumontwikkeling en andere veranderingen vloeiden voort uit de uitvoering van deze initiatieven en interventies. De impact ervan kan verschillend worden gezien, afhankelijk van het bereik van de interventie, maar in een holistisch perspectief leverden de resultaten een meetbare bijdrage aan de institutionele effectiviteit.

Wat het derde deel van de onderzoeksvraag betreft (iii) – *Hoe beoordelen belanghebbenden de impact van de ontwikkelingsinterventies op de EMU?* – liet de studie zien dat stakeholders de impact van externe interventies overwegend positief beoordeelden, vooral met betrekking tot nut, relevantie en langetermijneffect. Hun waardering werd beïnvloed door persoonlijke en institutionele voordelen. Interventies in de eigen faculteit of eenheid met blijvende effecten

werden positiever beoordeeld, zoals MHO en SIDA, die naar hun idee bijdroegen aan de internationalisering van de universiteit, naast het bevorderen van lokale veranderingen en institutionele ontwikkeling. Negatief gewaardeerd werden interventies zoals de Bologna-curriculumhervorming, die volgens stakeholders had geleid tot crises, onderbroken verandering en paradigmatische verschuivingen.

Een algemene conclusie springt eruit: ondanks de vele door het buitenland gefinancierde interventies en de beperkte financiële steun van de Mozambikaanse overheid, was de besluitvorming rond de groei van de instelling grotendeels een 'lokale' aangelegenheid. In het eerste decennium na de onafhankelijkheid probeerde de universiteit zich te vestigen als een Mozambikaanse instelling, haar docenten op te leiden en opleidingen te ontwikkelen met buitenlandse financiële steun en partnerschappen. Na 1990, met een meer geconsolideerde academische en administratieve structuur, werden de besluitvormingsprocessen van EMU democratischer en meer participatief.

Appendix XXIII: Portuguese Abstract

Resumo

Este estudo examina a adequabilidade do método de avaliação participativa de desenvolvimento - PADev - empregue na Universidade Eduardo Mondlane (UEM), em Moçambique. A avaliação do desenvolvimento da UEM é social e academicamente relevante. Como primeira universidade nacional estabelecida que formou mão-de-obra e produziu conhecimento científico, o seu impacto foi significativo para a consolidação da independência recém-adquirida e a construção da nação e da sociedade moçambicanas. Academicamente, a UEM representa um marco histórico no estabelecimento do sistema de ensino superior em Moçambique. Portanto, o desenvolvimento da UEM influenciou o desenvolvimento do próprio sistema de ensino superior e o quadro legal e normativo que permitiu o surgimento de outras instituições de ensino superior em Moçambique.

Utilizando a abordagem participativa para avaliar o percurso de desenvolvimento da instituição implica aplicar uma perspetiva de avaliação de longo prazo que permita acompanhar as mudanças, os fatores e os atores que influenciam o contexto mais amplo da transformação institucional e o seu impacto. Assim, constrói-se um panorama mais abrangente do desenvolvimento e da mudança. Os resultados da avaliação são úteis de duas formas: (i) recolher informação sobre as melhorias no processo de tomada de decisões a nível da instituição e (ii) melhorar a implementação de programas e projectos.

O estudo examinou a adequação do método PADev para uma avaliação participativa eficaz do desenvolvimento da UEM, abordando a seguinte questão de investigação: *De que forma o método PADev para avaliar o desenvolvimento e a mudança na UEM de forma participativa pode ser eficaz na medição do impacto das intervenções de desenvolvimento na UEM?* Especificamente, o estudo investigou: *i. Que intervenções de desenvolvimento foram implementadas na Universidade Eduardo Mondlane entre 1976 e 2016? ii. Como é que as intervenções de desenvolvimento mudaram a Universidade Eduardo Mondlane entre 1976 e 2016? iii. Qual é a avaliação das partes interessadas sobre o impacto das intervenções de desenvolvimento na UEM?*

Para a seleção das unidades de estudo, recorreu-se a um desenho amostral não probabilístico, utilizando uma estratégia de amostragem intencional, observando os seguintes critérios: (i) período de existência, (ii) relevância da área de estudo e (iii) volume de apoio recebido. Foram selecionadas seis unidades académicas, de investigação e administrativas, nomeadamente a Faculdade de Educação, a Faculdade de Ciências e a Faculdade de Engenharia, o Centro de Estudos Africanos, o Centro de Desenvolvimento Académico e os Serviços Centrais.

Foi utilizada uma estratégia de amostragem por quotas não proporcional para a seleção dos participantes do estudo. Foi realizada uma estratificação prévia da população estudada. Os

critérios para a seleção dos participantes incluíram: (i) género, (ii) categoria profissional, (iii) função e (iv) regime contratual. Participaram no estudo quatro categorias de participantes: a direção, os funcionários (docentes e não docentes), os antigos alunos e os *stakeholders* externos.

Uma combinação de métodos foi empregue para a recolha de dados, de forma a triangular e extrair informação significativa. Tal incluiu a revisão de documentação relevante, entrevistas semi-estruturadas, grupos focais através de *workshops* PADev, questionários abertos e escrita colectiva. Foi feita a análise de conteúdo dos dados. O processamento dos dados envolveu a sua transcrição e sistematização numa base de dados Excel. As transcrições foram importadas, codificadas, sistematizadas e analisadas com recurso ao programa NVivo 12. A análise dos dados permitiu a geração de categorias analíticas e a identificação de padrões e temas emergentes para sustentar a interpretação.

Os resultados do estudo foram agregados em conformidade com os objetivos definidos. Relativamente à questão principal: *De que forma o método PADev para avaliar o desenvolvimento e a mudança na UEM de forma participativa pode ser eficaz na medição do impacto das intervenções de desenvolvimento na UEM?* Os resultados mostraram que o método PADev por si só para a recolha de dados não se adequava totalmente à avaliação de uma instituição de ensino superior como a UEM quando se trata de medir o impacto das intervenções de desenvolvimento, independentemente das ferramentas que dispõe para o fazer. Factores humanos influenciaram e determinaram o nível de eficácia dos métodos, tornando-se necessário métodos adicionais. Apesar desta limitação, a ferramenta PADev permitiu a reconstrução contextualizada da história da instituição a partir da perspetiva da comunidade universitária. Além disso, o PADev criou uma plataforma para a interação social entre os participantes do estudo, promoveu a aprendizagem coletiva e produziu conhecimento sobre o contexto, os fatores e os atores que promovem a mudança. A viabilidade e utilidade da abordagem PADev como alternativa para avaliar a mudança e o desenvolvimento de um contexto organizacional, foram inegáveis, por proporcionar uma visão holística, de longo prazo e partilhada sobre o desenvolvimento. Apesar das suas virtudes, a utilização eficaz do método PADev exige, dos participantes, um forte cometimento, empenho e conhecimento histórico em relação aos objetivos e resultados do PADev. Na UEM, isto revelou-se um problema devido à disponibilidade limitada de informadores-chave, à falta de cometimento e ao limitado conhecimento experiencial e factual.

Relativamente à primeira parte (i) da questão – *Que intervenções de desenvolvimento foram implementadas na Universidade Eduardo Mondlane entre 1976 e 2016?* – foram identificadas seis categorias de intervenções, a saber: consórcios e redes, fundos, projetos, programas, parcerias e eventos. Enquanto a categoria dos consórcios e redes envolve fundações estrangeiras e universidades locais, a categoria das parcerias inclui empresas, governos e agências estrangeiras, universidades estrangeiras, empresas multinacionais e instituições governamentais locais. Foram referidos três tipos de fundos: doadores, governamentais e

institucionais. Os projectos incluem formação, infra-estruturas, desenvolvimento profissional do pessoal, infra-estruturas de investigação, mobilidade internacional, concepção de currículos, inovação educacional, bolsas de estudo, formação e equipamento. Os objectivos dos programas incluem capacitação institucional, apoio às bibliotecas, financiamento da investigação, formação de professores, desenvolvimento de recursos humanos, assistência técnica, cultura e infra-estruturas de investigação, e financiamento geral. Os eventos, especificamente os eventos científicos, dão visibilidade externa e mostram a produção científica da instituição.

Relativamente à segunda parte (ii) da questão de investigação – *Como é que as intervenções de desenvolvimento alteraram a Universidade Eduardo Mondlane entre 1976 e 2016?* – os resultados mostram que a ocorrência das mudanças está relacionada com acontecimentos internacionais, regionais e nacionais, de natureza e circunstâncias políticas, sociais, económicas e ambientais. Entre eles, a Independência de Moçambique (1975), a Guerra Civil (1977-1992), a promulgação da Lei do Ensino Superior 1/93 (1993), as novas instituições de ensino superior (após 1993), as Primeiras Eleições Gerais (1994), o Plano Estratégico da UEM (1998) e a Crise Económica Mundial (2008). A Independência de Moçambique desencadeou uma sequência reativa de acontecimentos, e estes influenciaram fortemente a transformação e o percurso de desenvolvimento da UEM. A política de nacionalização adoptada logo após resultou no declínio do número de docentes e estudantes universitários, de origem portuguesa, e na descontinuidade de alguns cursos. Estas circunstâncias levaram a universidade a abrir-se para o mundo para garantir apoio técnico, material e financeiro. A Guerra Civil impediu a expansão da universidade nas províncias, dado que parte da infraestrutura física foi destruída. Como a oferta de ensino superior público se limitava inicialmente à UEM, localizada na cidade de Maputo, candidatos de todo o país mudaram-se para Maputo, gerando pressão sobre o parque habitacional e levando a UEM a expandir as suas infraestruturas.

As mudanças que transformaram a UEM resultaram de diversas iniciativas locais e intervenções externas, principalmente programas (MHO, TNP, Cooperação Italiana, SIDA e Desafio), projectos (CBP, BUSCEP e NICHE-032) e fundos de doadores (IDE e FNI). O desenvolvimento profissional do pessoal, a construção de infra-estruturas, o desenvolvimento curricular e outros resultaram da implementação de algumas dessas iniciativas e intervenções. O impacto das intervenções pode ser percebido de forma diferente de acordo com o seu âmbito, mas numa perspetiva holística, os resultados das intervenções produziram um impacto mensurável na eficácia institucional.

Relativamente à terceira parte (iii) da questão de investigação – *Qual a avaliação das partes interessadas sobre o impacto das intervenções de desenvolvimento na UEM?* – o estudo revelou que a avaliação das partes interessadas sobre o impacto das intervenções externas, principalmente com base na utilidade, relevância e efeito a longo prazo, foi positiva. A avaliação das intervenções foi influenciada pelos ganhos pessoais e institucionais. Estas eram propensas a classificar positivamente as intervenções com efeitos de longo prazo implementadas nas suas próprias unidades. São os casos do MHO e SIDA, percebidos como

tendo contribuído para a internacionalização da universidade, para além de promoverem mudanças locais e fomentarem o desenvolvimento institucional. Não obstante o anterior, as partes interessadas avaliaram negativamente intervenções como a Reforma Curricular de Bolonha, que, na sua perspectiva, conduziram a crises institucionais, a mudanças descontínuas e paradigmáticas.

Uma conclusão geral se destaca: apesar das inúmeras intervenções com financiamento estrangeiro e do limitado apoio financeiro do Governo de Moçambique, a tomada de decisões para o crescimento institucional era em grande parte uma questão "local". Na primeira década após a independência do país, a universidade procurou consolidar-se como uma instituição moçambicana, formar o seu corpo docente e estabelecer os seus programas de ensino com o apoio técnico, material e financeiro de parcerias estrangeiras. Após 1990, com uma estrutura académica e administrativa mais consolidada, a liderança e os processos de tomada de decisão da UEM tornaram-se mais democráticos e participativos.

Appendix XXIV: Curriculum Viate

Curriculum vitae

Nilza Aurora Tarcísio César (1977, Maputo-Mozambique) completed her high school education (Social Sciences and Humanities Section) in 1995, at Francisco Manyanga Secondary School, in Maputo, Mozambique. She holds a Bachelor in Social Sciences (2001), and is graduated in Sociology, both degrees from the Social Sciences Training and Research Unit at Eduardo Mondlane University, Mozambique, in 2003. She holds, since 2008, a Master degree in Research Methodologies by coursework from the Faculty of Education of the University of Sydney - Australia. Her PhD journey initiated in 2013, when enrolled at the Faculty of Social and Behavioural Sciences at the University of Leiden - The Netherlands. Her PhD research on Institutional Development Assessment was carried out at the African Studies Centre at Leiden University (ASCL). Her research focuses on evaluating the effectiveness of the PADev method as a tool to assess, in a participatory manner, the development of Eduardo Mondlane University, tracking the factors and actors that influenced the changes that catalyzed such development. While in Leiden, her time was spent among different activities that included attending CERES courses, an intensive course for training PhD researchers, supervision meetings, independent research, participation in seminars and conferences. Nilza is currently the deputy dean for undergraduate studies at the Faculty of Education at Eduardo Mondlane University, and, as a junior researcher, integrates research teams in the field of gender, education and technologies. In order to further her professional career, she recently participated in a professional development course for teacher trainers offered by Arizona State University, USA, in partnership with OPEN (The Online Professional English Network).