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# Chapter 5

## **The role of research in university teaching: Comparing practices of master's thesis supervisors from China and the Netherlands<sup>5</sup>**

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mean to supervise a master's thesis? A comparison of Chinese and Dutch practices.

## **Abstract**

We explored which learning outcomes supervisors of master's theses in two cultures wanted their students to achieve and how supervisors helped students to achieve these learning outcomes. Semi-structured interviews were conducted with ten Chinese and ten Dutch supervisors from university language and culture departments. With regard to identified learning outcomes, the Chinese and the Dutch supervisors highly resembled each other: Both considered the development of research competencies (e.g., critical disposition, research process, academic writing) to be the core learning outcomes. Clear differences were nevertheless also observed and reflected in the intention of the Chinese supervisors to prepare their students for a future job versus the Dutch supervisors' aim of preparing students to function in a rapidly changing, increasingly complex and often uncertain world (i.e., research thinking, foster student well-being). With regard to the support reported to be provided by the supervisors, the Chinese and Dutch supervisors again resembled each other in that they both employed a variety of support types. They nevertheless differed in how they used certain types of support. For example, the Chinese supervisors generally reported more overt assessment and control as a reported form of support, while the Dutch supervisors reported being much more covert about this and frequently posing questions to monitor student process and well-being. Dutch supervisors, in contrast to Chinese supervisors, also considered providing emotional support to be important. Our findings thus provided a concrete picture of the actual integration of research into teaching. The differences found between the two groups of supervisors in this interview study may have their roots in differing educational traditions, differing social-economic conditions in the two countries and differing education systems. The differences identified can be particularly helpful for supervisors to become more aware of possible areas of conflict for students from different cultural backgrounds. In addition, the variety of intended learning outcomes and support reported by the Chinese and the Dutch supervisors provides a reference for teachers to integrate research into other types of university teaching, which could involve less student involvement and in parts of a research process.

## 5.1 Introduction

As Healey (2005, p. 183) puts it, “linking research and teaching is a topic of international interest.” Both the Humboldtian tradition of education through research (cf. Simons & Elen, 2007) and, e.g., the Boyer recommendation (Boyer Commission, 1998) call for the engagement of university students in research and thereby integration of research and teaching. This is because the unity of research and teaching represents the academic identity of the modern university, but also because research and teaching are thought to be mutually beneficial (Neumann, 1992; Robertson & Blackler, 2006; Robertson & Bond, 2001). In addition, combining research and teaching introduces a new way of teaching and learning which will more adequately prepare college students to function in an ever changing, often uncertain and increasingly complex world (Brew 2003).

Previous studies have focused on either the correlation between research productivity and teaching effectiveness as separate activities (e.g., Hattie & Marsh 1996) or academic's beliefs about how the domains of research and teaching should, in principle, relate (e.g., Neumann 1992). A concrete picture of how research and teaching actually connect at the university is thus not available.

One way of gaining insight into the actual integration of research and teaching is to examine university programmes which are already aimed at engaging students in research. These can be found — for instance — in the UK (e.g., Healey, 2005), Australia (e.g., Brew, 2003) and the Netherlands (van der Rijst et al., 2013). Particularly, in the master's programmes at many institutions, the students must conduct their own research under the guidance of a supervisor. Therefore, as similarly argued by Clark (1997), the supervision of master's theses can serve as natural locales of a tight blending of research activities, teaching activities and student learning.

### 5.1.1 Student perspectives

Students perceive many benefits of involvement in a research intensive environment. These include learning from staff research; perceiving research staff and courses as having greater credibility than non-research staff and courses; enthusiastic staff; and the glory of being taught by well-known researchers (e.g., Healey, Jordan, Pell, & Short, 2010). Students involved in undergraduate research projects have been found to better understand the nature of research and to develop the necessary research skills in addition to sometimes perceiving benefits for their future employment (Healey et al., 2010; Hunter, Laursen, & Seymour, 2007). Higher levels of intellectual development have also been reported (Healey & Jenkins, 2009). And on the basis of the results of a recent study, van der Rijst et al. (2013) concluded that involvement in research projects can increase student motivation and writing about research stimulates the development of a research disposition (i.e., critical inquiry). For the master's theses, Anderson, Day and

McLaughlin (2006) pointed out gains such as making a contribution to knowledge, mastering research skills, adopting an active defence of one's stance on a topic, and benefits of a questioning and analytical view for student professional practice.

Students also perceive disadvantages of being involved in the research intensive environments. The experienced disadvantages may include: feeling excluded from the research community (Robertson & Blackler, 2006; Zamorski, 2002); frustration at not being able to see the relevance of ongoing research to current learning (Robertson & Blackler, 2006); and unavailability of staff (Healey et al., 2010).

The disadvantages of involvement in a research intensive environment for students imply a field of tension between research and teaching. The disadvantages also suggest that new ways of combining and integrating research and teaching must be sought.

### *5.1.2 Teacher perspectives*

Little is known about the capacity of teachers to combine research with teaching to make students capable of critical inquiry. Both teachers and students have been repeatedly reported to think that there should be a positive connection between research and teaching (Neumann, 1992; Robertson & Blackler, 2006). However, other researchers have reported no correlation whatsoever between research quality (i.e., productivity) and teaching quality (i.e., student evaluations) (e.g., Hattie & Marsh, 1996). Recent discussion on the relationship between research and teaching shifted its focus on research integration into teaching in forms of inquiry based learning (Brew, 2003) and undergraduate research projects (Healey, 2005). Particularly, Healey (2005) proposed a model with four ways of research integration into the curricula: research-led; research-oriented; research-based; research-tutored. In line with this model, Healey and Jenkins (2009) reported a variety of undergraduate research projects in universities from the UK, the US, Canada and Australia.

Although the need to integrate research and teaching is recognized at most universities today, just how this should be done is quite unclear for many teachers. What learning outcomes should students achieve when research and teaching are combined? What support should teachers provide when research and teaching are combined?

Even less is known about how teachers from Asian and non-Western countries deal with the challenge of integrating research and teaching. Western educational practices are becoming dominant throughout the world (Grigorenko, 2007) and Western educational ideas are travelling fast between nations (Dang, 2013), which means that teachers in non-Western countries may be struggling with the same issues as teachers in Western countries. However, Asian and European/Western countries have very different educational traditions, social-economic conditions and corresponding education systems (cf. Altbach, 2009),

which means that comparison of how they combine research and teaching may be particularly informative.

### **5.1.3 Research questions**

In this chapter, we took the supervision of master's theses as a case in point, and examined the integration of research and teaching in China and the Netherlands. We investigated the learning outcomes which Chinese and Dutch supervisors considered to be important for their students, on the one hand, and how supervisors helped their students achieve these learning outcomes, on the other hand. In such a manner, we were also able to explore the similarities and differences between the Chinese and Dutch supervisors and provide greater insight into the ways in which research and teaching are integrated in higher education. We posed the following research questions.

- What learning outcomes do Chinese and Dutch supervising teachers want their master's students to achieve through a master's thesis?
- How do Chinese and Dutch supervising teachers support their master's students to achieve these learning outcomes?

## **5.2 Educational traditions in China versus the Netherlands**

China and the Netherlands differ radically with regard to their educational traditions and respective education systems.

The Chinese educational tradition has been largely shaped by Confucian teaching with its emphasis on 1) moral education and the cultivation of benevolence as the ultimate goals of education (Niu, 2007); 2) the importance of knowing through reflection (Wong, 2011); and 3) the emulation of those who have achieved supremacy of virtue and intellectual development (i.e., one's seniors) (Yang, 1993). Chinese education and particularly the Imperial Examination system (IE) have relied upon rote learning and memorization of the Confucian classics as the primary instructional methods, while exam results which are based on this instruction are used to appoint high-ranking officials (cf. Hayhoe & Zha, 2006; Niu, 2007). This tradition has existed for a long time in Chinese history and still plays a role in the current Chinese education in the form of the National College Entrance Exam (NCEE), which determines not only college admission but also the later social and economic status of individuals (cf. Niu, 2007). That is, higher education in China today is primarily used as an instrument to stimulate economic development and produce a sufficiently educated work force for the rapidly developing economy (Hayhoe & Zha, 2006). In keeping with this, enrolments in higher education have greatly increased in China since 1998 (Wang & Liu, 2011).

In contrast, Western education has been shaped by the teachings of the ancient Greek philosophers and primarily aimed at 1) the pursuit of objective knowledge via scientific inquiry and 2) use of the Socratic method (i.e., the

systematic exchange of questions and answers) (cf. Hummel, 1994). Within this system, the teacher ideally does not impart information directly to students but, rather, encourages students to examine and explain their assumptions, ideas and answers to questions which they have also posed themselves (Shim, 2008). A later but equally important development in the goals of Western education can be found in the Humboldtian tradition for universities, which emphasizes the development of personality or, in other words, the inner self which is considered individualistic, self-motivated and non-utilitarian (Pritchard, 2004). Within this tradition, the unity of research and education is also emphasized for the production of not only knowledge but also the development of the core competencies needed by students to become productive citizens (Simons & Elen, 2007).

### **5.3 Organization of thesis supervision in China versus the Netherlands**

In the Chinese context, though with variances among universities, master's students are often supervised in small groups which include several (between three to five) students. The quality of the thesis has to be approved normally by one academic from the student's own university and another from a different university. The approval is required before the students can defend a thesis, and only when the thesis has been successfully defended is a master's degree awarded. In most Chinese universities, the thesis is an important part of a three-year master's programme although some programmes take only two years. Usually the students formulate the research proposal half way through the programme and complete the thesis during the final year. The supervisor-student relationship is established upon admission to the programme. The supervisor supervises the completion of the entire master's programme and particularly the thesis.

In the Dutch context, master's students are typically supervised individually. The supervisor and a second reader (often from the same university and not involved in the supervision process) together determine the final grade for the thesis, which is an important part of the one-year master's programme and the research master's which can sometimes take two years (de Kleijn, Mainhard, Meijer, Pilot, & Brekelmans, 2012). Students can 'shop around' at the beginning of the second semester to find a thesis supervisor. This is done on the basis of the student's interests and the expertise of the supervisor. Students at Dutch universities may also attend research seminars, courses and thesis workshops which address methods of data analysis and academic writing prior to the start of their thesis. Most programmes also provide a thesis guide or outline of the steps for completing the thesis.

## 5.4 Method

Semi-structured interviews were conducted with Chinese and Dutch thesis supervisors. All interviews were audiotaped and lasted an average of 50 minutes.

The interview guide consisted of two parts. Part one asked the supervisors about their experiences with the best master's thesis supervised by them to date. This was done in order to attain concrete examples of the learning outcomes identified by the supervisors and insight into how they helped their students achieve these outcomes. Part two asked about the learning outcomes which the supervisors would generally want their master's students to achieve, the ways in which they support the achievement of these outcomes and their perceptions of the relevance of the learning outcomes for the development of their students in the future.

Table 5.1  
*Supervisor background information*

Background		Chinese ( <i>n</i> = 10)	Dutch ( <i>n</i> = 10)
Expertise <sup>a</sup>	Linguistics	6	7
	Literature	2	3
	Language teaching	2	2
Gender	Male	5	5
	Female	5	5
Age (years)	31-40	3	1
	41-50	4	3
	51-60	3	5
	60+	0	1
Highest degree	Master's	5	2
	PhD	5	8
Study abroad	yes	8	8
Research experience (years)	5-10	1	3
	10+	9	7
Supervising experience (years)	1-3	1	2
	3-5	4	0
	5-10	3	2
	10+	2	6

*Note.*<sup>a</sup> Two of the Dutch supervisors reported expertise in two of the three categories.

The interview guide was piloted with experienced supervisors from the target universities in China and the Netherlands. The interviews with the Chinese

supervisors were conducted in Chinese. The interviews with the Dutch supervisors — who have more frequent exposure to English and are also more fluent in English than the Chinese supervisors — were conducted in English.

### ***5.4.1 Participants and sampling***

Ten thesis supervisors from a research university in a metropolitan area of Southwest China and ten experienced supervisors from four Dutch research universities were selected for interview. To minimize the possibility of disciplinary effects (cf. Stodolsky & Grossman, 1995), we only interviewed supervisors from the language and culture departments. An overview of the supervisor background information can be found in Table 5.1.

### ***5.4.2 Data analysis***

First, the interviews were transcribed verbatim and the Chinese interviews were then translated into English. The ATLAS.ti 5.2 qualitative analysis software was used to iteratively analyse the data. This included several phases. Starting with one of the interview transcripts, two researchers worked independently to identify interview fragments which referred to learning outcomes, then assigned descriptive codes to the selected fragments. The two researchers then discussed their descriptive codes until consensus were reached on the identification of fragments and descriptive codes.

Second, one of the researchers applied the same process to two other interview transcripts. Interview fragments referring to learning outcomes were identified. Interview fragments which referred to the support provided were also identified. The selected fragments were then assigned descriptive codes.

Third, the same researcher involved in the first two phases together with a third researcher categorized the descriptive codes to develop a tentative coding scheme. Using this coding scheme, the first researcher coded an additional three transcripts. New codes were created and categorized as needed, and the coding scheme was discussed and adjusted accordingly. After several rounds of such coding adjustment, the coding of all transcripts was complete and only a few new codes emerged from the data. The now relatively stable coding scheme was discussed among the researchers. And all of the interviews were then checked and some of them recoded in places.

As an additional step to ensure reliability of our analysis, we checked the inter-rater agreement, thus a fourth researcher was involved. The first and the fourth researcher both coded one-third of one Chinese and one-third of one Dutch interview transcript independent of each other. The results were compared and discussed to clarify any disagreement about the descriptions of the codes. After consensus was reached on the code descriptions, another round of coding was conducted by the same two researchers. For the third round of independent coding,

the strength of agreement was moderate (Landis & Koch, 1977) with a kappa of .60 and a rater agreement of 64.0%.

#### **5.4.3 Final coding scheme**

Five core categories emerged from the data concerned the intended learning outcomes: research competencies, general competencies, value of student research, student well-being and preparation for future career. Detailed descriptions of these five categories and illustrative examples can be found in Appendix 2.

Two core categories emerged for support: tangible and intangible support. Tangible support refers to supervising which deals directly with content and activities which can be seen or heard. Six subcategories of tangible support which ranged from teacher-focused to student-focused activities further emerged: teacher resources, lecture and tell, teacher modelling, discussion, posing questions and student tasks. Intangible support refers to supervising which does not deal directly with content or activities. Four subcategories of intangible support emerged from the data: adaptive supervision, assessment and control, emotional support and teacher dedication. More detailed descriptions of the two categories and illustrative examples can be found in Appendix 3a for tangible support and Appendix 3b for intangible support. Descriptions of the subcategories were also provided since they were complex and important to capture the variety of the support strategies.

### **5.5 Results**

Though the Chinese and the Dutch supervisors were more similar than different, we have chosen to report in detail on the differences, while just briefly mentioning the similarities between them. In relation to this choice, we have also focused on a selected number of subcategories with clear differences. This choice was *not* made to emphasize the differences, but to describe the richness of different learning outcomes intended and the different types of support provided by the Chinese and the Dutch supervisors. It should be noted that not all subcategories are covered in the illustrations following Table 5.2 and Table 5.3.

In the text, we refer to the individual supervisors as Chinese supervisor number 1 (C1), Chinese supervisor number 2 (C2), Dutch supervisor number 1 (D1), Dutch supervisor number 2 (D2), and so forth.

#### **5.5.1 Intended learning outcomes**

In general, the Chinese and Dutch supervisors were very similar: Both considered the development of research competencies to be among the core learning outcomes for students. The Chinese and Dutch supervisors also differed in several respects. The Chinese supervisors talked more about the development of general competencies and improved language abilities in particular. Both talked about the value of student research although the Chinese supervisors emphasized more the

importance of publishing while the Dutch supervisors focused more on knowledge contribution. They also clearly differed on what they considered the ultimate learning outcome: prepare students for their future career (China); student well-being and contribution to the knowledge base (the Netherlands).

In the following, we describe the similarities and differences for each category. These are also summarized in Table 5.2 from most similar (top) to most different (bottom). The number in the parenthesis following each subcategory refers to the number of supervisors who talked about that subcategory in their interview.

Table 5.2  
*Intended learning outcomes identified by Chinese versus Dutch supervisors for master's theses*

Core category	Chinese (n = 10)	Dutch (n = 10)
Research competencies	<ul style="list-style-type: none"> <li>• Research process (7)</li> <li>• Critical disposition (8)</li> <li>• Academic writing (8)</li> <li>• Independence/research (5)</li> <li>• Research interests (2)</li> </ul>	<ul style="list-style-type: none"> <li>• Research process (8)</li> <li>• Critical disposition (5)</li> <li>• Academic writing (7)</li> <li>• Independence/research (7)</li> <li>• Research interests (5)</li> </ul>
General competencies	<ul style="list-style-type: none"> <li>• Language abilities (7)</li> <li>• Social and communication skills (4)</li> <li>• Problem solving/logical thinking (4)</li> <li>• General knowledge (4)</li> <li>• Strict attitude (3)</li> </ul>	<ul style="list-style-type: none"> <li>• Language abilities (2)</li> <li>• General critical attitude (3)</li> <li>• Problem solving/dealing with complexity and pressure/organizing (5)</li> <li>• Oversee field (2)</li> <li>• Communication (1)</li> <li>• General knowledge (1)</li> <li>• Independence/general (1)</li> </ul>
Value of student research	<ul style="list-style-type: none"> <li>• Publish papers (5)</li> <li>• Contribution to the knowledge (3)</li> </ul>	<ul style="list-style-type: none"> <li>• Contribution to the knowledge (8)</li> <li>• Publish papers (3)</li> </ul>
Student well-being	<ul style="list-style-type: none"> <li>• Integrated education/sense of accomplishment (2)</li> </ul>	<ul style="list-style-type: none"> <li>• Confidence/self-esteem/sense of achievement/talent/satisfaction(6)</li> </ul>
Preparation for future career	<ul style="list-style-type: none"> <li>• Help to graduate/job opportunities/compete on the job market (10)</li> </ul>	<ul style="list-style-type: none"> <li>• Not an aim for MA education (2)</li> </ul>

### *Research competencies*

Research competencies was the most frequently mentioned core category of learning outcomes mentioned by both the Chinese and the Dutch supervisors. The mentioned competencies included learning about the entire process of doing research (e.g., choice of research topic and suitable research questions, critical reading of literature, study design, data collection, data analysis, clear writing and

presentation of results). They also included developing a critical disposition, developing independence in doing research and identifying own research interests. In the following, we have chosen to report in detail on these three subcategories.

*Critical disposition.* The focus of the individual supervisors varied at times, but they generally emphasized the importance of being critical along with the structure and coherence of academic writing.

They differed, however, on what they meant by 'critical'. The Chinese supervisors talked about critically examining the research literature to identify original research questions.

*After reading two articles in the same area on the same issue, can you see similar or opposite views? What are the connections between them, what is your view?(C3)*

The Dutch supervisors talked about putting forth good arguments when criticizing the research literature and encouraging students to disagree with their supervisors and the research literature.

*She has learned not to be afraid of criticizing existing literature. Even when that was written by one of the big names in the field. [...] the student has actually learned to say: okay even though Albert Einstein says it, I disagree, and this is why. (D3)*

There were also exceptions to the pattern observed for criticism. One Chinese supervisor indicated an intention to raise student awareness by pointing out that being critical was not picking at the faults of others: "You can either agree or disagree [...] students are here to do research, not to 'worship' the master pieces [by big names in the field]." (C9)

*Independence/research.* The Chinese and Dutch supervisors both talked about the intention for students to become independent researchers. However, the Dutch supervisors talked more about this being one of the most important learning outcomes and in conjunction with more phases of the research process than the Chinese supervisors.

*The idea is really that the student should work independently, be able to process literature independently, be able to write independently. (D9)*

*Research interests.* Both the Chinese and Dutch supervisors indicated that the students' own research interests had to be the starting point for their thesis. Nevertheless, only two of the Chinese supervisors explicitly mentioned this, while five of the ten Dutch supervisors did and also pointed out the aim of making students enthusiastic about research at the same time. The Dutch supervisors typically mentioned this point spontaneously and without prompting by the interviewer.

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*Aah, yes! to discover how nice it is to do research. (D2)*

*I always encourage students to write about something that they already feel passionate about, and if not passionate, highly interested. (D8)*

### *General competencies*

The supervisors also paid attention to the development of general competencies such as language abilities, knowledge acquisition, communication skills, problem-solving skills, coping with pressure and complexity and the development of a generally critical attitude. Some of these competencies were transferable from the research competencies also mentioned by the supervisors. For example, the ability to critically examine the research literature can grow into a more general ability to critically examine information in society.

On the whole, the Chinese supervisors talked more in length about the general competencies to be developed and sometimes referring to them as important. They also mentioned more subcategories of these competencies than the Dutch supervisors.

Of the Chinese supervisors: Seven mentioned the need to establish basic language skills; four mentioned this for social and communication skills; four mentioned this for problem solving abilities and logical thinking; four mentioned this for the students' general knowledge; and three mentioned this for a strict attitude (i.e., earnest, careful, hard-working). Language ability was considered a very important learning outcome by the Chinese supervisors.

*We require them to develop their language abilities, including reading, listening and speaking [...] many aspects, thus. (C1)*

The Dutch supervisors not only talked less in length and mentioned fewer subcategories of the general competencies, they also focused more on the cognitive aspects related to research thinking than the Chinese supervisors. Of the Dutch supervisors, five mentioned an ability to solve problems, deal with complexity, cope with pressure and/or organize work; two wanted students to have a comprehensive view of the field, namely, "oversee field" (D9), "helicopter view of things" (D10), and three mentioned the development of a generally critical attitude.

*They should be able to read something and not assume that it's right. [...] That is what we want from our students. They should be able to read and write and discuss critically and intelligently. (D3)*

Two of the Dutch supervisors also explicitly mentioned improving the language abilities, but only in the case of supervising international students.

### *Value of student research*

The Chinese supervisors mentioned the relevance of publication more often than the Dutch supervisors. Five mentioned the publication of papers as a way to measure and demonstrate the quality and value of the student research.

*I encourage them to publish in good quality journals, and it must be journals on the CSSCI [China Social Science Citation Index] list. (C9)*

The Dutch supervisors, in contrast, talked more about contributing to a particular body of knowledge and thus having new ideas/insights. Eight out of ten mentioned the student's own "contribution to the field of research" (e.g., D4) or adding "some original thoughts" (D2). Some of the Dutch supervisors mentioned that publication in a journal was an overly high standard for a master's thesis and that they only considered doing this for an exceptionally good thesis. One of the Dutch supervisors referred to publication as an "extra goal" and observed that "we try to get them to publish in real journals" (D5). One supervisor, however, strongly disagreed with this idea and said that publication in journals was "old fashioned" and the aim nowadays has changed its focus on students to gain "an overview of the field" (D9).

### *Student well-being*

The Chinese and Dutch supervisors clearly differed on student well-being as a learning outcome (i.e., student satisfaction, self-confidence, self-esteem, sense of achievement and development of talent). Six Dutch supervisors spontaneously mentioned some aspect of this. In the words of one:

*What I think is very important is [...] that they can develop themselves to the maximum. That's very important. [...] and that they are not frustrated because they have the feeling that they could have done much more or much better and we prevented them from doing that. That would be very bad. (D4)*

The Chinese supervisors rarely mentioned student well-being. On the occasions when they did, it was to develop not only the students' abilities but also their life values in order to make them "a person of integrity" (C2) or help them publish high-quality papers so that they could "have a great sense of accomplishment" (C9).

### *Preparation for future career*

The Chinese and Dutch supervisors differed most strongly with regard to the preparation of the student for a future career. All ten of the Chinese supervisors mentioned this as an intended learning outcome. They mentioned improving the student's competences for employability via the practice gained with the thesis or helping the student to job opportunities. The Chinese supervisors reported helping the student graduate. One Chinese supervisor stated "it is worth encouraging students to attend conferences. There are many potential job opportunities" (C3).

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In contrast, for eight of the ten Dutch supervisors, the intention to prepare students for a future job was only addressed implicitly, if at all, in the interviews. When they did this, it was largely as something which naturally happens at the end of the programme.

*The aim of an MA is not preparation for the [labour market] [...] I don't think the MA thesis is the best moment to prepare them for a job. (D9)*

When explicitly asked about the aim of preparing students for a future career/job, most of the Dutch supervisors responded that the aim of a master's thesis was to prepare students for their future personal or professional development.

*It's valuable in its own right. And it helps them to reflect upon their lives or life in general, upon the world, society, culture, language in ways which are perhaps not economically productive but certainly humanly enriching. (D8)*

Two other Dutch supervisors (D1 & D3) mentioned primarily the relevance of developing a critical attitude for the professional development of the students in the future.

The following interview information further shows the Chinese and Dutch supervisors to obviously be interested in helping their students graduate but for very different reasons. In the words of one Chinese supervisor:

*First of all, I help them graduate [...] The students are about to graduate soon. They are under great pressure to find a job. Writing the thesis has become part of the requirement for graduation, not just something they wanted to do from the heart. They are forced to write [a thesis]. (C6)*

Another Chinese supervisor mentions a similar intention and then explains the situation.

*Master's graduates can hardly get those research positions. They either teach or work in other fields [...]. The first step is to get the degree, which is a unique phenomenon in China, where people take 'the degree' really seriously. (C1)*

This situation worried one of the Chinese supervisors:

*We write the thesis simply for graduation [...], not for the development of individual competencies. I think we kind of put the cart before the horse! (C7)*

In contrast, one Dutch supervisor expresses a similar intention as the Chinese supervisors but for very different reasons.

*My first aim is to get the student to finish. [...] There's not the pressure to finish quickly because it's not so expensive to carry on financially. [...] They get jobs before they graduate and suddenly they're too busy with the job or with life [to finish]. (D8)*

And further, in the words of another Dutch supervisor, when talking about the supervision of an international student:

*The degree stimulates insight into the processes of learning and teaching a language but also doing independent research and writing it up. [...] all these things together are important for their professional development. (D5)*

### 5.5.2 Support

In reporting on the support provided by the supervisors, we start with a general observation of the similarities and differences between the Chinese and the Dutch supervisors, then narrow our focus on specific subcategories of the support provided. Thus, in the following we do not report on the findings for each subcategory, but report on a selected number of subcategories with clear differences between the Chinese and the Dutch supervisors.

An overview of the tangible and intangible support mentioned by the Chinese and the Dutch supervisors in our study is presented in Table 5.3 (see explanations for each subcategories in Appendix 3). The supervisors highly resembled each other with regard to the different types of support identified. With regard to tangible support, the most teacher-focused support (i.e., providing teacher resources) and the most student-focused support (i.e., giving student tasks) were most frequently mentioned by both the Chinese and Dutch supervisors. With regard to intangible support, both the Chinese and Dutch supervisors talked most frequently about adapting their supervision to individual student motivation, abilities and background education. The supervisors thus agreed upon the importance of individualized education.

Table 5.3

*Support mentioned by Chinese and Dutch master's thesis supervisors*

Core category	Chinese ( $n = 10$ )	Dutch ( $n = 10$ )
Tangible support	<ul style="list-style-type: none"> <li>• Teacher resources (9)</li> <li>• Tell and lecture (9)</li> <li>• Teacher modelling (6)</li> <li>• Discussion (5)</li> <li>• Posing questions (6)</li> <li>• Student tasks (10)</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher resources (10)</li> <li>• Tell and lecture (9)</li> <li>• Teacher modelling (8)</li> <li>• Discussion (9)</li> <li>• Posing questions (8)</li> <li>• Student tasks (8)</li> </ul>
Intangible support	<ul style="list-style-type: none"> <li>• Adaptive supervision (10)</li> <li>• Assessment and control (9)</li> <li>• Emotional support (7)</li> <li>• Teacher dedication (1)</li> </ul>	<ul style="list-style-type: none"> <li>• Adaptive supervision (9)</li> <li>• Assessment and control (7)</li> <li>• Emotional support (8)</li> <li>• Teacher dedication (5)</li> </ul>

Nevertheless, the Chinese and Dutch supervisors also differed in several respects. To start with, they differed in the extent of their use of specific types of

support. While discussion was used by both, the Dutch supervisors mentioned discussion with students much more frequently and also for more stages and varied purposes during the supervision process than the Chinese supervisors. During the interviews, the Dutch supervisors appeared to be more dedicated to helping students learn than the Chinese supervisors.

The Chinese versus Dutch supervisors also differed in just how they combined the types of support. For instance, giving instructions (i.e., tell and lecture) and serving as an example (i.e., teacher modelling) were frequently mentioned by the supervisors from both countries, but the Chinese reported providing instruction and an example beforehand while the Dutch reported doing this only when the students encountered difficulties with a task or requested this.

Perhaps most importantly, the Chinese versus Dutch supervisors showed marked qualitative differences in the manner in which they provided specific types of support, namely: posing questions (tangible support), assessment and control and emotional support (intangible support). Therefore, in the following we reported in detail on these subcategories.

### *Tangible support*

*Posing questions.* The Chinese supervisors generally talked less in the interviews about asking questions than the Dutch supervisors. They also differed in the manner they pose questions. The Dutch supervisors reported deliberately not supplying answers and therefore frequently posing questions in response to student questions instead.

*They will ask 'should I put this in my code book?' I'll say 'did you see it in the data?' Then they go back to the data and say 'I didn't find it.' 'so what do you think?' [I ask.] 'I don't need to add it to my code book.' [They respond.] (D10)*

The Dutch supervisors also talked about posing a series of nested questions (i.e., questions ranging from general and easy to more specific and difficult) to build a gradual understanding on the part of the student.

*What is the article about? The topic, methodology and main results? And what is the most striking result?(D1)*

In contrast, the Chinese supervisors talked mostly in the interviews about which questions are most important for the students to understand — questions which were not necessarily explicit or nested. With regard to the reading of research articles, for instance, a Chinese supervisor might pose the following questions.

*Did they get any inspiration from these articles? And after reading two articles in the same area, do they see the differences between the articles?(C3)*

Perhaps because Chinese students do not ask very many questions, at least according to one of the supervisors (C8) in our study, the Chinese supervisors also

reported sometimes asking questions beforehand (i.e., as a separate, preparatory instructional step).

*Once they choose a specific topic, I ask them to think about how to research it, to what extent the topic has been studied at both home and abroad, what questions have not been asked before. (C4)*

The Dutch supervisors talked about a wider variety of questions than the Chinese supervisors in the interviews. The Dutch supervisors often asked what, why and how questions at the same time.

*What's the most important thing in this essay. [...] Why do you need this? (D7)*

The Dutch supervisors more frequently reported asking students why they opted for a particular approach or alternative and how they planned to put that approach or alternative into practice than the Chinese supervisors.

*They have to make their arguments for wanting to do it like this explicitly. If they don't have the arguments, then normally there is a problem. (D4)*

The Chinese supervisors spoke predominantly about what questions in the interviews.

*What are the similarities and differences between the different authors? What do you think about them? (C3)*

Occasionally they also talked about why and how questions but relatively independent of their asking of what questions. For instance, one Chinese supervisor asked 'How can you tell the quality of literature?' (C7). Another observed:

*For the first year master's students, I have the students read other researchers to see how they did their research, how they found the research problems. (C8)*

One exception in the Chinese sample resembled the Dutch supervisors with the use of many and also varied types of questions.

#### *Intangible support*

The Chinese supervisors talked a lot about assessment and control to ensure progress and the quality of students' work. The Dutch supervisors talked, in addition to this, about emotional support for the students.

*Assessment and control.* At least nine Chinese and seven Dutch supervisors talked about assessment and control or keeping the students on track. The Chinese supervisors appeared to be more focused on the use of explicit control and talked more than the Dutch supervisors about giving "approval" (C9), "inspecting" students' work (C1), and sometimes getting "very annoyed and angry" especially when the good students messed things up (C10). "If you cannot persuade me, then you must do it my way!" was also the conclusion of one supervisor when a student

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repeated a mistake several times (C4). Four of the Chinese supervisors explicitly mentioned forewarning students about the consequences of student misbehaviour and particularly about the consequences of plagiarism. For the Dutch supervisors, assessment and control was largely implicit and involved more interaction and discussion with the students than for the Chinese supervisors.

*They have to tell me why they think that this method will lead to the best results. And if they are able to say that, then I say it's okay, they can do it. (D4)*

Thesis planning or scheduling was frequently used by the Dutch supervisors for assessing and monitoring student progress. The planning was often drafted by the students and then discussed with the supervisor. The Dutch supervisors reported holding regular meetings with their students “just to make sure that they are on target” (D5). And finally, some of the Dutch supervisors reported using grading as a means to regulate student work.

*If you want more supervision, of course you can get as much supervision [as] you like, but then the grade becomes less and less and less. (D4)*

Both the Chinese and Dutch supervisors talked about situations in which they had little or no control. One Dutch supervisor mentioned that he might send a student who has not been seen in months an e-mail asking “how is it going?” but that “it is their responsibility in the end” (D1).

*Emotional support.* The Chinese supervisors often mentioned understanding the difficulties and limitations of students, their insecurities at times and the need for encouragement to pursue their own ideas.

*I understand that the first year is somehow turbulent. Students do not know where they are going. And it is all right to have such turbulence. (C3)*

The Dutch supervisors, in contrast, talked more about providing emotional support in the form of not directly pointing out too many mistakes and encouraging particularly weak students to move on. And when students are not doing well, according to one Dutch supervisor,

*Never tell them that! Rather than tell them “oh that's all wrong”, I say “Good! Just collect more on this, collect more on that, collect more on that and then you later need to try to put it together”. (D6)*

The Dutch supervisors also talked about building a close relationship and creating a relaxed atmosphere in which the students are not afraid to express difficulties and expose mistakes.

*I have had students here who would come to my office [...] and I could feel that there's something wrong, [...] so you give them tea and ask them how things are going and then they break down and cry. Then you try to find out what's wrong and see if you can help. (D9)*

According to two supervisors, they often meet informally “in the sun or in the coffee room” to discuss things as equals, or in the words of one supervisor “teach without teaching” (D9). According to another, “in half the cases, you become more or less friends for a very short period of time” (D1). “Some of them would like me to be there, and look over their shoulder every step of the way.” (D2)

### **5.6 Conclusions and discussion**

With regard to the intended learning outcomes identified during the interviews, the Chinese and Dutch supervisors highly resembled each other. They both considered the development of research competencies a core learning outcome (e.g., research process) for a master's thesis. However, they focused on different research competencies: The Chinese on critical disposition and academic writing skill; the Dutch on these but also on independence in doing research and developing the student's own research interests. Both the Chinese and Dutch supervisors similarly considered the development of a number of general competencies to be important learning outcomes. They strongly differed, however, with regard to the preparation of master's students for a future career: The Chinese supervisors clearly considered this an important learning outcome while the Dutch supervisors did not and even, in some cases, explicitly stated that preparation for a future career was not the aim of a master's thesis. The Dutch supervisors focused more on student well-being and their contribution to the knowledge base.

With regard to the support which the supervisors reported, the Chinese and Dutch supervisors both reported giving a combination of different types of support. They both mentioned teacher resources and student tasks as the most frequently provided forms of tangible support and adaptive supervision as the most frequently provided forms of intangible support.

However, clear differences were also found in the support reported to be provided by the Chinese and Dutch supervisors. They differed on the extent to which certain types of support were given, the ways in which they combined different types of support and — most importantly — how they used certain types of support. For intangible support (i.e., assessment and control, emotional support), the Chinese supervisors were high on explicit control while the Dutch supervisors were more implicit about this and emphasized emotional support instead. For tangible support, the Chinese and Dutch supervisors differed most strongly on their use of questions. The Dutch supervisors deliberately avoided giving students the answers to their questions by posing a nested set of questions to gradually build an understanding instead; they frequently asked students why they opted for certain ideas; and they asked students just how they planned to put their ideas into practice at times. The Chinese supervisors except for one, in contrast, did not pose many questions and reported sometimes doing this ahead of time to prepare students for the task of completing a master's thesis.

### ***5.6.1 Master's thesis supervision and research integration into teaching***

In connection to the discussion on research integration into teaching, our study provided a concrete picture of how research and teaching were actually integrated at the university. We chose master's thesis supervision to describe such a picture because it was an ideal example in which research was already well integrated into teaching. Thus by exploring the ideal integration, we could possibly identify a big variety of different ways to integrate research into teaching, which was shown in the various categories and subcategories of learning outcomes and support strategies identified in this interview study.

Previous studies have repeatedly reported that, in principle, there should be a positive connection between research and teaching (Neumann, 1992; Robertson & Blackler, 2006). However, in a meta study, a near zero correlation between research quality (i.e., productivity) and teaching quality (i.e., effectiveness) was found (e.g., Hattie & Marsh, 1996). Our findings suggest that, in practice, supervisors perceived various benefits of research integration into teaching, including developing student research competencies and general competencies, pursuing value of student research, fostering students well-being, and preparing them for a future career. Moreover, these benefits not only exist in principle, but also were underpinned in forms of the tangible and intangible support provided by these supervisors, thus demonstrating how research can be integrated into actual teaching practice.

Our findings regarding the learning outcomes were not only congruent with but also complementary to previous findings that student involvement in research can, in the teachers' views, assist the development of research competence (i.e., research skills, questioning perspective, and analytical view) (e.g., Anderson et al., 2006; Healey et al., 2010; Hunter et al., 2007; van der Rijst et al., 2013), student contribution to knowledge (e.g., Anderson et al., 2006), benefits for future employment (e.g., Hunter et al., 2007). Our finding pertaining to fostering student well-being was not reported elsewhere, expanding our current knowledge about the possible value or benefits of research integration into teaching.

Our study also provided a concrete example, in which we described in detail the benefits and approaches of research integration into teaching, in a context where research is already integrated into teaching. This is different from previous studies that focused on exploring new ways to integrate research into the curricula (e.g., Healey, 2005; Healey & Jenkins, 2009). At the same time, their model is very useful in understanding our findings, particularly the differences between Chinese and Dutch supervisors. For instance, the Chinese supervisors in our study focused more on assessment and control, while the Dutch supervisors focused more on discussion and posing questions. Therefore, according to their model, the Chinese and Dutch supervisors differed in the extent to which students were treated primarily as the audience (China) or as participants (the Netherlands).

### ***5.6.2 The social-cultural roots and master's thesis supervision***

Given the marked differences in the educational traditions of China and the Netherlands, it is surprising that the Chinese and the Dutch supervisors resembled each other so highly with regard to the intended core learning outcomes (i.e., research competencies) and types of support given by supervisors during master's theses. However, eight of the ten Chinese supervisors in our study had studied at or visited a Western university. Chinese education has been influenced tremendously by Western educational ideas since the 1980s (cf. Altbach, 1989; Niu, 2007). And educational ideas now travel frequently between Europe and Asia via the 'modern Silk Road' (Dang, 2013). The resemblances found here show how Western educational ideas have spread to Asian countries and, as Grigorenko (2007) has claimed, just how dominant Western educational practices have thus become throughout the world.

The observed differences in our data may stem from the educational traditions of the two countries (see Introduction to this chapter) but also from the social-economic conditions. China is a rapidly developing country with a booming economy, which requires a highly educated work force. Chinese educational policy has traditionally emphasized and still emphasizes higher education as an instrument for economic development (Hayhoe & Zha, 2006). The latter, together with the increased market demand, has resulted in a widespread expansion of enrolments in Chinese higher education since 1998 (Wang & Liu, 2011). However, unemployment caused by an oversupply of university graduates has become an issue for universities and has given rise to enhancing the employability of students as a core learning outcome for master's theses, which our data supports. The Chinese supervisors whom we interviewed clearly considered the master's thesis as a means to strengthen students' employability and thus prepare them for a future career.

In the highly developed Netherlands with its relatively stable employment market, the aims of university master's programmes have been less affected by the labour market and thus allowed the Dutch supervisors to use the master's thesis as a means to enrich both the personal and professional lives of students. In addition, the European education system, influenced by the Humboldtian tradition, concerns the development of individuals and is essentially non-utilitarian (Pritchard, 2004). This means that students — and particularly mature students who are in the middle of their careers — may still consider education a means to enrich their lives (and work) This may be difficult to sustain in the future in light of the current economic crisis in Europe and the Netherlands, however, but also in light of the influx of international students from countries like China with their own culture-specific aims for attaining a master's degree (i.e., maximize probability of employment in the home country). This was found to be the case in our data when one of the

Dutch supervisors indeed talked about the preparation of students for a future job when the students came from Asian countries.

### ***5.6.3 Teach without teaching; answer with questions***

The Dutch supervisors paid more attention to emotional support and building a close relationship with students, while the Chinese supervisors paid much more attention to control. This difference may stem at least in part from cultural differences. China is a high power-distance country (cf. Hofstede, Hofstede, & Minkov, 2010), where people expect power to be distributed unequally and accept this. In our study, Chinese students were indeed expected to have the supervisor to take the lead. In contrast, the Netherlands is a low power-distance country, where supervisors and students are assumed to be equal as individuals. And indeed in our study, the Dutch supervisors reported becoming friends with their students and reported trying to teach without giving the impression of teaching (i.e., teach without teaching).

The Chinese and the Dutch supervisors differed drastically with regard to the use of questions and the posing of a question in response to a student question — which the Dutch supervisors reported doing frequently and deliberately. These differences may have their roots in the educational philosophies of the two countries. Chinese education, under the influence of Confucius' teachings, has traditionally emphasized the emulation of seniors (Yang, 1993). Learning from examples (i.e., the teachers themselves) is thus considered an effective and essential way of learning. In contrast, Western education, under the influence of the ancient Greek philosophers, emphasizes learning via the asking and answering of questions (i.e., dialectical method) (cf. Hummel, 1994). This is perhaps why the Dutch supervisors talked more extensively about the use of questions during the supervision process than the Chinese supervisors.

Finally, the organization of the supervision in the two countries may also have created differences in the practices of the supervisors. Chinese supervisors mostly supervise groups of master's students all at once. This obviously does not allow close relationships to be built with all of the students. Group supervision also may not give supervisors the time they need to pose probing questions or questions aimed at the gradual construction of knowledge and insight. More positively, the peer support available among the students in a supervisor's group may make emotional support from the Chinese supervisor less important than it is in the Dutch situation.

### ***Final remarks***

It should be noted that we have chosen to report extensively on the differences between the Chinese and Dutch master's supervision processes. By doing this we hope to capture and explore as many different learning outcomes and supervising support as possible, and therefore expand our knowledge regarding research

integration into teaching. The observations and explanations provided here do not necessarily apply to all supervisors or teachers in the countries and should certainly not be taken as stereotypes. Our study was conducted only in the language and culture departments of universities, involving only 20 supervisors, and exceptions to the observed patterns were found in both the Chinese and Dutch samples.

Chinese and Dutch supervisors may nevertheless benefit from the cross-cultural insights provided here. Dutch supervisors might explore ways to supplement individual supervision with group supervision to draw upon the capacity of students to learn from each other, but also facilitate the often time-consuming process of individual supervision. Conversely, Chinese supervisors might consider the way in which Dutch supervisors use questions to guide the student learning process and promote independent thinking.

The present results provide insights for the functioning of supervisors within the same country as well. The differences identified for the Chinese versus Dutch supervisors, for example, may be particularly helpful when supervising students from different cultural backgrounds. Their supervisors need not necessarily adapt their guidance to the cultural backgrounds of the students, but they may become more aware of possible areas of conflict for international students in particular (e.g., hesitancy to question supervisors, hesitancy to think critically). Differences between the student's new educational context and their original educational background may then be addressed, if necessary, to promote adaptive learning for all students.

In closing, this chapter reported on the goals (i.e., intended learning outcomes) and approaches (i.e., support) to integrate research into teaching in a complete integration situation, where students were extensively involved in a complete research process. The various learning outcomes and the variety of support strategies presented in this chapter could be a practical source for university teachers to integrate research into other types of courses, with less extensive student involvement, and in parts of a research process.

