Chapter 6

General conclusions and discussion

6.1 Brief overview

The aim of this dissertation was to gain insights into the role of research in university teaching in two different places in the world with different cultural and educational traditions. The role of research in university teaching refers to both the goals and the approaches for the integration of research into teaching. The participants were teachers from the language and culture departments of Chinese and Dutch universities. More specifically, two studies — using quantitative and qualitative methods, respectively — were conducted to address the central theme: The beliefs and perceptions of Chinese and Dutch university teachers regarding the role of research in university teaching, and how these beliefs and perceptions can be explained by their cultural, institutional and individual background characteristics.

Given that beliefs and perceptions are often considered as synonyms (Pajares,1992), the two notions were carefully operationalized within the context of the present studies. Teacher beliefs about the role of research in university teaching refer to what teachers believe about how research should ideally be integrated into teaching and thus the ideal role of research in teaching. Teacher perceptions of the role of research in university teaching refer to how they perceive the actual integration of research into their current teaching practices and thus the actual role of research in teaching

The survey study (Chapters 2-4) was designed to provide an overview and a better understanding of the beliefs and perceptions of teachers regarding the role of research in university teaching and how these relate to the cultural, institutional and individual background characteristics of the teachers. The focus of the survey study was on the goals of integrating research into teaching. In Chapter 2, the similarities and differences between the Chinese and Dutch university teachers were outlined in general. In Chapters 3 (the influence of institutional factors) and Chapter 4 (the influence of individual factors), more detailed results for the Dutch and Chinese teachers, respectively, were presented. To gain the general overview, no distinction was made in Chapter 2 between teachers from research universities and universities of applied sciences, while Chapter 3 did distinguish between these two groups to explore specifically the influence of institutional factors. The interview study (Chapter 5) was a case study and was designed to gain a qualitative picture on the role of research in the teaching practices of Chinese and Dutch university teachers. The interview study focused on both the goals and approaches to integrate research into teaching in a specific complete integration context (i.e., intended learning outcomes and support provided by the supervisors for completing a master's thesis).

In the following, the results of the quantitative survey study and the qualitative interview study are combined to draw general conclusions about the

integration of research into higher education teaching in two different countries. The strengths and limitations of the present studies will also be discussed. And to close, some suggestions for future research into the role of research in university teaching and the practical implications of the present findings will be outlined.

6.2 Integrated conclusions

In the three chapters presenting the quantitative results of the survey study, not only the similarities and differences between the Chinese and the Dutch teachers were presented, but also the relevance of different background factors for the role of research in higher education teaching was revealed. In the chapter presenting the qualitative results of the interview study (Chapter 5), concrete descriptions of the actual role of research in the current teaching of higher education teachers were obtained. Therefore rather partial conclusions can be gained from each chapter. A synthesis of these findings is now provided to draw a comprehensive understanding of the role research plays in university teaching, especially as similarities and differences between Chinese and Dutch teachers are concerned. Also in these chapters, the various specific conclusions have been discussed in relation to the specific research questions in these chapters. It was decided not to repeat or paraphrase those here, but instead, a selected number of the most interesting findings are elaborated upon.

General

In general, the Chinese and Dutch teachers were found to be surprisingly similar. Both groups highly valued the integration of research into teaching for student learning, and particularly valued the fostering of a critical stance on the part of students. Both groups perceived less actual integration of research into their current teaching practices, which indicates a major gap between the ideal and actual. This gap was larger for the Chinese teachers than for the Dutch teachers. A number of individual and institutional factors were found to have similarly contributed to this gap (more details to follow in section 6.2.2). When the actual practices of teachers were explored in the interview study, both the Chinese and Dutch teachers considered the mastery of a number of research competencies to be the core learning outcomes for the supervision of a master's thesis. Both groups similarly combined different types of supervisory strategies.

Despite these widespread similarities, some intriguing differences were also found with regard to certain goals and approaches in the supervision of the master's theses. The Chinese supervisors of master's theses were more explicit on the assessment and control of student process, and largely aimed at the attainment of competencies, which can better prepare the student for a future career. In contrast, the Dutch supervisors frequently mentioned providing emotional support and posing questions to students as ways to monitor student progress, and aimed

more at fostering student well-being and student interest in research. Details of these similarities and differences between Chinese and Dutch teachers are provided below.

Similarities

The Chinese and Dutch university teachers in our studies highly resembled each other with regard to not only the major gap between the ideal versus actual roles of research in teaching but also how this gap relates to various institutional and individual background factors. The teachers also resembled each other with regard to the core learning outcomes they intended their students to learn through a master's thesis, the offering of a mix of both tangible and intangible support for master's students and the inclusion of a range of teacher- and student-focused support as part of the tangible support provided for master's students.

Goals of integrating research into teaching

The ideal-actual gap. The university teachers — regardless of cultural, institutional or individual background characteristics — highly valued a role of research in teaching. They especially considered the development of creative and critical dispositions as the most important goals of integrating research into teaching (Chapters 2-4). The qualitative interview study results confirmed this point when the supervising teachers reported the fostering of a critical disposition to be one of the core learning outcomes for the supervision of master's theses (Chapter 5).

However, both groups reported low actual integration of research into their current teaching, revealing a major gap between their beliefs and the perceived actual integration research into their own teaching practices (Chapters 2-4).

Influencing factors. The observed gap between the ideal and actual role of research in teaching was found to be related to a number of institutional and individual factors. Those teachers who perceived a better actual integration of research into their teaching generally came from research-intensive institutions, spent more work time doing research, had more research training and experience and perceived a stronger research culture in their own institutions.

Regarding the relevance of the ideas about teaching in general for the teachers' beliefs about integrating research into teaching, both the Chinese and Dutch teachers were more inclined to view the goal of teaching relatively more a conceptual development of students (in contrast to information transmission). In both groups, the more strongly teachers valued the integration of research into teaching the more they were inclined to view the goal of teaching more to promote conceptual development in students.

However, while one might assume that including research in teaching contradicts an approach to teaching that focuses on transmitting information, it was then interesting to see that a conception of teaching approach which emphasizes

information transmission had no negative influence on how teachers valued the integration of research in teaching. This finding suggests that incorporating research into teaching may not necessarily clash with teaching conceptions which are oriented towards information transmission initiated by the teacher.

Research competencies. Gaining research competencies were considered a core learning outcomes for the supervision of master's theses by both the Chinese and Dutch teachers. This included learning about the entire process of conducting research (e.g., the process of choosing a research topic and framing suitable research questions, study design and data collection, data analysis, clear writing and presentation of results). In conjunction with this process, developing a critical disposition, identifying one's own research interests and developing independence in doing research were considered important.

Variety of approaches in the integration of research into teaching

The interviews with both the Chinese and Dutch master's thesis supervisors showed a variety of support strategies to be used to assist student learning about and through research. The support strategies resembled the teaching strategies used for activities other than thesis supervision (i.e., course lectures). Supervisors provided both tangible and intangible support, which could vary from teacher-focused to student-focused support. Also notable is the frequent use of teacher-focused support by teachers from both countries. This again suggests that the incorporation of research into teaching need not necessarily clash with the use of a more traditional teaching approach which is largely oriented towards the transmission of information and knowledge at mostly the initiative of the teacher.

Differences

Remarkable differences were found between the Chinese and Dutch university teachers' perceptions of the actual integration of research into their own teaching practices. Clear differences were also found between the Chinese and Dutch teachers in the ultimate intended learning outcomes; preparation for a future career (Chinese teachers) versus student well-being and knowledge contribution (Dutch teachers). For the supervision of master's theses, the Chinese and Dutch teachers differed particularly with regard to their use of certain types of support.

The actual role of research in teaching

On average, the Dutch teachers in the survey study were found to be more positive than the Chinese teachers about the actual role of research in their teaching (i.e., the integration of research into their actual teaching). This difference was still found when we analysed a sample of Chinese and Dutch teachers with similar educational backgrounds (i.e., Master), teaching non-research focused courses. This difference can also be understood in light of the Dutch teachers also being

more strongly inclined to adopt a conceptual change/student-focused approach in their teaching than the Chinese teachers, which strongly correlated with more positive perceptions of the actual integration of research into teaching (Chapter 2). A major constraint for the Chinese university teachers appears to be a mismatch between the current aim of maximizing language proficiency in China, on the one hand, and the need to prepare students for functioning in a world which requires ongoing learning and research competence, on the other hand (Chapter 4).

Learning outcomes and support
The interview findings (Chapter 5) showed the Chinese supervisors of master's theses to be strong on teacher-focused support (i.e., assessment and control), largely aimed at the attainment of measurable outcomes (i.e., student publications), and concerned with the preparation of the student for a future career. In contrast, the Dutch supervisors focused on the realization of implicit learning outcomes (i.e., knowledge contribution, student interest in research) in addition to fostering student well-being; thus their approaches were characterized by more student-focused support, such as providing emotional support and posing questions to students.

6.3 Discussion

In this section, the similarities found between the Chinese and Dutch university teachers will be discussed in relation to the ongoing Western influences on Chinese higher education. The differences between the Chinese and Dutch university teachers will be discussed in relation to not only the different educational philosophies (i.e., Confucian versus Aristotelian underlying ideologies) but also the educational aims of the language education programmes in the different countries and the social-economic conditions of the two countries. Given these insights, the findings of this dissertation will then be situated within a broader discussion of the value and benefits of integrating research into the teaching for higher education students.

6.3.1 More alike than different
It was surprising to find the Chinese and Dutch teachers to be more alike than different with regard to their beliefs, perceptions and actual practices for the integration of research into university teaching. Intuitively one would expect differences between the Chinese and Dutch teachers in light of differing cultural, historical, political and economic circumstances for the two countries. The results of the empirical investigations reported here do not endorse this view point. The results of the research reported here seem to reflect, rather, a widespread Western influence on present Chinese higher education.

One of the similarities between the Chinese and Dutch teachers was that they both highly valued the incorporation of research into higher education teaching and particularly valued the fostering of a critical stance on the part of students. This is in line with previous research findings, showing that teachers believe that there should be a strong link between research and teaching in an ideal world (e.g., Neumann, 1992; Robertson & Bond, 2001). The shared valuation of research in teaching also reflects the international drive to involve students in research in as many courses as possible and the idea that the integration of research into teaching heralds a new way of learning and teaching which can better prepare students to cope with the complexity of a knowledge society (e.g., Brew, 2003; Clark,1997; Simons & Elen, 2007). In connection with the changing way of learning and teaching, many previously non-research oriented higher education institutions in the West (i.e., polytechnics, *Fachhochschulen*, and institutes for vocational higher education) are expanding their missions to incorporate practice-oriented research into their curricula (Brew, 2001; Griffioen & de Jong, 2013; Kyvik & Skodvin, 2003). In other words, the idea of integrating research into teaching is becoming increasingly welcome among the Western higher education institutions.

The importance attached to the incorporation of research into teaching found for the Chinese teachers in the survey study presumably stems from the immense influence of Western educational ideas on Chinese higher education (cf. Grigorenko, 2007). Not only Western education models have been adopted, many university staff members and graduate students have been sent to study in the West and scholars from the West are frequently invited to visit Chinese universities (Altbach, 1989, 2009). The influence of Western educational ideas has also been boosted by international research cooperation and student exchange programmes with China (cf. Dang, 2013). Confirmation of this influence is provided in the present research by the finding that the beliefs about the role of research in teaching were found to resemble those of the Western teachers more for the Chinese teachers with study-abroad experience than for those without (Chapter 2). This Western influence is also reflected in the unexpected finding that Chinese teachers today were more inclined to a teaching approach which focus on the fostering of conceptual change in students instead of simply the transmission of knowledge, as opposed to the widespread impression of the Chinese way of teaching as characterized by rote learning and memorization.

6.3.2 Similar gap but different constraints

Though both the Chinese and Dutch teachers highly valued the idea of integrating research into their teaching, a major gap was apparent when it came to the actual integration of research into their teaching. A number of constraints were found to be related to this gap. In general, teachers' educational backgrounds (Master's versus PhD), years of research experience, and time spent doing research were

found to be influencing factors for all teachers. In the survey study, those teachers with a higher educational background, more research experience and more time spent doing research — or the characteristics of a research-intensive institution — were found to have more positive perceptions of the actual incorporation of research into their own teaching practice and thus showed less of a gap between their beliefs and perceptions.

In addition to these general constraints, the Chinese and Dutch teachers both faced other shared constraints. For the Dutch teachers from universities of applied sciences, the historical backgrounds of these institutions and the fact that universities of applied sciences have only recently become involved in research (Kyvik & Skodvin, 2003), could be expected to impede the incorporation of research into teaching. The vocation-oriented educational aims of these institutions, the relatively small amount of time allocated to research as opposed to teaching, a less established research culture within the institutions and the still limited research support provided by the institutions may all have constrained the integration of research into teaching reported by the teachers from these institutions.

Similar to the universities of applied sciences in the Netherlands, Chinese universities joined the international world of research much later than most Western institutes of higher education. The research cultures in Chinese universities are therefore relatively less developed than those in Dutch universities; and the teachers at Chinese universities generally may have less research training and less research experience than those at Dutch universities. Thus, in general, the Chinese teachers could be expected to have more difficulties incorporating research into their teaching than the Dutch teachers from the West.

The gap found for the integration of research into actual teaching for the Chinese teachers may further stem from specific characteristics of the Chinese educational traditions, the current educational system and social-economic circumstances of China.

Chinese teachers appear to be confronted with a mismatch between the traditional Chinese educational approach and the research-based teaching approach. Traditional Chinese education emphasized learning from successful example and knowing through reflection (Shim, 2008; Wong 2011). Little space is thereby left for investigation of the unknown. Chinese education was driven more towards learning about factual information under the influence of the Imperial Examination system, which emphasized memorization of the Confucius classics (Niu, 2007). Besides, in the case of language education, the memorization of grammar and vocabulary was and is still, to some extent, considered a valuable and popular way of learning in Chinese education. This means that Chinese teachers and students are accustomed to a teacher-focused approach to learning as opposed to a more student-focused approach which calls for the incorporation of research into teaching. This was indeed reflected in both the findings of the survey study and the interview study. The Chinese teachers were less concerned with teaching as

conceptual change and less student focused than the Dutch teachers (Chapter 2). The Chinese teachers were also less familiar than the Dutch teachers with asking questions to prompt student learning and more concerned with the realization of measurable learning outcomes (e.g., publications, degree attainment). The Chinese teachers were also relatively less focused on the promotion of student well-being, stimulation of research interest, encouragement of independence.

Another constraint facing the Chinese language teachers is their perceived mismatch between what research-based teaching can presumably achieve and the institutional aims of maximizing student language proficiency. The Chinese teachers in the present studies considered the promotion of a creative and critical disposition on the part of students to indeed be the primary function of integrating research into teaching (Chapter 2, Chapter 4 and Chapter 5), which is largely incongruent with the current aims in Chinese language education. University language teachers have to recognize the reality that the current language education in China functions as a means to facilitate the internationalization of the Chinese economy and is thus deeply embedded in the historical and policy circumstances of the country (cf. Shin, 2012). Historically, the exam-based filtering system has been used to select state officials (Niu, 2007), which means that the educational system in China has been traditionally used for governance (Hayhoe & Zha, 2006). Such a cultural legacy together with the current governmental efforts to develop the Chinese economy can obviously create tensions for language teachers trying to extend their language teaching aims and integrate research into their language teaching. And such an assumption is confirmed by the finding in Chapter 4 that the Chinese teachers also mentioned a fixed curriculum, lack of student motivation, and low level of student language proficiency as reasons for an inadequate integration of research into their actual teaching practice.

6.3.3 Value of research integration into teaching

In previous general literature, the integration of research into teaching was typically assumed to 1) symbolize an academic identity (e.g., Robertson & Bond, 2005), 2) enhance both research and teaching (Deem & Lucas, 2007; Neumann, 1992; Robertson & Blackler, 2006; Robertson & Bond, 2001) and 3) prepare students for the changing complex world (Brew, 2003, 2010; Clark, 1997). The results of our interview study showed the core learning outcome for the supervision of a master's thesis to be considered the development of research competencies (i.e., learning the entire research process, a critical attitude, an interest in research and a capacity for independent research) (Chapter 5). These findings are consistent with the benefits reported in the literature of the involvement of students in research in order to promote a deep level of subject learning, increased research skills, benefits for future employment (Anderson et al., 2006; Healey et al., 2010; Hunter et al., 2007), the development of a critical stance, and student motivation to do learn (Anderson et al., 2006; van der Rijst et al., 2013).

The results of the interview study also suggest that the integration of research into teaching constitutes more than just a stepping stone towards the achievement of clearly observable educational benefits. According to the teachers involved, the integration of research into teaching contributes to the less observable but equally important values of enhanced student interest in research and enhanced student well-being. The results of the interview study also show the integration of research into teaching to highlight the value of student research for the production of knowledge, which has been previously reported by Anderson et al. (2006).

6.4 Strengths and limitations

6.4.1 Strengths

This dissertation is one of the first attempts to investigate the similarities and differences between teachers from an Eastern country (China) and a Western country (the Netherlands) with regard to the integration of research into university teaching. The present comparison of these two countries with their differing cultural backgrounds, differing educational traditions and differing socio-economic circumstances thus expands our knowledge of the role of research in university teaching in general.

The studies in this dissertation also provide insights into how specific educational traditions and economic conditions can mediate the role of research in university teaching. As illustrated in Chapter 4, for example, the educational aims must be taken into account to decide whether research needs to be integrated into a particular type of course. The integration of research into teaching is shown to be spreading in Western countries, and this trend is reflected in the expansion of undergraduate education programmes to include research (Brew, 2003; Healey, 2005) and the expansion of higher education programmes for the training of teachers and other professions to include research in their teaching (cf. Kyvik & Skodvin, 2003). This idea may nevertheless be in conflict with the educational traditions and local norms, as illustrated in Chapter 4 for the context of Chinese language instruction, the traditional aim of which is to maximize student language proficiency.

The survey study reported here is also one of the first attempts to clearly distinguish between what teachers believe the role of research should be under ideal teaching circumstances and what they perceive it to be in their own actual teaching practice. The instruments used in previous research have typically measured either the beliefs of teachers about what should be the case (ideals) (e.g., Neumann, 1992) or their actual practices (e.g., Hattie & Marsh, 1996), but not both. Findings from these studies appeared to be incongruent, and revealed different aspects of the relationship between research and teaching. The instrument used in the present survey study enabled us to measure both the beliefs and practices of

teachers and thereby explore the associations between their beliefs and self-reported practices.

Yet another strength of the research reported here is its situation within a context in which both research and teaching were jointly present, especially so in the case of supervising the master's theses. In previous studies, research and teaching have mostly been probed separately. These studies focused on whether being a good researcher makes for a good teacher? Whether research productivity of teachers is positively correlated to student evaluation of their teaching? (e.g., Hattie & Marsh, 1996) Implicitly treating teaching and research as separate activities and thus separate roles for the teacher/researcher, those previous studies could not disclose information on just how teachers translate research activities and knowledge into their actual teaching. It thus seemed more appropriate to look for a connection between research and teaching in contexts where they are both clearly present and possibly integrated (cf. Clark, 1997; Wilson, Howitt, Wilson, & Roberts, 2012).

Finally, the combined survey and interview approach used in this dissertation proved particularly useful for attaining a more nuanced picture of the similarities and differences between Chinese and Dutch teachers in higher education. While the general pattern of the survey showed the two groups of teachers to both value the integration of research into teaching, the interview results revealed important additional qualitative differences between the two groups of teachers. For example, fostering a critical disposition on the part of students was shown to be a highly valued learning aim for both the Chinese and Dutch teachers in the survey research, but the interview results showed the Chinese and Dutch teachers to understand the notion of a 'critical disposition' differently (Chapter 5). The Chinese teachers understood a critical disposition as spotting similarities and differences in order to identify valuable research questions (the functional value of being critical). The Dutch teachers described a critical disposition as the adoption of a questioning perspective with active defence of one's stance on a particular topic and thus the value of being critical in and of itself.

6.4.1 Limitations

Measuring beliefs

Teacher beliefs are not easy to access (Kagan,1990) partly due to the complexity of belief systems and in part due to an inclination to provide socially desirable responses. The questionnaire used in this dissertation explicitly asked teachers to report on a conscious discrepancy between what they believe the role of research should be in teaching and their perceptions of the actual role of in their current teaching practices. In light of a potential inclination to respond in a socially desirable manner, it is possible that the teachers in our studies perceived a gap between beliefs and perceptions to be undesirable and thus reported a smaller gap

than is actually experienced. Alternatively, it might be the case that teachers exaggerated the gap in order to suggest that the integration of research into teaching is too difficult to put into their actual practice, at least for language instruction. In either case, the design of the questionnaire may have biased the ideal-actual gaps which we found.

Generalizability

This dissertation was conducted with teachers from the language and culture departments of universities. This means that the conclusions based on this particular disciplinary group may not necessarily hold for teachers in other departments of universities or other academic disciplines.

The Chinese teachers in the survey study came, moreover, from a particular part of southwest China. The present findings thus bear upon university teachers from this area and may differ for university teachers from other parts of China. The types of universities vastly differ across China, which means that the degree of research support, research culture and level of student language proficiency, for instance, may depend on the level of the university and vary greatly from area to area and institution to institution. The generalizability of the present results is thus limited in this respect. Given the use of a centralized educational system in China, however, the findings can be assumed to be generalizable to a certain extent to Chinese universities in general, and particularly to universities of the same types as those studied in the present research.

The Dutch teachers in the survey study were from a number of research universities and universities of applied sciences. The group of teachers from research universities consisted of staff members from the language and culture departments, as well as language teacher educators from university teacher education institutes. This increased the diversity of teachers' backgrounds in relation to their institutional research culture, the content and aims of their teaching. This diversity of teachers' institutional backgrounds might limit the interpretation of the results and applicability in other contexts. While drawing implications from the presented results, we should be aware of the broad variety of institutional and departmental contexts at RU and UAS in which teachers work.

Similarly, findings regarding the influence of institutional factors on the integration of research into teaching (Chapter 3) are based on a comparison of teachers from research universities to teachers from universities of applied sciences in the Netherlands. It is recommended that the present findings be generalized with utmost care to other national contexts. The boundaries between the different types of institutions in other countries may be less clear-cut than the boundaries for the binary educational system in the Netherlands and the generalizability of the present findings therefore not straightforward.

While only Chinese and Dutch teachers from the language and culture departments of universities were recruited for participation in the present studies,

there were some differences in the purpose and designs of the language programmes between the Chinese and Dutch universities. Such differences can be assumed to have consequences for the integration of research into teaching and the comparability of the programmes in general. The Chinese teachers were mostly involved in teaching *College English*, designed for improving the language proficiencies of undergraduate college students from various disciplines. The Dutch teachers, particularly those at universities of applied sciences, were mostly involved in the pre-service teacher training courses aimed at improving not only the language proficiency of the students but also their pedagogical skills as future teachers of a certain language. While there is no literature — which we know of — on how the design of a course can shape the way in which teachers integrate research into their teaching, the results reported in Chapter 4 suggested that the aims and curricular design of Chinese language education probably constrained the incorporation of research into the teaching of the language education courses. It is also therefore likely that different curricular designs might to some extent have contributed to the observed differences in the beliefs and perceptions of the Chinese and Dutch teachers with regard to the integration of research into teaching as identified in Chapter 2.

The samples in the survey study were relatively small and therefore prohibited robust statistical analysis. Our conclusions regarding the influence of individual and institutional factors are therefore mainly based on the outcomes of simple correlation analyses and the application of nonparametric statistical tests. Precise influences of certain individual and institutional factors illuminated in the survey study should therefore be further tested with larger samples.

Influencing factors

In the survey study, only a few aspects of institutional background were explored. Clear differences between the research universities and universities of applied sciences in the Netherlands were observed, but these were related only to two, potentially important, specific aspects of the institutions (i.e., research support and research culture). Other aspects of the institutions that might also be of relevance were left out, which means that our survey did unpack the institutional background only to a limited degree.

Finally, only a limited number of individual factors were addressed in the survey (e.g., beliefs about teaching, teaching experience, research experience, educational background). Other individual factors may have influenced our results as well. For instance, the way in which teachers define the nature of research in general might influence their beliefs about the integration of research into teaching and their actual integration of research into their teaching. Another individual factor which could be influential but was not considered within the context of the present research was the quality of the teacher's research training and experience. Research experience was operationalized as the number of years of engagement in

research, but we did not collect information on the quality of the teacher's research training or experience, which might also have affected the teacher's attempts to integrate research into teaching.

6.5 Implications

6.5.1 Recommendations for future research

Instruments and measurement

A first recommendation for further research into the relationship between research and teaching is to be sure to continue using instruments which can explore both, or at least explicitly differentiate between beliefs about the ideal situation and perceptions of the actual practice, as we did in the present research. Previous studies have investigated research and teaching using very different instruments (i.e., measures of research productivity versus student evaluations of teaching) and assessed only beliefs/ideals or actual practice but not both. In such a manner, seemingly different conclusions regarding the associations of research and teaching have been reached and the actual incorporation of research into higher education teaching has remained largely unexamined. Future investigations exploring *both* teacher beliefs and practices with regard to the research-teaching nexus could contribute to a further understanding of the ambiguous relationship between research and teaching in higher education.

Identify additional influencing factors

In the present research, a significant gap was found between teacher beliefs about and their perceived actual practices for the integration of research into teaching. This gap was partly explained by a selected number of institutional and individual factors. The number of factors examined was nevertheless limited, which means that other relevant aspects of institutional background and other individual characteristics need to be identified.

To start with, the type of institution (i.e., research- versus teaching-oriented) was found to be a critical institutional factor but very little is known about which specific characteristics of the institutions foster (or impede) the integration of research into teaching. This dissertation explored the perceived research culture, perceived research support provided and the work time allocated for doing research within the institution. These were found to be insufficiently developed in the universities of applied sciences in the Netherlands. Enhancing these can be expected to facilitate the integration of research into teaching. But how exactly the research cultures and research support in institutions can be enhanced awaits further specification in future research.

Individual factors such as the teacher's research training (i.e., Master's versus PhD) and the number of years of research experience also appeared to be

important factors for the integration of research into higher education teaching in the Dutch context, but less so in the Chinese context. This suggests that not only the quantity but also the quality of the research training and experiences of teachers should be considered in the future. Investigation of the way in which teachers conceptualize the nature of research and the way in which this affects their integration of research into their teaching is another individual factor to be examined in future research. Given such information, the preparation of teachers can be adjusted to maximally prepare them for the task of integrating research into the teaching of students and thereby the preparation of students for optimal functioning in the complex and ever-changing world of the future.

In Chapter 4, the Chinese teachers pointed to limited language proficiency and limited student motivation as constraining factors for the actual integration of research into their teaching. This suggests that student factors should also be examined in future research on the integration of research into university teaching. Also in Chapter 4, the study-abroad experiences for just a couple of months were not found to be significantly associated with teacher perceptions of their actual incorporation of research into their teaching, suggesting a need to further investigate the influence of study-abroad experiences. Is the local situation too dominant to be influenced or the length of study abroad experience too short to exert any observable effects with regard to the actual integration of research into teaching?

6.5.2 Practical implications

Implications and recommendations for institutions

In the case of Dutch research universities and research-intensive institutions internationally, there is a group of teachers, perhaps typical for language departments, who had little time for research and had limited research experience and research training. For instance, this group may include language teacher educators and instructors aimed at language proficiency of students. As shown in Chapter 3, some 50% of the teachers at Dutch research universities had a master's degree and spent no more than 10% of their work time on research; some 34% had less than three years of research experience. Thus for this particular group of teachers, three suggestions can be followed to bridge the gap between the ideal and the actual for the integration of research into teaching: 1) Allocate more work time for conducting research in addition to teaching; 2) Increase the amount of research experience and 3) Enhance research training, through PhD programs for staff for instance. While these suggestions seem obvious there have apparently been circumstances in the institutional context in the past which created the present situation. It seems to be a matter of choice: If the university considers the integration of research into teaching to be of relevance for *all* teachers, the suggestions just mentioned seem to be necessary.

In the case of Dutch universities of applied sciences and other vocation-oriented institutes of higher education, it is certainly worthwhile that the relevance of the idea of integrating research into teaching to be evaluated along with the feasibility of doing this in light of the specific conditions and aims of the institution. The following might be considered for compatibility, for example: the vocation-oriented educational aims of the institution and the learning outcomes which research-led teaching can be expected to achieve. Depending on the outcomes of such careful evaluation, the institute may decide to focus their educational policy on teaching only. But if it is decided to integrate research into teaching as part of the institute's educational policy, then serious efforts are needed to organize this properly and provide the support and structure needed for such an endeavour. The establishment and promotion of a supportive research climate with sufficient institutional support and stimulating research culture requires a major investment in time and money for institutions which are not by definition research intensive, as these aspects of the institution have been rather neglected. Communities of researchers may be created to support the national and international exchange of knowledge and thus research networks be established both inside and outside institutes of higher education. Major efforts should also be expanded to increase the educational backgrounds, amount of research experience and work time allocated to research at these institutions as these were found to be constraining factors for the integration of research into teaching in the studies reported on here. They are thus critical for closing the ideal-actual gap in the inclusion of research in higher education teaching.

For the Chinese universities in particular and other Asian institutes of higher education, it is recommended to be very aware of the consequences and implications when trying to apply the Western educational ideas in Chinese and other Asian contexts. Conflicts can arise when differing traditions meet and local norms are expected to adapt, which therefore need to be aligned. In the case of integrating research into language teaching in China, for example, the rationale for such integration should be given very careful attention to start with. It is very well possible that different types of courses should be differentiated in the future for the use of research as part of teaching. This differentiation may depend on educational aims, educational content, educational or teaching level and level of student proficiency — among other things. Language teachers in Chinese universities should also be given more room than is currently the case to decide on the level of research integration into their own teaching. This will require greater flexibility in the current language curricula. When considering the integration of research into teaching and the rationale for doing this or not doing this, moreover, the institutions should encourage the teachers to explore themselves whether and how the inclusion of research in their teaching might lead to new ways of teaching, learning and improving the abilities of students. If it is decided in the end to indeed integrate research into a particular type of course, then the teachers' efforts should

be structurally recognized and supported but also evaluated with respect to the purpose of doing this.

Implications and recommendations for teachers

In the survey study reported on here, a teaching orientation which aims at promoting conceptual development of students was positively associated with how teachers value integrating research into higher education teaching. For this reason, it is recommended that dialogue among teachers with regard to their beliefs about teaching in general be stimulated, particularly when there is a desire to stimulate the integration of research into teaching. It was also found in the survey study reported here that a teacher-focused approach to instruction does not in itself preclude positive attitudes towards or efforts to integrate research into teaching in higher education. Similarly, the findings from the interview study showed both the Chinese and Dutch supervisors of master's theses to provide a combination of support, which ranged from more teacher-focused to more student-focused support. It thus appears that teachers seek a balance between teacher- and student-focus of their instruction and therefore their efforts to integrate research into their teaching presumably as well. It is therefore recommended that teachers occasionally be given an opportunity to reflect on this balance and consider how their current teaching practice stands in relation to their ideals and educational aims. This means that teachers be given opportunities to meet and share their knowledge about research in general and their experiences with the integration of research into their teaching practices. Such dialogue may not only reduce insecurities with regard to conducting research and integration of research into their teaching but also better inform their decisions with regard to specific goals and approaches to the integration of research into their teaching practices.

In the interview study reported here, the Chinese supervisors of master's theses were found to strongly focus on measurable learning outcomes (i.e., degree attainment, assessment of student knowledge and skills). This focus has its roots in the Chinese education system and the current economic circumstances of China, which means that it may continue to be the focus of master's these supervision in the near future in China. It can nevertheless be recommended under such circumstances that teachers be encouraged to pay greater attention to intangible learning outcomes (e.g., identifying student research interest, student contribution to the knowledge, fostering student well-being) in addition to tangible learning outcomes. Some of the Chinese supervisors in the interview study indeed observed that students were strongly externally motivated to enter the master's programme, and see the thesis as merely a mandatory obligation for getting the master's degree, but do not understand the broader purposes of completing a thesis. Therefore greater attention is needed to raise student awareness of the broader value of completing a thesis. To do this, teachers may consider to pay more attention to intangible learning outcomes such as the identification of students' own interest,

the fostering of their well-being and student contribution to the knowledge in a certain field.

It is also recommend that Chinese teachers be encouraged to stimulate students to ask and discuss more questions. One way of doing this is for the teachers to pose more questions themselves and establish a secure teaching/supervision environment for considering the questions. Students must feel free to express their thoughts and opinions but also talk about any difficulties they have experienced and mistakes which have been made in order to learn from these. The way in which the Dutch teachers posed questions and structured the learning environment to promote the attainment of intangible learning outcomes (Chapter 5) provides a practical resource for how to best do this. Increased questioning and discussion as part of the teaching process, and especially the research supervision process, can also foster more in-depth learning. In response to student inquiries, for example, supervisors may also consider asking students to come up with their own ideas and alternative explanations in addition to responding on the basis of their own experience and expertise as teacher or supervisor. In such a manner, students are induced to think about things further and actively argue their ideas with more solid, in-depth learning as a result.

Teachers in the Netherlands and other Western teachers alike can benefit from gaining insights into and understanding the practices of Chinese teachers. The use of group supervision is common in China, for example, and occasionally used in Western educational settings where it can save time — provided it is well organized — and also create room for student peer support. One reason that the Chinese supervisors in general provided less emotional support for students is perhaps related to their use of group supervision, which possibly entails emotional support among peer students. One of the Dutch supervisors in the interview study reported organising group meetings for students from the same department to come together for peer sharing purposes on a monthly basis, with a supervisor present as well. Towards the end of the master's trajectories of these students, they then took the initiative to organize a conference to share the outcomes of their master's theses with their peers and supervisors in the department.

Moreover, the interview study described not only a wide range of possible learning outcomes and support strategies for the supervision of master's theses, but also a rich set of goals and approaches for integrating research into other types of university teaching. Therefore it provides available options to teachers for their integration of research into different types of university teaching, in which students may be less involved or only in parts of a research process. How exactly teachers may choose from these options is beyond the scope of this dissertation.

Final comments

In closing, the similarities and differences observed for the Chinese and Dutch teachers and supervisors in the present research can help them understand their

international students. Teachers are being asked to supervise a growing number of Chinese students at Western universities in particular. These supervisors need not completely adapt their supervision to the specific cultural backgrounds of their students, but awareness and knowledge of these similarities and differences can nevertheless assist them with the accurate assessment of students, identification of student difficulties, help with student difficulties and — in the end — promotion of student learning. A mismatch can often occur, for instance, in the expected Western way of learning and the approach of the Chinese student to the learning task. A student from China will usually expect the teacher to give explicit guidance and concrete examples to learn from, while the Western supervisor expects the students to take the initiative, justify their ideas and engage in active discussion with the supervisor. This mismatch can obviously create problems when it is not recognized and amended. The results of our interview study can thus enhance awareness of the similarities and differences in both the explicit and implicit expectations of not only supervisors but also students and thus enable them to address these differences and adapt their learning and supervision as necessary to promote optimal teaching, learning and research.