Chapter 1
Chapter 1
General introduction

This study explores what practical knowledge secondary school teachers of Dutch as a first language (L1 teachers) develop by researching and implementing the concept-context approach to education (also called concept-context rich education) through collaborative action research. This thesis examines how a collaborative action-research partnership developed, what knowledge of concept-context rich L1 education teachers developed, and how they learned to use this approach to increase student understanding and engagement in learning L1. This first chapter describes the context and the main underlying theoretical perspectives of the study, and provides an overview of the study, a short outline of Chapters 2 to 5, and the research questions discussed in these chapters.

1.1 Background of the study

Over time, Dutch secondary L1 education has increasingly become skill-driven: that is to say, “[m]other-tongue education [L1] has become an efficient means to train the communication skills of future students and employees” (Hulshof & Verloop, 2005, p. 25). In the last decade a general policy and curriculum change in Dutch secondary education reinforced this instrumental view on mother-tongue education. This policy began in 1998 and focused on developing greater student responsibility and initiative - learning to learn and independent learning - and on helping the students handle and consume large quantities of information (Publication of Ministry of Education, Culture and Science, 2008; Van de Ven, 2007). This change required teachers to guide students in their learning process while at the same time remaining experts in their subjects (Oolbekkink-Marchand, 2006; Rubio, 1996). The new approach to secondary education encountered many problems. Both teachers and students complained about the workload and lack of intellectual challenge in the curriculum. To solve some of the problems in Dutch schools, the Royal Netherlands Academy of Arts and Sciences [RNAAS] issued a report (RNAAS, 2003), suggesting two key elements for educational improvement:

1. The concept-context approach to education
   A form of education in which subject matter (“concepts”) can be offered to students in various “contexts” that appeal to students, for instance, by linking to their everyday lives, in order to deepen subject knowledge, enhance transfer of information, and/or increase pupil motivation to learn (RNAAS, 2003). This term will be discussed more extensively further on in this thesis.

2. The teacher as developer
   To connect the subject matter to changing, “dynamic” contexts (RNAAS, 2003,
p. 17) teachers must be able to treat the subject matter with flexibility and adjust their approach to the learning experience and content. The curriculum materials can never be as flexible as teachers themselves in connecting the subject matter to different contexts. Teachers, therefore, should learn to use the study materials as background or source information.

In the study described in this thesis eleven teachers developed curriculum materials for secondary L1 education, which allowed them to explore the notions of the concept-context approach to education and the teacher as developer. This study gives teachers a voice in the discussion on this approach to L1 education, the teacher as developer, and on curriculum development in general, for they are the ones that shape the “curriculum-in-action” in the classroom (Van den Akker, 2003, p. 3). This study aims to contribute to the research on the teacher as researcher and developer and to the research on the possibilities of concept-context rich education, by answering the following research question: What knowledge of concept-context rich education do L1 teachers develop in an action-research setting?

1.2 Theoretical framework

1.2.1 Teachers’ practical knowledge development through curriculum development

Teachers are major stakeholders in curriculum development, and they play an important part in curriculum innovations (Duffee & Aikenhead, 1992; Van Driel, Beijaard & Verloop, 2001). Whether they implement a curriculum that is developed by someone else (Jennings, 1993) or develop their own (George & Lubben, 2002), “the implemented curriculum” (Van den Akker, 2003, p. 3) always contains components that need to be adjusted by teachers themselves, individually or in collaborative dialogue with others (Van de Ven, 2007). Beyond the formal content guides (for instance a textbook series or a state or local curriculum guide), teachers make decisions and adaptations to ensure “that the ideas and skills they hope to teach are made accessible to students” (Darling-Hammond et al., 2005, p. 175). This means that the curriculum is not static but flexible. Teachers shape the curriculum. What do they find important for their students and for the society they educate these students for? What are their goals, and when do they know they have reached them? What content, skills, or concepts do they want to teach their students? These are important questions for teachers and researchers concerned with the development of a balanced and consistent curriculum (Van den Akker, 2003). Because of the importance of the teacher in curriculum development, teachers were given a central role in this study by encouraging them to develop and implement concept-context rich L1 education themselves. It was anticipated that this would generate knowledge of curriculum development and increase teachers’ practical knowledge, furthering the discussion on teacher involvement in curriculum innovation.
1.2.2 Practical knowledge

Over the course of the past two decades, interest in teachers' practical knowledge (Carter, 1990; Meijer, Verloop, and Beijaard, 2001): their knowledge and insights that underlie their actions has increased. The research literature shows that teachers' practical knowledge is generated by teachers themselves and integrates both formal knowledge and personal beliefs. It is thus constructed by teachers through personal and professional experience and reflection on that experience (Johnston, 1992; Fenstermacher, 1994; Van Driel, et al., 2001). Practical knowledge is mainly tacit and implicit and is used in all processes of the teaching practice, including planning and executing activities (Lantz & Kass, 1987; Verloop, 1992), and helps teachers make sense of prior decisions (Schön, 1983; Beijaard & Verloop, 1996). The theoretical framework of practical knowledge offers the possibility to describe the knowledge teachers develop by designing, implementing, and reflecting on concept-context rich education in this study. Van Driel, Verloop, and De Vos (1998), originating from Shulman's work (1986), described several aspects of practical knowledge teachers develop. Starting from this classification, Meijer, Verloop, and Beijaard (1999) distinguish three subcategories within the category of knowledge of student learning: 1) knowledge of students' characteristics, 2) knowledge of their environment, and 3) knowledge of their motivation (p. 15). These subcategories, especially subcategory 3, are important to the study in this thesis because teachers themselves researched which context offers an opportunity for student learning and student engagement in learning L1. Their research aided these teachers' knowledge development of concepts and contexts of L1 teaching. By showing how concepts of L1 education are utilized in context, for instance in situations students are faced with every day, teachers get the opportunity to show the relevance of their subject to students. This might increase student motivation and engagement, which is an important goal of concept-context rich education. Interestingly, student participation and engagement in learning have been known to enhance teachers' practical knowledge development. Research by Park & Oliver (2008) shows that teachers react to students' responses of joy, creative and critical ideas, and evidence of learning by innovating their lesson plans and teaching strategies. This offers them the opportunity to develop practical knowledge of concept-context rich L1 education and how this approach can increase student motivation. This knowledge can in that case challenge teachers to experiment further in their practice and, in doing so, develop more practical knowledge.

1.2.3 Concept-context rich education

The concept-context approach to education, or context-rich education, revolves around offering concepts to students by using contexts. In this thesis the term concept-context rich education will be used when the approach is referred to
because it stresses the importance of the concepts as well as the contexts in which they are offered to the students.

In this study a concept is defined as Donald (1983) does: as “a unit of thought - an element of knowledge [...] Concepts can exist at various levels of generality and abstraction and may be simple or complex” (p. 32). They can be represented as an entity but often exist in a larger framework of related concepts (Donald, 1983; Hulshof & Vroegop, 1990). The RNAAS (2003) formulates concepts as subject matter at the classroom level; for example, “sentence structure” and “idiom” (p. 17). Other examples from L1 education, on various levels of generality, are “fallacy”, “genre”, and “metaphor”. These examples, as well as the classification of Ten Brinke (1976), and the list in the commission’s report for the revision of the national syllabus of Dutch secondary education (CVEN, 1991), illustrate the diversity and complexity of concepts for the subject of L1 education.

Concept-context rich education is a form of education in which subject matter (“concepts”) can be offered to students in various “contexts” that appeal to students, for instance by linking to their everyday lives, in order to deepen subject knowledge, enhance transfer of knowledge, and/or increase motivation to learn. The term concept-context rich education may be new, but researchers and teachers have worked with different forms of (concept-)contextrich education in a very closely related approach called authentic education, to engage students in different school subjects for more than ten years (Wierstra & Wubbels, 1994; Bennet & Lubben, 2006). Besides engaging students, other aims of contextrich or authentic education are reported in the research literature. Several researchers, many with a long tradition in educational practice and educational research, mention showing the relevance of the subject to the students (Hulshof, 1997; Bencze & Hodson, 1999); enhancing deep knowledge processing and thus student performance (Barber, 2001; Bennet & Lubben, 2006); enhancing transfer of knowledge and skills in students (VanLehn, 1996; Brand, Reimer, & Opwis, 2007); and building connections among subjects (Nikitina, 2006). The different approaches have much in common, but there are differences as well. For instance, authentic education (Cronin, 1993; Nicaise, Gibney, & Crane, 2000) takes students’ experiences as a starting point and aims to make the learning situation of the students as life-like as possible. Contextrich education (Pilot & Bulte, 2006; Bennett & Lubben, 2006) focuses on subject-specific situations as contexts in which concepts have a place. As mentioned, concept-context rich education focuses on the concepts and subsequently looks for contexts in which they naturally occur.

For the subject of L1 education, the term concept-context approach is new. In 1976 Ten Brinke introduced the term “normal functional education” to describe his approach to L1 education that has similar goals as concept-context rich education and describes linking learning materials to students’ “normal life”. He offers the following definition of normal functionality:
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An objective will be called normally functional if it shows 100% correlation with something that people need, or appreciate, in their normal life. It will be called scholastic if there is 0% such correlation. [...] An objective may derive its normal-functionalness from two factors,

a. practical importance, and  
b. intrinsic interest

Together, these two factors constitute the broad phenomenon of intrinsic motivation.

Ten Brinke also describes possible research contexts, and, following his book, a group of teaching methodologists from Leiden University focused on L1 teaching (LWM, 1980) elaborated on his views and those of others. For instance, they used the ideas of the brothers Van Calcar (1974) to elaborate on communicative contexts. In subsequent years, Dutch journals focused on the practice of L1 and language teaching (for instance, Moer and Levende Talen), reported on ways to show students the relevance of language concepts in communication and research but have not yet produced a structural approach to offering L1 concepts in context. The research described in this thesis, in which L1 teachers develop, research, and implement concept-context rich education, wishes to offer this structural approach and describes what offering concepts in context means for L1 education.

1.2.4 Collaborative action research

In this thesis the notion of the teacher as developer was researched by inviting teachers to conduct collaborative action research (Oja & Smulyan, 1989). This means that several teachers, joined in research groups, researched their practice by surveying students and colleagues, explored possible improvements of their lessons, collected data, researched and implemented plans for improvement, and reflected on the research steps and findings with their “critical friends” (McNiff & Whitehead, 2006, p. 256), the other teachers in the collaborative action-research groups (Kemmis & McTaggart, 1988). Collaborative action-research networks are mentioned as potentially powerful environments (Van Driel et al., 2001; Van de Ven, 2007) in which reflection on action plays a significant part (Zembal-Saul, Krajcik, & Blumenfeld, 2002). Since collaborative action research provides the teachers with a leading role in the development of the curriculum, and as research into the ideas of the teacher as developer constitutes a significant component of this study, this seems an appropriate approach. Dialogue and reflection are important aspects of collaborative action research, and it was therefore anticipated that teachers, as a group, would be challenged to share and express their practical knowledge, and, by doing so, make their practical knowledge development visible to the academic researchers in this study and to the teachers themselves. Because teachers would not be developing concept-context rich materials alone but in a collaborative action-research group of
teachers, facilitators, and academic researchers, it was expected that they would be inspired and encouraged by the other teachers in the research group and subsequently exchange ideas and share findings. The teachers could then profit from work done by others in the group, making the effort more rewarding for all of them. The research literature shows that learning to conduct action research can be a difficult and time-consuming process. Furthermore, research suggests (Ponte, Ax, Beijaard, & Wubbels, 2004) that action research is most productive when supported by a facilitator who helps and guides the practitioner’s reflection, provides information about collaborative action research, and focuses on the necessary strategies. Because of this, the collaborative action-research groups in this study were accompanied by a facilitator. Furthermore, an academic researcher (and author of this thesis) cooperated in the collaborative action-research process. The academic researcher (also possessing knowledge of and experience with action research) could assist in facilitating the process, providing input from research literature and collecting data, while at the same time trying to minimize the disturbance to the individual participants’ research projects.

This study, as with other collaborative action-research projects between university and school faculty, is characterized by its focus on the practical problems of individual teachers or schools and also its emphasis on professional development and support for collaboration between teachers and university staff (Clift, Veal, Johnson, & Holland, 1990). Partnerships between individual university researchers and school teachers are not new (McLaughlin, Black-Hawkins, & Townsend, 2005; McLaughlin, 2006). Day (1991) claims that “research can be practical and emancipatory for all participants if it follows a partnership model” (p. 545). In this study it was hypothesized that a partnership consisting of teachers from secondary schools, college instructors, and university researchers in education would foster knowledge development with practical implications for schools. The educational research literature shows that these partnerships can be very effective but that they are not without challenges and conflicts (Goldstein, 2000; McLaughlin, 2007). While expected to work collaboratively to innovate education and curriculum, participants require time and opportunity to develop trust in the group. This complicates the formation of a communicative space (Habermas, 1987; Habermas, 1996; Kemmis & McTaggart, 2005) in which people feel confident enough to exchange views and “can work together to achieve mutual understanding and consensus” (Kemmis, 2001, p. 100). The collaborative action research allowed teachers to apply their self-developed concept-context rich materials in their classes, and teachers were thus able to let their students profit from the project findings immediately (Day, 1999). Teachers researched how concept-context rich education could take shape in their practice; what specific concepts they used, and in what context concepts might be applied. An important aspect of collaborative action research is starting a dialogue with students. By talking to the students, teachers formed a more complete image of
the contexts in which the students engage, and how student motivation (a goal of concept-context rich education) could be increased; thus, teachers could develop practical knowledge of the possibilities of concept-context rich education.

1.3 Design of the study
Teachers’ practical knowledge development of concept-context rich education in this study was researched in a collaborative action-research setting. Eleven L1 teachers developed concept-context rich materials by conducting action research in three research groups facilitated by an action-research expert. The participants were divided into three separate groups based on their commuting distance (in the West, East, and South of the Netherlands). The three regional action-research groups were each accompanied by a facilitator (college instructor) and by an academic researcher. The teachers’ experience in teaching secondary L1 education ranged from three to thirty years. Preceding the project, individual interviews with the participants were held in which the practical knowledge of the teachers concerning L1 education, concept-context rich education, and collaborative action research was explored.

Initial research meetings, attended by all of the participants, occurred in January 2006. There, ideas about concept-context rich education and action research were discussed in short workshops. From February 2006 to June 2007 the three research groups met separately about once a month for two hours to research their practice and develop and evaluate their classroom materials. On two other occasions during the eighteen months, research groups West, East, and South met each other. These two meetings took place at the end of the first year (June 2006) and the end of the second year (June 2007). In these two meetings teachers’ experiences with concept-context rich L1 education were discussed. Table 1.1 depicts the three research groups, number of meetings, and participants.
Table 1.1 - Research group, meeting, and participants

<table>
<thead>
<tr>
<th>Research group</th>
<th>Number of meetings</th>
<th>Participants</th>
<th>Different or same school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research group West facilitated by Alice</td>
<td>11</td>
<td>Abby, Nina, Paul, Eve</td>
<td>All from different schools</td>
</tr>
<tr>
<td>Research group East facilitated by Kate</td>
<td>9</td>
<td>Diane, Wilma, Bert, Amy¹</td>
<td>All from the same school</td>
</tr>
<tr>
<td>Research group South facilitated by Ann (first year) and Rachel (second year)</td>
<td>10</td>
<td>Macy, Sasha, Hanna²</td>
<td>Macy and Sasha from the same school - Hanna from a different school</td>
</tr>
</tbody>
</table>

Over the course of the eighteen-month research period, oral and written data were collected.

- Oral data were collected in the form of semi-structured interviews with the participants before and after the project, and taped research-group meetings;
- Written data were collected in the form of teachers' written plans, evaluations, survey findings, responses to fictional cases of concept-context rich education (vignettes), research reports, evaluative texts concerning concept-context rich education written by the teachers, and the academic researcher's field notes.

Figure 1.1 depicts the course of the project. Data were collected over the course of the project and were not indicated separately in this figure.

¹ Brenda was also part of this research group but ended her participation in the first year.
² Alan and Naomi were also part of this research group but ended their participation in the second year.
1.4 Overview of the study

In the four studies presented in this thesis the development of teachers’ practical knowledge of concept-context rich education through collaborative action research was examined using the various theoretical perspectives as discussed above. For the studies presented in this thesis, several questions were formulated that will be answered in Chapters 2 through 5. The Figures 1.2, 1.3, 1.4, and 1.5 depict the data sources that are utilized in the separate chapters in this thesis by highlighting them per specific chapter.

Chapter 2 describes the first months (fall 2005 - June 2006) of the collaborative action-research project. This chapter reports on: the knowledge the teachers developed regarding concept-context rich education and what it means for them to participate in collaborative action research; the materials the teachers produced, and the L1 concepts and contexts they applied during the first months of the project. By describing the problems, possible solutions, and successes encountered during the first year, contributions to the knowledge of how in-service collaborative action-research projects develop can be made. Descriptions of the L1 concepts that were used and the concept-context rich lesson materials that were developed in this first year are also added. The following research questions are answered in chapter 2: How does a research project such as this develop, and what may be learned with respect to the process of and products resulting from the first year of an action-research project in which teachers develop concept-context rich materials? To answer these research question the following oral and written data sources were analyzed: the interviews with the teachers, audio-taped research-group meetings, the written research reports of the teachers, and the academic researcher’s field

\[\text{Figure 1.1: Course of the research project}\]
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notes. The highlighted section of figure 1.2 depicts the data sources that were utilized for this part of the study.

Figure 1.2: Data sources used in chapter 2

Chapter 3 describes the complex nature of collaborative relationships, the difficulties of conducting research with others, and the complications of partnerships in educational research. The theoretical notion of communicative space, and four metaphors of facilitative actions - map, magnifying glass, mirror, and compass - are utilized to analyze and describe the collaboration of the participants. Chapter 3 describes how the collaboration of the participants evolved and how they learned to contribute to the collaborative action-research partnership by engaging in dialogue and utilizing their unique expertise. The following research questions are answered: 1) How do participants in a research partnership collaborate to create a communicative space? 2) What are the challenges and possibilities in partnerships between teachers, college instructors (facilitators), and academic researchers? To answer these research questions the following oral and written data sources that concern the collaborative action-research process were analyzed over the course of the project: audio-taped research-group meetings, the written research reports of the teachers, and the academic researcher’s field notes. The highlighted section of figure 1.3 depicts the data sources that were utilized for this part of the study.

Figure 1.3: Data sources used in chapter 3
Chapter 4 describes the teachers’ interpretations of the concept-context rich L1 materials they developed by conducting collaborative action research. Data show that teachers have many different interpretations of concept-context rich education - some of which are reflected by the literature while others are specifically mentioned by the teachers. Benefits of concept-context rich education as formulated by these teachers in the written and oral data are also explored. By describing teachers’ views and interpretations of concept-context rich education, additions to the research literature on this topic can be made. The following research questions are answered: 1) How do L1 teachers interpret concept-context rich education? 2) What do they perceive as the benefits of this approach after they experiment with it in their own teaching practice? To answer these research questions one oral and one written data source was focused on in the analysis. The oral data source consisted of an interview that was held at the end of the research project with each of the participants, in which the practical knowledge of the teachers concerning L1 education, concept-context rich education, and collaborative action research was discussed. Preceding this final interview, the teachers all wrote a text in which they defined their position on concept-context rich education based on their observations and experiences over the course of the eighteen-month research period. These two sources were analyzed to answer the research questions in chapter 4 and are depicted in Figure 1.4.

Chapter 5 describes what practical knowledge L1 teachers developed regarding student understanding of and engagement in the L1 curriculum by researching concept-context rich education through action research. This chapter also describes how the teachers engaged in critical dialogue with each other and with their students in this process. The teachers developed practical knowledge of how student understanding and engagement can help to motivate and involve students in L1 education. Motivating students is an important concern of teachers because it influences student engagement and results. By engaging in collaborative action research, these teachers developed knowledge of how to increase student understanding and engagement and started to share responsibility for student
learning with their students. The following research questions are answered: 1) How does critical dialogue with each other and with their students foster teachers’ practical knowledge development of student understanding and engagement in L1 teachers? 2) What practical knowledge of student understanding and student engagement do these L1 teachers develop? To answer these research questions audio-taped research meetings were analyzed in which the critical dialogue with students and with each other is discussed by the teachers. The field notes and audio-taped research meetings were analyzed to answer the research questions in chapter 5 and are depicted in Figure 1.5.

Figure 1.5: Data sources used in chapter 5

<table>
<thead>
<tr>
<th>Start collaborative action-research project</th>
<th>Finish collaborative action-research project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2005</td>
<td>June 2007</td>
</tr>
<tr>
<td>Initial meetings with all participants</td>
<td>Mid-project evaluation with all participants</td>
</tr>
<tr>
<td>Individual interviews</td>
<td>Final meeting with all participants</td>
</tr>
<tr>
<td>Research-group meetings</td>
<td>Individual interviews</td>
</tr>
</tbody>
</table>

These research questions all focus on components of the overall research question:

What knowledge of concept-context rich education do L1 teachers develop in an action-research setting?

Chapter 6 combines and summarizes the main findings and conclusions of the previous chapters to answer this overall research question. Limitations of the study are also discussed in chapter 6. This thesis will conclude with a discussion of the implications of the findings, suggestions for future research on teachers’ practical knowledge, and implications for the teaching practice and research into collaborative action-research projects.