TEACHERS' INTERPRETATIONS OF THE CONCEPT-CONTEXT APPROACH FOR L1 EDUCATION

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Abstract

In 2003, the Royal Netherlands Academy of Arts and Sciences proposed two ways to improve secondary education in the Netherlands: concept-context rich education and the teacher as curriculum developer. In this study eleven L1 teachers explored these ideas by developing concept-context rich L1 education. Their interpretations of concept-context rich education and views on benefits of this approach after one and a half years of designing are the focal point of this article. Data show that teachers have many different interpretations of concept-context rich education - some are reflected by the research literature while others are mentioned only by the teachers. Important benefits of concept-context rich education formulated by these teachers are: increased student motivation, student participation, and teacher motivation.

Keywords: Concept-context rich education, L1 education, teachers' interpretations, benefits of concept-context rich education

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1.   INTRODUCTION

I now feel, after one and a half years of designing, that concept-context rich education, that is; offering subject matter to students linking to their everyday lives, is something that all L1 teachers should do in their lessons. (Hanna)

Hanna is one of eleven teachers that designed concept-context rich lessons in the course of a research project that lasted one and a half years. The aim of the research project was to bring teachers together and support them in designing context rich lessons through action research. The project was initiated in response to a statement of the Royal Netherlands Academy of Arts and Sciences (KNAW, 2003) in which two ways to improve secondary education in the Netherlands were proposed. 1. To enhance student motivation and learning concept-context rich education was advised. 2. To stimulate teachers the teacher as curriculum developer was proposed. Combining the two (teachers designing concept-context rich education) was thought to revitalize education for teachers as well as deliver motivated and thus hard working students.

Traditionally, the role of teachers in curriculum change has been perceived as 'executing' the innovative ideas of others (such as policy-makers and curriculum designers). Fortunately, nowadays there is consensus in the literature that the reform of actual practice should be in the hands of the professional sector (e.g. Ball & Cohen, 1999), and that teaching professionals should be in charge of planning and executing their own teaching. "In this way, teachers' commitment to, and ownership of, educational change will grow, increasing the chances of a successful and enduring innovation" (Van Driel, Bulte & Verloop, 2008, p. 108). Therefore, teachers were invited to shape the concept-context rich curriculum in the research project 'Language concepts in context'. In this article the results of this project are described. Because the teacher's role in the reform process is of crucial importance (Author 3, 2008) the teachers' interpretations of concept-context rich education and their views on benefits of this approach are the focal point of this article. Data show that teachers have many different interpretations of concept-context rich education - some are reflected by the research literature while others are mentioned only by the teachers. These teachers also formulated benefits of concept-context rich education in the course of the research project. Because of the importance of teachers' voices in educational reform, this article answers the questions:

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?

2.   THEORETICAL BRACKGROUND

The idea that teachers are the most influential factor in educational change is not controversial (Van Driel, Verloop, Van Werven & Dekkers, 1997). As major stake-holders in curriculum development, teachers play an important part in curriculum innovations (Duffee & Aikenhead, 1992; Van Driel, Beijaard & Verloop, 2001). Sometimes teachers implement an existing curriculum (Jennings, 1993) or they develop the curriculum themselves (George & Lubben, 2002), alone or in collabora-tive 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). There-fore, the curriculum is not static but negotiated. Teachers shape the curriculum. Their interpretive actions and practices are reflected in such questions as: What do I find important for students and for the larger society? What are my goals, and when and how do I know I have achieved them? What content, skills, or concepts do I want to teach students? To determine whether or not concept-context rich education could be a valuable idea for education, we feel, teachers should have the first say about it.

2.1 Concept-context rich education

RNAAS (KNAW, 2003) derives its idea of concept-context rich education from John Dewey (1913) who wrote about the merits of learning in authentic contexts. He believed that students learn and develop when given the freedom to experiment and develop their knowledge in a meaningful context (see for example Fottland, 2004 about Dewey). Other researchers since Dewey have worked with concept-context rich education, although some called it context-rich education or authentic education (for example Wierstra & Wubbels, 1994; Mayer, 1998; Nicaise, Gibney & Crane, 2000; De Bock, Verschaffel, Janssens, Van Dooren & Claes, 2003; Van den Akker, 2003; Quintana, et al., 2004; Schwarzer, 2004; Koens et al., 2005; Ainley & Patrick, 2006; Bennett & Lubben, 2006; Evelein, 2006; Brand, Reimer & Opwis, 2007; Caldwell, 2007). The approaches of these researchers have much in common, but there are differences as well. For instance, authentic education (Cronin, 1993; Nicaise, et al., 2000) starts with the experiences of the students and aims to make the learning situation of the students as life-like as possible. Context-rich education (Pilot & Bulte, 2006; Bennett & Lubben, 2006) focuses on subject-specific situations as contexts in which concepts have a place. Concept-context rich education focuses on the subject matter concepts and, from these concepts, looks for contexts in which they naturally occur. For the subject of L1 education, the term concept-context is new. In 1976 Ten Brinke introduced the term "normal functional educa-tion" 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:

> *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.

2.1.1   Goals of concept context-rich education

The literature shows that engaging students is not the only aim of (concept) context-rich or authentic education. Other goals are:
–   showing the relevance of the subject to the students (Cronin, 1993; Wierstra & Wubbels, 1994; Hulshof, H.–, 1997; Jones, 1997; Mayoh & Knutton, 1997; Bencze & Hodson, 1999; Nikitina, 2006);
–   enhancing deep processing and thus student performance (Banks, 1997; Palmer, 1998; Gordon, et al., 2000; Barber, 2001; De Bock, et al., 2003; Koens, 2005; Bennett & Lubben, 2006);
–   enhancing transfer of knowledge and skills in students (VanLehn, 1996; Brand, et al., 2007);
–   building connections among subjects (Nikitina, 2006) are also mentioned by several researchers.

2.1.2   Concepts in education

The term concept-context rich education directs its focus on concepts in contexts. The notion of concept is a complicated one. For the aim of this study we will focus on concepts as subject matter in the L1 curriculum at the classroom level. We are aware of the extent of the simplification when defining concept as such, but for the scope of this article we will adopt a fairly simple interpretation. We concur with Donald (1983) who defines a concept in education theory as "a unit of thought – an element of knowledge […]. According to him, concepts can exist at various levels of

generality and abstraction and may be simple or complex" (Donald 1983, p. 32). They can be represented as a separate entity but often exist within a larger framework of related concepts (Donald, 1983; Hulshof & Vroegop, 1990). RNAAS (2003) also formulates concepts as subject matter at the classroom level; for example "sentence structure" and "idiom" (RNAAS, 2003, p. 17). Other L1 examples include "fallacy", "genre", and "metaphor". Ten Brinke's (1976) classifications, and the list in the report of the committee for the renewal of the secondary education final exams (CVEN, 1991) also contribute to the possibilities and illustrate the diversity and complexity in concepts for L1 education.

Concepts can be derived from the requirements of the final exams for secondary education and have often been defined by the subject matter knowledge that students need to acquire. In their teaching practices, teachers, while working with concepts, keep in mind the requirements and also what students will need to know for future development and employment (Ball, 2000). Experienced teachers often have a clear view of the curriculum and concepts they need to teach even though personal interpretation affects teaching practices. An example of a target to be attained by students from the exam program for Dutch language and literature, in the domain of oral language skills:

> *Students need to collect and process relevant information that they will use in a lecture, discussion or debate (school may decide which). This information needs to be presented adequately, keeping in mind purpose, public, and conversational form (SLO, 2009, p.2).*

This example shows that schools and teachers have considerable latitude to decide on student activities. Furthermore, teachers define what is "adequate". These decisions are made on a daily basis individually or in collaboration. Therefore, the study described in this article uses an inductive approach that begins with teacher knowledge of concepts, such as that proposed by Ball (2000). She advocates starting with the teacher practice, letting teachers elaborate on subject matter and analyzing teacher work to explicate which concepts they use and how they use concepts to facilitate student learning. This approach allows teachers, and researchers, to elaborate on the existing curriculum and final-exam requirements and reveal concepts that would not have been visible when begun with an exhaustive list (Ball, 2000). Another reason to adopt an inductive approach in this study was that teachers could then work in a familiar and natural way in developing concept-context rich lessons.

2.1.3   Concepts in context

Concepts need to be offered to students, and teachers can go about this in various ways. One possibility is to offer an abstract concept to the students, for instance, "fallacy": explain what it entails and let students practice with the concept. Although this is a valid way of offering concepts to students, teachers and researchers claim that to engage students in a school subject, merely offering the concept is

not the optimal way. Engaging students can, for example, be done by showing the relevance of these concepts to their own lives. By offering concepts in a meaningful context, students can ascertain "a coherent structural meaning" (Gilbert, 2006, p. 4). A context can be meaningful when it shows the relevance of concepts to the students' own personal lives, the use of the concept in the surrounding social world, or how the concept is applied and defined in the academic world.

Cronin (1993) talks about a "continuum" (p. 78) of contextrich education. According to him, lessons can contain more or less elements of contextrichness: for instance, by making use of newspapers or other real-life materials (contextrich), or by adhering strictly to the textbook (context-poor). Koens, Mann, Custers, and Ten Cate (2005) call this an enriched or a reduced context. Another view on concept-context rich education is expressed by Van Oers (1998). He talks about contextualization of concepts, context-as-activity. In his view and that of Gilbert (2006), both relying on Vygotsky (1978), "the learner and the object being studied are not separate entities; they mutually define each other during human activity" (Gilbert, 2006, p. 8). In that way context can be conceived in terms of "a sociocultural setting, calling for tool-mediated actions, operations, and goals that are to be valued in the framework of that activity" (Van Oers, 1998, p. 481). This means that, for instance, a newspaper can be used as a pastime in school, as reading material for the end of the lesson. It can also be a source for a language exercise in which students search for different text sorts, for instance, or for information and arguments for a debate. The use of the newspaper depends on the contextualization made by the teacher and the students. The student and the teacher, therefore, are the ones that concretize the activity within "the activity-as-context approach" (p. 481).

The following questions were asked:
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?

3.   METHOD

3.1 Dutch L1 education and curriculum

In the Netherlands Dutch is an obligatory school subject in secondary education (basic curriculum, lower vocational and lower general education, higher general and pre-scientific education). For every student some subjects are mandatory, for example L1 and mathematics, others are optional, for example history, French and science. Students conclude their secondary education with an exam in eight or nine subjects. Every student is obliged to study L1. The L1 curriculum consists of five domains, that is; reading, speaking/listening, writing, argumentation, and literature. Students must obtain and demonstrate several skills in these domains, such as, analyzing, interpreting, criticizing, summarizing, and demonstrating. They also need to learn L1 concepts, such as, genre, fallacy, concepts of literary history and

express development in reading literature and reporting about it. The language skills domains dominate the textbooks and the lessons of the L1 curriculum. The core objectives for L1 education consist of demands such as:

> "The student is able to collect relevant information, present this information in an adequate manner (regarding purpose, public, kind of text and conventions), and revise the text based on feedback."

The choice of teaching materials for L1, such as textbooks, is up to the school. And the skills and concepts are mandatory for all students but L1 teachers are free to put more emphasis on certain concepts and skills than others in their teaching.

3.2 Process of the study

To design concept-context rich education the teachers collaborated in an action-research project. For this article the action-research setting is not the methodological focal point. To exhibit the worth of concept-context rich education the opinions of the teachers that have researched the phenomenon for one-and-a-half years is chosen, not the process of getting to this opinion. Because the focus point of this article isn't the process of getting to the views on concept-context rich education but the views themselves, the description of the collaborative action research setting will be brief in this article (for further reading on this collaborative action research see Platteel, Hulshof, Ponte, Van Driel & Verloop, 2010).

3.2.1   The collaborative action-research setting

Initial collaborative action-research meetings occurred in January 2006. Every participant attended one meeting. The participants discussed ideas about concept-context rich education and action research in short workshops. From February 2006 to June 2007 the three research groups met separately about once a month to research and discuss their practice and develop and evaluate their developed materials. On two other occasions during the eighteen-month period, 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 experiences with concept-context rich L1 education were discussed.

To prepare for this research, information about concept-context rich education was collected, and this was used to write an article about the notion of concept-context rich education, which was published in a Dutch journal for L1 teachers (Platteel, Hulshof & Van Driel,2006]). At their request, all the teachers received the article before the project started. In this study we use a model of context that was developed at the start of the research. It was derived from literature on contexts (Koens, Ten Cate, & Custers, 2003; Bennett & Holman, 2002; Eijkelhof & Van der Veen, 1989). The model distinguished between personal, functional, social and ac-

ademic context and these terms were used to initiate dialogue with the teachers. The personal context described the world inside the student, for example the language in his or her thoughts. The functional context described everyday life, the nearby world where the student uses L1 concepts – talking to friends and parents, and reading a magazine or a book. Very much intertwined with the functional context is the social context (for instance newspapers or books), where language is used to understand society and function in it. Because they are so closely related, the functional and social context will from this moment be combined into the functional-social context. The context in which language concepts are seen as objects is called the academic context.

To provide a rich context for the empirical study, a set of research articles on L1 education, context rich education and action research was compiled and distributed among the participants at the beginning of the second year. The articles were not distributed sooner because, initially, the influence of the researchers on the knowledge development of the participants was limited as much as possible. However, over the course of the study, it was realized that distribution of the articles, along with active engagement from the academic researcher, would be beneficial to the participating teachers. Also, an electronic learning environment (ELE) was set up for participants to contact and respond to each other.

The teachers designed concept-context rich lessons and experimented in their classrooms. They also surveyed students, evaluated designed materials and analyzed the results together. They discussed their views and outcomes and by doing so shaped their opinions on concept-context rich education that are the subject of this article.

3.2.2   Participants

Fourteen L1 teachers volunteered to develop concept-context rich education by doing action research. Their teaching experience ranged from three to approximately thirty years. The project began in January 2006 and ended in July 2007. 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 (first author of this paper). Table 1 depicts the three research groups, number of meetings, the participants and their teaching experience, and their schools.

Table 1. Research group, meeting, and participants

Research group	Number of meetings	Participants and experience	Different or same school
Research group West Facilitated by Alice	11	Abby < 10 years Nina > 20 years Paul > 20 years Eve < 10 years	All from different schools
Research group East[i] Facilitated by Kate	9	Diane > 10 years Wilma > 20 years Bert > 10 years Amy > 10 years	All from the same school
Research group South[ii] facilitated by Ann (first year) and Rachel (second year)	10	Macy < 10 years Sasha < 10 years Hanna < 10 years	Macy and Sasha from the same school – Hanna from a different school

Some teachers responded to an invitation sent to the web association of L1 teachers, and others responded to an invitation sent to their school. Although the teachers volunteered for an action-research project, with the exception of Abby, none had experienced the process before.

At the start of the research we held a semi-structured interview in which we asked the teacher about their views on concept-context rich education. We also asked if they were familiar with it in their schools. All teachers could give examples of what they interpreted as concept-context rich lesson in their curriculum. These lessons mostly concerned making use of newspapers or articles from magazines in class (Eve, Amy, Abby, Bert and Daisy). Linking tasks to events in the lives of the students to show the relevance of the L1 lessons in writing, speaking and reading (Wilma, Sasha, Paul, Nina, Hanna). Debating or writing about current evens (Eve, Macy, Bert) and showing the relevance of schoolwork by sending written products of students to newspapers for publication (Abby and Hanna). All teachers started the project curious about what other examples they could find and share with each other.

3.2.3   Data

Various methods and data sources were combined, using oral (semi-structured interviews with the participants before and after the project, as well as taped research meetings) and written (teachers' written plans, evaluations, survey findings,

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[i]*Brenda was also part of this research group but ended her participation in the first year*
[ii] *Alan and Naomi were also part of this research group but ended their participation in the second year.*

responses to fictional cases, and field notes of the academic researcher) data. This article focuses on the teachers' interpretations of concept-context rich education and what they perceive as possible benefits of the approach after one-and-a-half years of action research. Two specific data sources were focused upon:

1) A final text written by each of the teachers. The teachers were asked to take a position on concept-context rich education and write a short paper based on their observations and findings during the action-research project.

2) A final interview in which the final text was discussed. Preceding the interview the academic researcher (and first author) read and re-read the data collected for every teacher. She wrote a piece (half a page) on each teacher about his or her view on concept-context rich education. This description was offered to the teacher in the final interview as a starting point for reflection and dialogue. The academic researcher and the teacher also discussed the teacher's final text. Furthermore, the teachers were asked to prioritize five statements derived from the research literature regarding the possible disadvantages of concept-context rich education (for instance, concept-context education takes up a lot of time, and contexts can overshadow concepts), with 1 indicating the greatest disadvantage and 5 the smallest. Subsequently, they were asked to do the same with five statements regarding possible advantages of concept-context rich education (for instance, concept-context rich education motivates students, and concept-context rich education anchors concepts in students' minds). Finally, teachers were asked to list other advantages and disadvantages not mentioned previously.

3.3 Analysis

To answer the questions 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?* the eleven final texts and eleven final interviews were analyzed in several steps.

1) Parts of the final interview where teachers expressed their views on the L1 curriculum and the concept-context approach were transcribed, for instance: "When grammar is being taught, concepts need to be rehearsed, but when students need to write a text it is logical to offer that task in context". Dialogue regarding the action-research process was not transcribed.

2) Statements on concept-context rich education expressed by the teachers in the text and in the interview were collected, for instance, Students need to be able to see the connection between the different subject components and their own future/world, and the coded statements subsequently revealed themes in the teachers' interpretations of concept-context rich education.

3) From the research literature different interpretations of concept-context rich education were collected and themes such as: continuum and personal, functional-social, and academic were coded.

4)   Using themes from the literature combined with themes that emerged from the data, "sensitizing concepts" (Glaser & Strauss, 1967, p. 36), data were coded and the researcher actively searched for examples that aligned and conflicted with existing ideas, thus forming a codebook consisting of interpretations and benefits. The codebook, with some examples is shown in Table 2. In the findings section more elaboration on the codes are given.

Table 2. Codebook

Interpretation	Description
Personal context	Student's personal feelings and identity
Functional – social context	Student's everyday life, close to him or her, youth culture, music, TV.
* school and exams as context	- school and exams offer use or relevance
* cultural – historical context	- information about writer and history of a book offers relevance
* Student subject matter combination	- student subject matter choices offer use or relevance
* future; education and professional life	- student's future offers relevance or use
* cultural context	- Society and what happens in it, for instance politics - link to art and culture
Academic context	Language as an object for research, students doing or participating in research
Cross curricular context	Subject of mother-tongue education working with other subjects in cross-curricular projects
Continuum	Sliding scale of reduced context and context-enriched education
Context as activity	Activity of student and/or teacher will form context, for instance a newspaper in class can be reading material or practice material
Individual	For every teacher and student context is different and personal
- Different for students	- students have different backgrounds, prior knowledge, preferences and histories
- Different for teachers	- teachers have different backgrounds, education, preferences and histories
Physical context	students are learning outside of school, in a different context, for instance and excursion

Benefits	Description
Student motivation	
* importance of MTE	- cc shows relevance and value of the subject
* making MTE interesting	- cc makes subject more interesting and fun
Student participation	Related to motivation but more focused on student activity and participation
Improving results	Improving student results; higher grades
- Knowledge obtaining	- Cc helps knowledge be obtained by students
- Knowledge lasting	- Cc helps knowledge to take root in the students' minds
- Knowledge deepening	- Cc shows more sides and depth of the subject or helps deepen student knowledge
- Knowledge use	- Cc helps students use their knowledge
- Knowledge transfer	- Cc helps students use and adapt their knowledge elsewhere
Developing a rich and diverse general knowledge base in students	Cc helps students to develop on different levels and as a human being
Teacher motivation	Cc makes teaching and curriculum development interesting for teachers
Teacher development	Cc challenges teachers to develop themselves
Inspiring cross-curricular projects	Cc supports collaboration with other subjects by the use of general and broad contexts.

5) With the codebook the final texts and the statements from the final interviews were coded.

6) To assess and strengthen the internal validity of the analyses, an independent researcher coded two final texts and statements from the final interviews of two teachers, using the themes derived from the data, such as: cross-curricular context and cultural context, and the research literature. After the independent researcher coded these texts and statements, the authors of this article and the independent researcher discussed the results and adjusted the codebook.

Afterwards, the independent researcher again coded other statements from the final texts and the final interviews. These coding results were compared and discussed by the authors of this article and the independent researcher until a consensus was reached.

4.   FINDINGS

This section first describes the teachers' interpretations of concept-context rich education. Some interpretations were mentioned by all the teachers while others were mentioned by a few teachers or an individual. Descriptions of the interpretations mentioned, by how many teachers, and some examples of the interpretation are described in order to display the variations in the teachers' interpretations.

4.1 Interpretations of concept-context rich education

The teachers in this study expressed very diverse interpretations of concept-context rich education after one-and-a-half years of design, research, and implementation. The views of the teachers on concept-context rich education appear to be intersecting. Some can be recognized from the research literature, others were mentioned only by the teachers. As the findings will show, not all the interpretations are on the same level; some describe the whole approach, others only parts of the approach. These different interpretations will be described in the succeeding sections, using the themes from the codebook as categories.

4.1.1   Personal, functional-social and academic context

The teachers used the terminology personal, functional-social and academic context that we offered them at the beginning of the research, to explicate how concepts were used in context and can thus be relevant to students. They, for instance, explain to students which L1 concepts concerning communication and language can be utilized in the world surrounding them (functional-social and academic context). Not all of these teachers used the terminology as consequently as Macy, who says: *contextrich education links to what happens in the students' surroundings. Those surroundings can be arranged according to several levels: functional, social, and academic.*

Ten out of eleven teachers in this study interpret concept-context rich education as offering the concepts in the functional-social context, that is: linking the concepts to their use in and relevance to the students' own lives. For example, Diane expressed concept-context rich education as: *Developing situations for specific parts of the curriculum that are concrete and link to the students' lives or realms of thought*. Sasha says: *Motivating students is, in my view, only possible when the gap between school and youth culture is bridged*. In these examples Diane and Sasha both focus on offering concepts and learning activities with a link to the functional-social context: music, television, and media. The interpretation of concept-context rich education as functional-social context is also mentioned in the research literature. The teachers in this study, however, expressed that the students' daily lives entail many different aspects, and these aspects all offer opportunities for concept-context rich education, although some are more enriched than others. Because teachers formulated these interpretations as linking to the students' daily lives, we coded them as functional-social. They will be mentioned briefly:

- Youth culture, music, television, books (6 teachers); for instance, Paul mentions talking about students' views of the role of women in society and the media because in his class this is a reoccurring subject of discussion; Bert talks about the "zap generation".
- Students' futures – education and professional life (3 teachers); for instance, Paul and Macy mention writing letters of application.

- School - in various shapes and forms;
  – Student-subject matter combination (2 teachers). For instance, Wilma offers materials that connect the subjects of economics and literary history: an article from a popular Dutch financial magazine about the richest people in the Golden Age.
  – Cultural - historical context (2 teachers); Abby finds that a book's historical context can provide a framework for literary concepts.
  – School exam (2 teachers); not very inspiring but necessary nonetheless, according to teachers who mention the final exam and tests as a context to encourage students to acquire concepts.
- Physically different context (another place or city); for instance, Wilma mentions a cultural day in Amsterdam.

Furthermore, teachers find that focusing on current affairs and politics, is also an important way to shape concept-context rich education. Debating about socially relevant topics and helping students form an opinion about these topics are mentioned as significant aspects of concept-context rich education. Nine teachers give their interpretations of how to include the social context in the learning process. Abby, talking about the concept "summary" and the skill "writing a professional text", for instance, says: *Now I let them make a summary of a current affairs television program. They write a professional text, but they are enjoying it much more.* Eve, focusing on the concept "debate", writes: *At first, my ideas about what concept-context rich education could entail did not include things such as debating about socially relevant subjects.*

Another interpretation that we classify in the functional-social context is the cultural context. The cultural context refers to aspects of the functional-social context that are concerned with art and literature. Concepts of L1 education often have a place in art and literature, and by linking concepts of L1 education to the cultural environment these teachers hope to challenge students to expand their interests.

Six teachers explicitly mention linking to the students' personal context as an interpretation of concept-context rich education. Sasha, working on the concept "poems" and "poem analyses", writes: *I let students write a poem or rap about insecurity. I think this is a subject that the average adolescent highly relates to*.

Five teachers express using the academic context to interpret the approach. Diane, using debate to let students think of the concept "language as object", for instance, says: *You can let students debate about language and science although it is more difficult than a discussion of social subjects*.

These teachers utilized the terms personal, functional-social and academic context terminology to express their interpretation of concept-context rich L1 education, but, other interpretations were also formed.

4.1.2   Context as activity

For eight of the eleven teachers, their interpretations of concept-context rich education could be labelled as "context as activity" (Van Oers, 1998). In this interpretation the student or the teacher is the one that contextualizes a concept by utilizing it. Student activity and involvement in the process is therefore vital. For instance, Nina writes:

> It is very important that the student is conscious of his own context, and that he is asked to articulate that and that the teacher points out the interplay between and development of context and concept. That is what I call learning with coherence, and this increases, I think, the engagement of the student. He himself makes sense of his learning process.

Amy describes how she lets students' activity be a distinct component of the writing curriculum in a simple way: I let the students write a story and think up questions using concepts in the story that they need to know from the textbook. Abby expresses how she sees students recognizing concepts in the context: *Students can get a feeling of Eureka and start making connections that make them enthusiastic. Then, learning concepts can become a natural process*. The teachers feel strongly about student activity. As Bert says: *Participation and involvement of students is essential for me*. These teachers suggest that L1 education can help students shape their thoughts and help them develop their opinions. Wilma, for instance, refers to this goal of secondary education when she says: *These students end up in the higher levels of the society; they need a thorough knowledge base*. In the process of developing this knowledge base, contextualizing plays a significant role because to obtain a rich knowledge base, new knowledge needs to be actively acquired and processed.

4.1.3   Concepts in a cross-curricular context

One interpretation that did not occur in the research literature but was expressed by these teachers is the "cross-curricular approach". Eight of eleven teachers used this interpretation of concept-context rich education in their final texts and final interviews. Eve, again focusing on the concept of "debate" and "information gathering skills", for instance, writes:

> Who can think of more contextrich education for the subject of L1 education, English, geography, history, social studies, etc. than the following project: Students of our school represented Turkey in a fictional Security Council of the UN. They had to gain in-depth knowledge of Turkish policy and public opinion and used this information in a debate conducted (in English) with students of different nationalities.

The cross-curricular interpretation of concept-context rich education provides the teachers with the opportunity to show the effectiveness and relevance of concepts of L1 education linked to other subjects. As expressed by Macy: *Cross-curricular context is helpful, because you can indicate that L1 concepts are important every-*

where. These teachers see the cross-curricular approach as a logical and promising interpretation of concept-context rich education. Hanna explains: *When I see something in a newspaper about a music workshop, I immediately think: "That's something I can use to create a cross-curricular project together with a music teacher"*. This way, teachers can make their lessons more engaging for the students and even share some of the work with other teachers.

4.1.4   The individual approach

Although it is open to discussion whether this interpretation of concept-context rich education is an approach to concept-context rich education or to education in general, this interpretation will be described in the findings because it became an important element in the final texts written by the teachers. Seven teachers mentioned concept-context rich education as something very personal and individual for the teacher and for the students. Because a teacher's experiences, knowledge, and preferences vary, finding a context in which concepts can be offered and that appeals naturally to everyone is challenging, to say the least. Macy says: *How you see concept-context rich education depends on who you are as a teacher and what you think is important. Sasha suggests: Some students have gone through so much in their lives; you have to take that into account*. Because the teacher as a person changes and the students change as well, these teachers claim that the interpretation of concept-context rich education changes also. As a teacher you must be aware of that. Nina explains: *You have to define concept-context rich education for yourself, and that is an ongoing process. This means that as a teacher you have to be conscious of this all the time, and that is a good thing*. Because every teacher and student is different, these teachers offered many different interpretations of concept-context rich education for different situations and concepts.

4.1.5   Continuum

Two teachers explicitly describe concept-context rich education as a continuum (Cronin, 1993). For these teachers lessons can be contextrich and contextricher. Paul, working with the concept "letters" and "letter conventions", for instance writes: *Writing a letter of application and conducting an interview for a position is not very context rich in itself. This can be changed when groups of students respond to the same position and only one can get the job. It becomes even richer when people from outside the school conduct the interviews with the students.*

4.1.6   Variations in interpretations

The data show that all teachers interpreted concept-context rich education on different levels. Yet, many struggled with their interpretations. Diane, for instance, wrote that she still was not clear on how to define the notion concept-context rich.

She says: *At times I am pessimistic, and I think it is just another pretty term with not much capacity for renewal; do we not have enough of those already?* From her final interview and that of Paul we can derive that they believe concept-context rich education needs to be new and challenging for the students since they perceive this to be the only way this approach can add anything to existing instructional strategies. According to these eleven teachers it is logical to offer L1 concepts in context because these concepts are being used by students in many aspects of their lives. Therefore, they do not consider concept-context rich L1 education as something totally innovative for their subject, but Diane did find that combining different concepts and consciously linking the different contexts was a way that she and her students could feel challenged.

The teachers discovered that different forms of context were applicable for different concepts. For instance, reading and writing skills were naturally offered in a cross-curricular and functional-social context. Literary concepts were more often linked to the students' personal contexts. Furthermore, teachers mentioned that not all concepts should be offered in context. They, for instance, claim inspiring and motivating ways to learn grammar concepts and skills should be developed, but a contextrich approach might not necessarily be effective because it can also be confusing or distracting for students. Nina found that while writing a newspaper for younger students, students seemed to forget how to spell, entirely. Sometimes, enduring focus and attention on skills such as spelling in different enriched or reduced exercises is the only way to help students acquire these skills. According to Nina, finding out what works, and what does not, takes time: *You have to try it, but remain conscious of the dangers, so do not involve just any context at any time; experiment and keep talking about the process with the students*.

In the next section benefits of the approach formulated by these teachers will be described.

4.2 Benefits of concept-context rich education

4.2.1   Student motivation

The data suggest that all eleven teachers were concerned with student motivation and that they researched concept-context rich education to see if it would increase student engagement in and motivation for the learning of L1 concepts. The teachers reported on student surveys they had conducted that the concept-context rich materials that they developed increased student motivation. Diane said: *The project about the job application was great! It was not very innovating, but it was very motivating for the students; and Eve, working with literary concepts, writes: All the students had read two books, sometimes with some difficulty, and every one of them enjoyed talking to peers about them.* Teachers expressed that some concepts remained such as concepts used in grammar and spelling, although they reported

persisting in their search for ways to enhance student participation in the learning of these concepts and discussing their relevance to students' lives.

In student motivation teachers made an interesting distinction. All; on the one hand, explicitly mentioned "showing relevance, importance, and use of the subject" as an aspect of student motivation. But they also all mentioned "making the subject of L1 education interesting in itself for students". They focus on student motivation because they claim that by increasing motivation they can increase student effort for learning and applying L1 concepts. According to Macy: *In many cases the involvement of students will be enhanced, and this causes an increase in effort, which not only leads to better results but to more fun and probably enduring, long-lasting knowledge.*

4.2.2   Teacher motivation

Six of the eleven teachers explicitly mentioned teacher motivation as an important benefit of developing concept-context rich education. Abby writes: *Working with concept-context rich education is very motivating. As a teacher you start thinking about what concepts and topics are important to teach, and you then try to put that into practice*. Paul says: *A disadvantage of developing concept-context rich education is that it takes more time than following the textbook, but it also means that you find more satisfaction in your work, and this is a big advantage*. Sasha notes that designing new materials always takes time, concept-context rich or not. Knowing that this engages students make the effort worthwhile. Three teachers explicitly mentioned the knowledge and skill development they derived from developing this approach. Macy writes: *I think concept-context rich education is something that offers the opportunity to enrich your knowledge as a teacher because the context keeps changing.*

4.2.3   Student involvement and participation

The teachers also found concept-context rich education motivates students to participate and get involved. By helping students reflect on and apply the concepts in context, students are challenged to participate. Seven teachers mention this as an important advantage of concept-context rich education linked to student motivation and the learning process. Abby observes: *Students can be involved by contributing ideas to an assignment or even help developing one*. Paul writes: *Because of my implemented improvements students worked with more enthusiasm and were more involved in their learning. These are important conditions for improving the acquisition of knowledge and skills.*

4.2.4   Related findings

Many other benefits were mentioned by the teachers, such as "being able to reach out to students" (2 teachers), "enhancing the transfer of knowledge" (2 teachers), "making it easier for students to acquire new knowledge" (3 teachers), "increasing the rooting or anchoring of knowledge" (4 teachers), "showing connections between concepts" (3 teachers), "being able to differentiate between students" (3 teachers), "deepening understanding of concepts" (3 teachers), "being able to link to students personally" (2 teachers), and "getting better results" (2 teachers).

Some benefits were mentioned by individual teachers, including: "students acquiring knowledge of the world", "inspiring other teachers", "enhancing student independence", "teaching students to make connections between concepts themselves", and "dressing up the subject".

5.   CONCLUSION AND DISCUSSION

This section returns to the research questions. Limitations of this study and possible directions for further research will also be described.
1)   How do L1 teachers interpret concept-context rich education?
The data show that these eleven teachers expressed many different interpretations of concept-context rich education. The terms personal, functional-social and academic context were used the most by the teachers. This is not surprising because that interpretation was offered to the teachers during the empirical study. The terms proved to be a useful analytical tool for researchers and teachers. It helped them express different ways of looking at concept-context rich education. By offering the terms teachers' views were influenced from the early stages of the project. Being conscious of that, encouraging the teachers to research and adopt other views was done on several occasions and this gave them as much room as possible for their interpretations. Fortunately, the teachers did not feel inhibited to search for an interpretation they felt comfortable with and freely discussed advantages and limitations of the terms personal, functional-social and academic. As a result many different interpretations surfaced. Not only did teachers differ from each other, teachers also used several different interpretations and applied them when and how they deemed fit. The views of the teachers intersected. The teachers let the interpretations exist side by side and did not decide on one encompassing interpretation. This shows heterogeneity in the views of the teachers as a group but in the teachers themselves as well. The interpretations, which display the variations and complexities in teachers' opinions, give teachers a voice in the discussion on concept-context rich education. The analysis of their interpretations can add to the research literature on concept-context rich education and aid in providing a more nuanced view of this approach.

The teachers agreed that the functional-social context (the students' everyday lives and society), and the context-as-activity approach (contextualization) were

the most apparent interpretations of how concepts could be linked to changing contexts. Teachers expressed a more elaborate view on what a "student's daily life" entails than exhibited in the research literature. These aspects of the functional-social context (youth culture, music, day-to-day activities – school and free time - books and internet) provide teachers with opportunities to display concepts of L1 education, showing the subject's relevance to students and enhancing the learning process. Teachers mentioned that they would be able to identify and develop many more possibilities of concept-context rich education in the future.

Teachers discovered some contexts to be more appropriate for the teaching of certain concepts than others. They suggested that it was fitting to offer reading and writing skills in a cross-curricular and functional-social context. Literary concepts were more often linked to the student's personal context. For the different subject domains and concepts, different approaches to concept-context rich education seem to work. Further research could reveal if this is an accurate observation, whether this applies specifically to L1 education or whether this also applies to other language subjects or math and sciences.

An explanation for many different interpretations could be that these teachers interpret concept-context rich education as something very personal and individual. Experiences and preferences have a major influence on what a teacher finds rewarding and interesting. Furthermore, every student has a unique history, preferences, and prior knowledge. Some contexts might appeal to many students, others to only a few. The teachers claim that to actively engage students in L1 education these different preferences and histories need to be taken into account. This might seem impossible in schools with large student numbers, but these teachers claim that it is possible. Student activity and contextualization by teachers and students are mentioned as a way to obtain (more) individually oriented concept-context rich education. This does require teachers to be conscious of the contexts these students are concerned with and for teachers to engage in an ongoing dialogue with the students. Further research to shed light on how teachers can be facilitated to open dialogue and how concept-context rich education can play a part in teacher development, is therefore recommended. The different ways of viewing context rich- and concept-context rich education are equally valuable and important, and teachers and researchers working with concept-context rich education might see these different approaches as tools to help them reflect on what they do and try to accomplish with the curriculum.

Because of the small number of teachers that participated and the action-research methodology of this study, generalizations cannot easily be made and therefore further research on concept-context rich L1 education is recommended. Research into the application of concept-context rich L1 education, using the findings from this research, in which more teachers are involved, can shed a light on the possibilities of concept-context rich L1 education. Further development of concept-context rich education, using concepts that the teachers in this study did not touch upon, can also be a course of further research for teachers and researchers.

In this study we decided to let the concepts of L1 education emerge from the teachers' knowledge and practices; the teachers linked the concepts of L1 education to a context. Therefore, explicitly mentioning which concepts were used did not generally occur. Nonetheless, the focus on subject matter was very much present. All these teachers, probably because of their experience, were familiar and comfortable with the curriculum and had clear views on what it had to offer in context. The choice for an inductive approach was a result of the action-research approach, in which the teachers' concerns were the starting point rather than the concepts themselves. This research aims to inspire further research on and enduring teacher discussions about L1 education concepts in order to clarify what teachers and researchers indicate as core-concepts and skills of L1 education, and, by doing so, to challenge teachers and researchers to reflect on vital concepts for student learning of L1 education.

Also research on concept-context rich education with novice teachers is recommended. This can not only show how concepts are determined and applied by inexperienced teachers, but also ascertaining whether applying concepts in context is a feasible approach for novices as well as experienced teachers, such as the ones who participated in this study, can be researched.

For some of the experienced teachers in this study, the introduction of concept-context rich education as a completely new approach to L1 education seems a bit artificial. They do see a lot of advantages to concept-context rich education, and, by combining different concepts and consciously linking their concepts to the different contexts they mention, it can prove challenging for them as well as for their students.

2)   What do they perceive as the benefits of this approach after they experiment with it in their own teaching practice?

The data show that student motivation, teacher motivation, and student participation were the most important benefits the teachers experienced working with concept-context rich education. The teachers in this study felt that motivated students are an important first step to get to improved student learning. They therefore focused on student motivation in their research. The final interviews showed that that aspect of their teaching was of major concern to them. The promise of greater student motivation through concept-context rich education was the main idea why they choose to participate in the research. This explains why these teachers were focuses firstly on student motivation and second or thirdly on student learning. Their focus on student motivation is reflected in the research literature. The teachers in this study appreciated the motivational benefits of concept-context rich education. According to them, student motivation can be increased by a) showing the students the relevance of the concepts of L1 education, and b) making the subject itself more interesting. This distinction is important for teachers because it helps them to explain to students that learning concepts cannot always be fun and interesting for every one of them, but that these L1 concepts are relevant and useful in their lives now and in the future. It can, on the other hand, aid teachers in showing

students that L1 education, for instance linguistics, can be interesting and even fun without there being an explicit link to students' daily lives at that moment. Both arguments, which were also expressed by Ten Brinke (1976; 1983), are important for teachers when explaining to students the value of L1 education.

The focus on teacher motivation is something that is mentioned by several of these teachers. This study shows that the notion of the teacher as developer, formulated by the RNAAS (2003), had a positive impact on the teachers of secondary L1 education in this study. We need to consider whether or not the fact that these teachers participated in the research might have had an effect on the way they viewed the worth of concept-context rich education (Hawthorn effect). Of course this might be the case. On the other hand, these teachers volunteered to participate in the research and in the first interview expressed their expectations and doubt about concept-context rich education. As our data shows, they had an idea what it could entail, had some experience with it and were conscious about the possible problems. Their views and opinions are very much nuanced. That alone is one of the benefits of this research. The teachers now are aware of the complexity, the possibilities and the downfalls of concept-context rich education. Even though, they promote the approach when it comes to student and teacher motivation. These teachers mention that not all the lessons should be completely contextrich, although talking about relevance and the importance of learning concepts could and maybe even should be done for every concept of L1 education. In their opinion, teachers need to be aware of what kind of context to use for different concepts, and this awareness can be increased through experimentation in the curriculum and by maintaining an open dialogue with students.

The teachers' views on concept-context rich education after on and a half years of designing was the focal point of this research. The action-research process that the teachers went though, the surveys that they did and the lessons they designed were taken into account but only as far as the teachers themselves mentioned them in the final texts and the final interview. We also did not include observations of lessons in the research. We recommend further research that includes observations and process information so more light can be shed on how teachers put concept-context rich education into practice and what the benefits and difficulties of this approach are for student learning.

Besides motivation, other possible benefits were mentioned, some reflecting the research literature, others mentioned only by these teachers. "Offering students a large and general knowledge base by working with concept-context rich education" was explicitly mentioned. Teachers are very aware of the importance of their subject for students' general development. Other benefits that could be added to the literature are "possibilities to differentiate between students", and "inspiring other teachers". The analysis of the teachers' views reported on in this study adds to the views on concept-context rich education in the research literature and might inspire teachers and researchers to keep an open mind regarding different interpretations of this approach.

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