

*Teachers' Conceptions of Education:  
A Practical Knowledge Perspective  
on 'Good' Teaching*

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**ABSTRACT:** Research on teachers' practical knowledge is considered to be an alternative to several other research approaches to teaching which study teaching from a limited point of view and from an outsider's perspective, often with the aim of exerting control over teachers. It is argued that research on teachers' practical knowledge takes into account in a better way what really matters in teaching because it emphasizes the knowledge and beliefs of teachers themselves about teaching. In this study, the issue of 'good' teaching is highlighted from a perspective on teaching based on teachers' practical knowledge. The conceptions of education of eight experienced teachers were investigated with a multi-methodical approach. Teachers' conceptions of education consist of their views on the objectives of education, the contents of the curriculum, and the role of the teacher and the students in the teaching and learning process. Several contextual factors and teachers' interpretations of these factors seem to exert influence on teachers' conceptions of education, such as the schools in which they work, the characteristics of the students and subjects they teach, and general developments in society. It is concluded that it is difficult to give a precise definition of good teaching from a practical knowledge perspective because of the personal and context-embeddedness of teachers' practical knowledge. However, the results indicate that research on teachers' practical knowledge adds new information to the discussion of good teaching when compared with the results of more traditional research approaches to teaching.

**KEYWORDS:** Research on teaching, good teaching, teachers' practical knowledge, teacher thinking, conceptions of education, contexts of teaching.

### *Introduction*

Studies on teaching are done from different perspectives (Lowyck, 1994; Shulman, 1986) but the ultimate aim of all such research is to gain insight into 'good' teaching. Throughout the years, however, several of these perspectives have been criticized because teaching was studied from a limited point of view. The voices of teachers and contextual, broader institutional and cultural influences on teaching were almost always excluded (Carter, 1990; Hargreaves, 1996; Richardson, 1996). For a long time, teachers and teaching have been studied from an outsider's point of view without attention to teachers' knowledge and beliefs and elements of the contexts in which they work. Recently, research has emerged in which teachers' practical knowledge is highly emphasized (Calderhead, 1996; Carter, 1990). It has yielded research results which stress the situational, experiential, and particularistic aspects of teaching.

The aim of this article is to contribute to the scientific discussion about good teaching from a point of view which highlights teachers' practical knowledge. It addresses the overarching question concerning the relevance of research on teachers' practical knowledge as an alternative to other approaches in research on teaching and already existing, scientifically gained knowledge about teaching resulting from these approaches.

The study which will be discussed in this article has tried to do justice to teachers' views on teaching and the influence of contextual aspects on these views. The study focuses on teachers' practical knowledge regarding their conceptions of education; a conception of education can be considered the core of a teacher's teaching. A teacher's conception of education consists of his or her view on (a) the objectives of education, (b) the contents of the curriculum or knowledge, and (c) teaching and learning or the teacher's and student's role in the process of teaching and learning.

The article starts with a presentation of some dominant approaches in research on teaching, followed by an evaluation of these approaches. In the next section, research on teachers' practical knowledge is discussed as an alternative to these approaches. A description is also given of what should be understood by conceptions of education. The

methodological aspects are then presented, followed by a description of the results of the study. The article ends with some conclusions and a discussion of the possibilities and limitations of research on teaching which stresses teachers' practical knowledge.

### *Approaches to Teaching*

To present some important results of research on teaching which are part of the knowledge base of teaching so far, three dominant approaches to research on teaching are briefly reviewed in this section. These three approaches refer to studies of effective teaching, differences between expert and novice teachers, and the knowledge base of teaching and teachers. This section ends with an evaluation of the three approaches and the introduction of an alternative approach in which teachers' practical knowledge is highlighted.

### *Effective Teaching*

Effective teaching is often studied in process-product research on teaching. This kind of research focuses on the relationship between isolated characteristics of the behaviour of teachers in the classroom (the processes of teaching) and their effects on students (the products of learning). Good teaching is effective teaching, that is, teaching that leads to high student achievement. In order to gain insight into effective teaching, the behaviour of teachers and (cognitive) student achievement are studied and correlated. The behaviour of teachers is studied through observation and student achievement is measured by tests. It has been suggested that teacher education programs must be oriented towards the acquisition of this effective teaching behaviour by student teachers. An overview of research on effective teaching can be found in Brophy and Good (1986), Creemers (1994), Gage (1978), Rosenshine and Stevens (1986), and Shulman (1986). Some important characteristics of effective teacher behaviour are: creating an orderly and quiet atmosphere in the classroom so that learning can take place, presenting the subject matter in a clear way, asking questions, waiting for answers, and providing feedback (Creemers, 1994).

There are, however, some problems with this process-product approach to teaching. First, it is not clear whether there is a causal relationship between the behaviour of teachers and student achievement. Intermediating variables which could explain student achievement are not taken into account. Second, the emphasis is

exclusively on observable teacher behaviour in terms of some isolated variables; teachers' cognitions and the complexity of the teaching situation are not taken into consideration (Beijaard, 1990; Lowyck, 1994; Verloop, 1989). In connection with this, it is doubtful whether the results of such research are useful for teacher education programs: teachers and teacher educators do not recognize their practice in the research results sufficiently (Beijaard, 1990; Brophy & Good, 1986; Reynolds, 1992). Third, it is taken for granted that the same teacher behaviour brings about the same learning results in students in different situations (different school subjects, different students, different ways of grouping students, and different contextual influences) (Lowyck, 1994). Fourth, the emphasis is on the student's cognitive achievement on standardized tests (Pearson, 1989; Reynolds, 1992). Student achievement in other domains is generally not taken into account.

Research on effective teaching has resulted in some insight into relevant features of teaching, but the results are based on a view of teaching which does not do justice to the complexity of teaching, the teachers' own point of view, and differences between teaching situations and learning processes.

### *Expert Teaching*

At first sight, good teaching seems to be related to the teaching of expert teachers, because an expert is supposed to be someone who can do something well. Expert teaching and the differences between expert and novice teachers are studied in expert-novice research. Reviews of expert-novice research, in general, as well as in the domain of teaching, can be found in Bromme (1992), Carter (1990), Glaser and Chi (1988), and Sternberg and Horvath (1995). According to Leinhardt (1988), expertise is a technical term that refers to working with speed, fluidity, flexibility, situationally encoded informational schemes, and mental models that permit large chunks of information to be accessed and handled.

There are some limitations to expert-novice studies. First, in these studies, expert teachers are almost always experienced teachers, whereas novices have almost no experience. In fact, expertise seems to be a rather misleading term because it is the influence of experience which is measured in this research. It would be more interesting if the factor experience were controlled and teachers with the same number

of years of teaching experience were compared. In that case, the meaning of expertise would become clearer and the quality of teaching would be emphasized. Second, most expert-novice studies take place outside the classroom and do not deal with real-life tasks. Third, the results of the studies do not say anything about the development of expertise (Bereiter & Scardamalia, 1993); therefore, a rather static image of expertise is presented. Bereiter and Scardamalia prefer a developmental or process view on expertise rather than a performance view. They also are of the opinion that the tasks in these studies are rather simple for experienced teachers. They think it would be more interesting to give experienced teachers difficult tasks in order to gain insight into what these teachers do "at the edge of their competence."

The results of expert-novice research have provided insight into the differences between experienced and beginning teachers, but this research is based on a very psychological view on expertise. Moreover, the product of having experience is emphasized, while almost no attention is paid to the development of expertise.

#### *The Knowledge Base of Teaching*

A third approach to good teaching refers to the theoretical knowledge base of teaching and has its roots in the claim that teaching is a professional activity which should be based on knowledge which is generated by educational research. According to Reynolds (1989), the knowledge base for beginning teachers should consist of knowledge about different views on teaching, the teaching profession, learning, children's development, classroom management, classroom organization, curriculum, characteristics of subjects and their contents, pedagogy, general aspects of the basics, and school and education in social, sociological, and political contexts. It is supposed that teaching is a professional activity which is enhanced by deep knowledge of various aspects of education.

Some assumptions which underlie the knowledge base of teaching can be questioned. It is assumed that teachers teach better if they have a thorough knowledge of teaching. Although it is likely that knowledge of teaching will lead to a better understanding of the teaching situation, it is not clear whether possessing this knowledge results in better teaching. Knowledge is always a reconstruction of reality; it is an abstraction and not reality itself. Characteristics of the teaching situation like its multi-dimensionality, simultaneousness, immediacy,

and unpredictability (Doyle, 1986) are difficult to include in such a knowledge base. It is also assumed that teachers will internalize theoretical knowledge about teaching when they are confronted with this knowledge during their preparation for teaching. There are, however, strong indications that (prospective) teachers' subjective theories and beliefs about teaching are difficult to change (Pajares, 1992; Richardson, 1996). Therefore, it is not certain that teachers really integrate the theoretical knowledge offered to them into their own practical knowledge. Finally, it is supposed that theoretical knowledge which is derived from educational research is better and more valuable than knowledge which is derived from other sources (for example, teachers' experiences). The knowledge of teachers themselves is considered to be deficient (Carter & Doyle, 1996). This knowledge is assumed to be incomplete, one-sided, inflexible, untested, and so on. The possible shortcomings of theoretical or scientific knowledge and its usefulness for practical teaching are seldom mentioned.

It seems to be important that (beginning) teachers have theoretical knowledge about teaching, although the current knowledge base of teaching, which is derived from educational research, is not critically examined for its usefulness and relevance for the practice of teaching. Theoretical knowledge is very often abstract knowledge and it is not certain that (student) teachers really integrate it into their own subjective theories or beliefs about teaching.

#### *Evaluation and Perspectives*

Different aspects of teaching are emphasized in each of the above-mentioned approaches to teaching. Research on effective teaching is concerned with variables in teachers' behaviour; expert-novice research stresses differences between experienced and beginning teachers, and the approach that emphasizes the knowledge base of teachers is preoccupied with equipping (student) teachers with theoretical knowledge about teaching.

In these approaches, teaching is always studied from a limited point of view. Research on effective teaching and the knowledge base of teaching, in particular, emphasize teachers' shortcomings which must be eliminated by training programs which teach them effective teacher behaviour or by learning theory. In all the approaches, teachers and teaching are studied from an outsider's perspective without paying

attention to real teaching situations, the teachers' own perspectives on their teaching practice, and contextual influences.

Because of this critique, an alternative approach to research on teaching emerged in which teachers themselves are asked to express their knowledge and understanding of the teaching situation. It is expected that, at least to some extent, research on teachers' practical knowledge better takes into account what really matters in teaching and that this knowledge should be taken seriously by educational researchers in their attempts to depict good teaching. The study which will be discussed in this article is situated in this new line of research on teaching.

#### *Teachers' Practical Knowledge and Conceptions of Education*

The present study focuses on teachers' practical knowledge regarding their conceptions of education. In this section, a brief explanation is given of research on teachers' practical knowledge and what should be understood by conceptions of education.

#### *Teachers' Practical Knowledge*

Practical knowledge is knowledge which guides teachers' actions in practice (Johnston, 1992). Whereas scientific or formal knowledge is abstract and propositional, practical knowledge is experiential, procedural, situational, particularistic, and implicit (Carter, 1990; Fenstermacher, 1994). It refers to teachers' knowledge of classroom situations and the practical dilemmas they face in carrying out purposeful action in these settings (Carter, 1990).

Experience is an important source of practical knowledge. It is likely, however, that other sources are also relevant for the development of practical knowledge, such as the biography of teachers, formal knowledge learned during teacher preparation, and teachers' norms and values (Bromme, 1992; Duffee & Aikenhead, 1992; Handal & Lauvas, 1987; Johnston, 1992; McCutcheon, 1992). The information from these sources is integrated into a teacher's practical knowledge during his or her career (Beijaard & Verloop, 1996). This integration process is in large measure determined by a teacher's own teaching situation.

Fenstermacher (1994) divides the research on teachers' practical knowledge into two streams. In both, the conception of knowledge arises out of action or experience. In one stream, "narrative" and "story" are used as the basis for studying teachers' practical knowledge. According

to Fenstermacher, Elbaz (1983), Clandinin (1986), and Connelly and Clandinin (1990) are the main representatives of this view. These researchers accept teachers' statements, stories, and images as knowledge, without a critical examination of this type of knowledge and without searching for differences and similarities in teachers' practical knowledge. In the other stream, however, there is less emphasis on the description of practical knowledge through narrative or story and more attention is paid to the question of how knowledge arises in the context of action and the consequences of this knowledge for practice. Fenstermacher (1994) considers Schön (1983) and Russell and Munby (1991) as the main representatives of this stream. These researchers are more critical about the status of teachers' expressions (cf. Hargreaves, 1996). One of the objectives in the present study was to look for patterns in the practical knowledge of different teachers regarding their conceptions of education. Although teachers' practical knowledge is largely based on personal experiences and the specific situations in which they work, an attempt was made to search for more than just the characteristics of individual teachers' practical knowledge.

### *Conceptions of Education*

A conception of education or synonyms such as educational ideology (Edwards, 1988), orientation to the curriculum (Eisner, 1985), outlook on education (Jackson, 1986), approach to teaching (Fenstermacher & Soltis, 1992), and educational orientation (Kremer-Hayon, 1993) usually refer to a more or less coherent and consistent system of statements or opinions about education. Most of the authors mentioned describe conceptions of education in terms of theoretical notions from "great thinkers" and theorists. In their descriptions, they do not pay attention to the practice of teaching and what teachers think about education. Often teacher education programs and innovations in education are derived from these theoretical conceptions of education. Teachers are expected to adopt these conceptions. It is not clear to what extent these theoretical conceptions of education correspond with teachers' conceptions of education.

Several aspects are almost always highlighted whenever conceptions of education are discussed: (a) the objectives of education, (b) the contents of the curriculum or knowledge, and (c) teaching and learning or the teacher's and student's role in the teaching and learning process. There is a wide range of opinions about each aspect, which



together form a continuum. At both ends of each continuum, two extreme positions are distinguished. It is expected that in practice such extreme positions will not exist. A teacher's view on each aspect will probably be somewhere between the two extreme positions.

With regard to the objectives of education, one extreme position stresses reproduction and qualifications for preparing students for living and working in society. The position at the opposite end of the continuum is frequently described in terms of identity development, self-development, personal meaning, and authenticity.

Regarding the contents of the curriculum, one extreme position stresses academic knowledge, which is thought to be the most important for society. This knowledge can be clearly defined and is characterized as factual, abstract, and intellectualistic. It is usually derived from academic disciplines. The opposite position is more concerned with knowledge which is relevant to individual pupils personally. In this view, knowledge functions as a means for pupils to develop their personality.

Concerning the roles of teachers and students in the teaching and learning process, one extreme position focuses on imparting knowledge to students. Students are considered as "receivers" of knowledge which is "sent" by the teacher. In Jackson's (1986, p. 122) metaphor, the student is regarded as "the vessel into which knowledge is poured or stored." The student has a passive role and is only expected to reproduce knowledge. The opposite position emphasizes an active role for students in the learning process and a more supportive role for the teacher.

### *Methodology*

In this section, some methodological aspects of the study are presented. First, attention is paid to some features of the participants in the study (N=8) and the way these teachers were selected. Second, the collection and analysis of data are described. In one of the previous sections, different approaches in research on teaching were discussed. One of the conclusions was that teaching is very often studied from a limited point of view. In this study, teaching is seen as a complex activity. Consequently, several methods were used for the collection of data.

### *Participants*

Eight experienced teachers from two vocational schools and two general secondary schools participated in the research. In each school, two teachers were asked to participate in order to discover some possible school effects on the teachers' conceptions of education. They all taught students in the age-group of 12 to 14 years. Some of these teachers also taught older students. The average age of the teachers was 42; they had an average of 18 years of teaching experience. All the teachers were qualified to teach in secondary schools. Some of them were also qualified for teaching in primary schools and started their careers as primary school teachers. They represent 10 subjects and all had additional tasks in the school, such as being a mentor to a group of students, being a member of a group of students and teachers who organized activities after school hours, or being a co-ordinator of a department in the school.

The following criteria were used for the selection of the teachers:

1. They had to be teachers with at least 8 years of teaching experience so that the research would not be affected by beginning teacher problems. It is known that most beginning teacher problems have vanished after four to seven or eight years of experience. After this period, teaching stabilizes (Beijaard, 1995; Carter & Doyle, 1996).
2. They had to teach most of their lessons in the first two or three grades of their schools. It is assumed that in these grades, teacher's practical knowledge is not dominated by the pressure of the comprehensive examinations given in the final year(s) of secondary school.
3. In the case of vocational schools the teachers had to teach general and not vocation-oriented subjects. It is assumed that teachers who teach vocation-oriented subjects differ in their professional orientation from those who teach general subjects.
4. They had to be enthusiastic about participating. It is difficult to engage teachers in research when they are not willing to talk about their thoughts and work.

### *Collection and Analysis of Data*

The study focused on the teachers' practical knowledge regarding conceptions of education. In order to gain insight into the background of the teachers and the schools in which they were working, attention was also paid to the individual histories of the teachers, their actual

teaching behaviour, and the school culture. The following methods were used for the collection of data:

1. Interviews: the teachers were interviewed in order to gain insight into their conceptions of education, their personal histories, and their school culture. The interviews were semi-structured; a topic list was used as a guide throughout the interviews. The teachers were interviewed two or three times. In total, the interviews with each teacher took about 2 ½ to 3 hours. A member of the management team was also interviewed to get some additional information about the school culture and the school organization. All the interviews were recorded on tape and transcribed.
2. (Participant) observation: a number of the teachers' lessons were observed in order to get insight into their actual teaching behaviour. During informal periods, such as the coffee-breaks, the researcher also participated in and observed conversations the teachers had with their colleagues in the staff room. This was done to get a better understanding of the culture of the school.
3. Document analysis: some school documents were analyzed in order to acquire information about the school organization and other relevant aspects of the school.
4. Logbook keeping: the researcher kept a logbook during the collection and analysis of data (cf. Kelchtermans, 1994) in which striking events were written down; the researcher used this to reflect on and check her subjectivity.

After analyzing and interpreting the data, portraits of each individual teacher were written. Each portrait contained some background information about the teacher (for example, age, number of years of teaching experience, the school in which the teacher works, the subject(s) the teacher teaches, and additional tasks in the school), followed by a description of the teacher's conception of education. For purposes of validation, the teachers received their own portraits and were asked to comment upon them. Most of the teachers indicated their portraits were accurate and did not want to change anything. Two teachers asked for small modifications of a few words or sentences. The researcher granted their request. Subsequently, an analysis across the teachers' conceptions of education was made, followed by the analysis of contextual aspects which could have influenced these conceptions. The results of these analyses are presented in the next two sections.

### *The Teachers' Conceptions of Education*

In this section, the teachers' views on the objectives of education are described, followed by the teachers' opinions about the contents of the curriculum, and their viewpoints on teaching and learning or the role of the teacher and the students in the teaching and learning process.

#### *Objectives of Education*

The teachers mentioned different objectives of education. These objectives can be classified into two groups: objectives with regard to the subjects they teach and general and pedagogical objectives. Most of the teachers mentioned objectives with regard to the subjects they teach. Some of them referred to examination criteria and obtaining certificates for higher forms of education and getting a job. One teacher said: "It is very easy to identify the objective of education: passing the exams." Another said: "The objective of education is obtaining the knowledge which is required to pass the exams." Most of the teachers took the examination criteria more or less for granted and did not question them (with the exception of one teacher).

However, the teachers acknowledged that a school has more to offer students than preparing them for rather cognitive objectives. They thought that general and pedagogical objectives were also important. In their opinion, these objectives contribute to the development of students' personalities. They referred to aspects of value education, the development of attitudes, learning to work collaboratively, learning to take responsibility, and so on. One teacher said: "Students should become socially intelligent. They must be able to work in a group and take responsibility for each other's behaviour." Other teachers said: "I want students to discover the meaning of their lives in society" and "Students must be able to deal with differences between people." All teachers considered the teaching profession as a profession which consists of elements of schooling as well as education. Some of them even felt themselves more a pedagogue than a teacher.

Earlier, two extreme positions were described with regard to the objectives of education. The first was concerned with reproduction and students' preparation for society. The second one referred to students' personality and the development of a personal identity. Most of the objectives of the participating teachers stressed students' preparation for society. Both the objectives with regard to the subjects the teachers taught and their general and pedagogical objectives referred to this

position. Only a few teachers mentioned objectives which referred somewhat to the other position and stressed the development of students' personality.

#### *Contents of the Curriculum*

With regard to the contents of the curriculum, the teachers talked about subject-related contents and general educational contents. Concerning the subject-related contents, one teacher talked about skills such as reading maps and learning definitions of the main concepts of geography and the application of these concepts to the town in which the students live. With regard to general educational contents of the curriculum, the teachers mentioned, among other things, values and norms in relationships between people, knowledge of the meaning of Christian holy days, obedience, and learning to be critical. One teacher said:

I do not consider the subject matter the most important thing in my lessons. I think that students also have to discover what life means for them, and therefore I always try to pay attention to such aspects in the classroom.

In contrast to the subject-related contents, which are explicit and prescribed parts of the curriculum, the general educational contents were generally chosen by the teachers themselves and seemed to be a part of the hidden curriculum of the school. Only a few teachers did not make a strict distinction between subject-related contents and general educational contents, considering both as subject-related. The subjects they taught consisted, in their opinion, of subject matter which is strongly related to general educational contents. Other teachers agreed that general educational and pedagogical matters are important in their lessons, but they considered these as contents which do not have much to do with the subjects they taught. They discuss these contents, for example, when students are causing trouble in the classroom or when things happen which give rise to a discussion about right and wrong ways of acting.

Most of the time, the teachers used existing materials for their lessons like textbooks and workbooks. Two teachers, however, have, together with their colleagues, developed their own teaching materials. All the teachers thought that it is important to relate subject matter to students' everyday life or their future jobs. They were convinced that this would stimulate students to learn the subject matter. One teacher

said: "Students should learn living knowledge, that is knowledge which is visible in practical situations and which they can use themselves in practice. Abstract theories are dead knowledge; these are of no use for them."

Although the teachers thought that students must obtain some declarative knowledge (knowledge about facts and principles), most believed that procedural and strategic knowledge is more important (for example, knowledge and skills for problem solving). They considered these forms of knowledge as instruments for dealing with the problems students encounter in everyday life or working situations. Most of the teachers rejected knowledge for the sake of knowledge and wanted knowledge to be useful for students' future activities.

In a preceding section of this article, two extreme positions were described regarding the contents of the curriculum. The first position stressed factual and abstract knowledge which is derived from academic disciplines and which is meant to prepare students for society. The other position emphasized knowledge which should be personally relevant for students. The teachers' views on the contents of the curriculum are more concerned with preparing students for society than developing their personalities, although they tried to take into account the age and interests of their students and to present curriculum contents in a concrete and attractive way. General educational contents mentioned by the teachers, which transcend the school subjects, refer to norms and values which are derived from society and which also focus on students' participation in society.

#### *Teaching and Learning – The Role of the Teacher and Students in the Teaching and Learning Process*

The teachers more or less agreed with each other on the objectives of education and the contents of the curriculum. Their views on teaching and learning, however, or the role of the teacher and students in the teaching and learning process, showed more differences. There were four teachers who advocated whole classroom teaching; the teacher's task is mainly to explain and instruct. One teacher talked about independent, but not self-regulated student learning and a guiding role for the teacher, and two teachers mentioned a shared responsibility for the teacher and the students and collaborative student learning. Another teacher was convinced that independent and discovery learning

by students is best and that the teacher's role is to be supportive in this process. Below, the views of the teachers are described in more detail.

Four teachers thought that it is important, especially in lessons which are focused on theoretical subject matter, to explain a great deal to students, to demonstrate ways of solving problems, and to regulate and structure students' learning processes. They taught in rather traditional ways and tried to make the learning process as easy as possible for students. They were used to teaching whole classes and referred to characteristics of students which, in their opinion, led to this choice. For example, one of them said:

Students in this school are not able to structure their work. It is known from research that whole classroom teaching is more effective for weak students than collaborative learning in which students have to discover relationships between concepts. Therefore, I am the one who explains the theory to them.

Another teacher said that he had a service-oriented attitude. His view of good teaching related to explaining subject matter: "I want to help them as much as possible. I think the best way to help them is by explaining the subject matter to them." Recently, this teacher has had to teach in another way because of the implementation of a new mathematics curriculum in the school which requires independent student learning and places the teacher in the role of a guide. Although he has a positive attitude towards these innovations and is trying to adapt to this new role, he does not feel very comfortable. He said: "I miss the explaining part of my lessons; I have the feeling that the students do not need me anymore." For this teacher, explaining and helping students were the core of his professional identity. There is also a teacher who advocated whole classroom teaching because other forms of teaching require, in his opinion a lot of energy. He considered the teaching profession as very hard and, for him, classroom teaching is a way to survive. He is used to teaching in this way. When preparing lessons, he can fall back on the routines he has built up. He feels less at ease when he teaches in another way. He had the feeling that he is at risk of losing control of the classroom.

The other four teachers did not always consider whole classroom teaching as an appropriate way to teach. One of them was of the opinion that whole classroom teaching cannot do justice to individual students. He said: "Although the students are grouped homogeneously, there are still a lot of differences between students which have to be taken into account." Therefore, he lets students work at their own tempo in their

own space, and when they have difficulties, he intervenes and helps them. This does not mean that students regulate their own learning. He still sets criteria and tells them what they have to do and how to do it. Two other teachers who work in the same school said that they did not want to take on all the responsibility for students' learning processes and that they did not want to regulate the whole teaching and learning process. Their starting point is shared responsibility for teaching and learning and they strive towards self-regulated and independent student learning. Therefore, they advocate maximizing learning in peer groups and independent student learning, while minimizing lecturing. One of them said: "By lecturing, a teacher does not get insight into students' cognitive learning activities, it gives you no guarantee that students have learned something." Their views on teaching and learning are highly influenced by the school in which they were working. In the first grades of this school, classes are heterogeneously grouped and include students with low, moderate, and high capabilities. The philosophy of the school is that classroom teaching is not possible because of this diversity and that students should learn from each others' strengths and weaknesses. Therefore, the school advocates ways of teaching and learning other than the more traditional ones. Another teacher was convinced of students' intrinsic motivation to be engaged in learning activities. His starting-point for teaching and learning was the students' curiosity and research-mindedness. He thought learning is fostered by engaging students in rich contexts and real-life problems. According to him, students must make discoveries for themselves and the teacher's role in this process is to create situations and curriculum contents in which students discover how things are related to each other and how they work. He believed teachers should not demonstrate how things work or explain a great deal, but should let students work for themselves and stimulate this process. He said: "At the moment that I am explaining how this thing works, it has lost its value for the students. Students have to try themselves, and if I have to help them, the mark is overshot."

Most of the teachers are of the opinion that having a good relationship with students is a prerequisite for teaching and learning. When students feel good and when there is a good atmosphere in the classroom, obstacles to learning are diminished and students are motivated to learn. One teacher said: "One of the most important aspects is to show real interest in students. If you pay attention to their well-being, you will notice that students work harder and achieve



better." However, the teachers recognize that students' personal problems or problems in their families have increased and that it is very difficult to cope with problems which influence students' well-being and learning potential.

With regard to the role of the teacher and the students in the teaching and learning situation, two extreme positions were described in this article. One position stressed the teacher's imparting role in which knowledge is transmitted and the rather passive role of the students. The other position emphasized an active, sense-making role for students and a supporting role for the teacher. Some aspects of the teachers' views which were discussed first show a strong correspondence with the first position. Their views highlight a rather teacher-centred approach. The views of the teacher advocating independent and discovery learning correspond more with the last-mentioned position, because he believed that a teacher should create conditions for learning and that students must make sense of what they learn by themselves. The views of the other teachers were somewhere between the two positions. They advocated independent student learning, but differed in the degree to which this learning is self-regulated.

### *Contextual Influences*

The data clearly shows that the teachers have to deal with a number of contextual influences which, in one way or another, influence their teaching and their conceptions of education. Four contextual influences were identified: (a) the students the teachers teach, (b) the schools in which the teachers work and the way these schools are organized, (c) the subjects the teachers teach, and (d) general developments in society. These contextual influences are described below.

#### *The Students the Teachers Teach*

The teachers mentioned several characteristics of the students they taught. They referred to developmental aspects of their students, social-economic features, and the cognitive and emotional levels of their students. Four teachers, who taught students in the lowest levels of the Dutch secondary school system, talked a lot about the cognitive and emotional characteristics of their students. They did this in a rather negative way. From their experiences with their students, they said: "they cannot calculate," "they cannot structure the learning contents," "they have learning difficulties," and "they lack self-confidence." In

general, they consider these student characteristics as unchangeable. They take them more or less for granted and try to adapt their teaching to the student characteristics. Except for one, the teachers thought that their students found it hard to learn independently and to be responsible for their learning. In their opinion, the students needed guidance and were not ready for independent learning. They saw this as a reason for whole classroom teaching.

Two teachers had a strong developmental view on their students and talked in terms of students who still had to discover their abilities. According to them, students with different capabilities must have the opportunity to learn from each other as long as possible. One of the teachers said: "For a long time, students in our school were grouped heterogeneously, even in the third year. That is no longer the case, but I am still convinced that the weakest students used to learn more than they do now."

The teachers also talked about the age of their students and some common characteristics which, in their opinion, are related to age. They said that they tried to take these factors into account in their lessons. For example, one teacher said that students found it very important to belong to a group. He thought that students can be motivated for school work by creating lessons in which students have to work collaboratively. Another teacher said that students at the age of 15 or 16 are very concerned about their own identity, friendships, and so on, and that life is sometimes very hard for them. He thought that because of the problems the students already have, a teacher should be friendly toward students and help them as much as possible instead of troubling them. He never gave them much or difficult homework on Friday, because he knew that the students had other things to do during the weekend.

#### *The Schools in Which the Teachers Work*

Two teachers from the same school referred to their school's conception of education, which, according to them, has influenced their teaching and thinking about education. In their school, the students in the lower grades are grouped in heterogeneous classes. One was convinced that students in these grades had strong developmental potential which is not already known. Therefore, putting students on a specific level too early does not do justice to their potential. There is also a great deal of emphasis on collaborative learning and on learning to deal with differences between people. Because of the different cognitive levels of

the students in these classes, both teachers said that classroom teaching is not possible or desirable, and that they had to use methods other than traditional classroom teaching. Although it seems that both teachers were inspired and influenced by the school's conception of education, it is also possible that their orientations towards education were similar to the school's before they started working there. Otherwise, they possibly would not have chosen to work in this school. There are indications that both teachers did indeed have a non-traditional view on teaching.

There were big differences between the teachers with regard to their professional relationships with their colleagues. Most teachers did not really collaborate with others. They were not stimulated to do so by the management of the school and/or do not initiate it themselves. They seem to have developed their views on education and teaching to a large extent individually. One of the teachers did not feel a need for collaboration because he is convinced that everything is going well, so that there was nothing to discuss with colleagues. He said: "We do not have meetings and discussions about school policy, or education, or about our opinions about how we would like to teach. I can do without it because everything is going well." Other teachers liked to collaborate with others, but had experienced that their colleagues did not like this and the management of the school did not initiate it. One of the teachers viewed teachers as professionals who know what good teaching is. He said: "To a certain degree, working collaboratively is necessary, but you should not go too far because it can result in having to think the way others want you to think or having to teach in ways you do not appreciate."

The other teachers were highly engaged with their colleagues. They shared their views on education with others and worked collaboratively in order to innovate and work out new ideas and ways of teaching. Two of these teachers felt very stimulated by the school management to do so. They were members of a team which teach the same classes and have meetings every fortnight. Because of the history of the school (in the beginning period of the school there were a lot of students with serious personal problems, there was almost no teaching and learning material and the school had innovative aspirations) the teachers were highly stimulated to help each other and to collaborate. One teacher said: "From the very beginning, the management of the school emphasized collaborative working of the teachers. They believe that

teachers can help each other to improve their work as teachers.” However, another teacher said that his collaboration with his colleagues who taught the same subject was their own initiative and was not stimulated at all by the management of the school. They had written a lot of teaching and learning material themselves and had long discussions about the objectives of education and ways of teaching and learning.

Several times the teachers mentioned conditional factors in the school which, according to them, influenced their teaching. Most of the time they talked about these factors in a rather negative way. Two teachers thought that individual and independent student learning was not possible because of the large number of students in the classroom and the length of the lesson hours. They said: “Classes consist of too many students, and you cannot pay attention to all of them in 45 or 50 minutes.” One teacher said that his time-table consists of so many lesson hours in a row that he had no time to prepare lessons or correct students’ work between the lessons. He was very tired and said that in order to survive the days he felt more or less forced to whole classroom teaching. According to him, this was a style of teaching he felt very comfortable with and which cost him the least energy. Two teachers said that the heterogeneous grouping of students was decisive for their way of teaching: “Because of the large differences between the students, classroom teaching is not possible or should be very short.”

These conditional factors, particularly the negative ones, can in fact be changed in the schools. Some teachers suggested that they would like to teach in other ways if they had more time, if there were fewer students in the classroom, if there was more money, and so on. On the one hand, it would be interesting to see whether they would really teach in other ways if the conditional factors were changed. On the other hand, is also interesting to note that two teachers who worked in the same school and taught the same classes had very different ways of dealing with the same conditional factors. For one teacher, the large number of students in the classroom and the short duration of the lessons were not constraints to letting students work individually and independently. However, the other teacher considered these factors as conditions which kept him from teaching in ways other than whole classroom teaching.

*The Subjects the Teachers Teach*

A third contextual aspect which influences the teachers' work is the subjects they teach. Not all of the teachers said something about their subject, but some did. For example, one teacher was of the opinion that there are subjects which have pedagogical and moral characteristics and subjects which do not have these features. He teaches geography and, according to him, this is a subject which deals with norms and values and can therefore be used for pedagogical matters. He thought that this was not the case with a subject like mathematics. Therefore, he would not like to teach mathematics. In his words,

I would not like to teach mathematics or a related subject. Mathematics has nothing to do with the opinions of people, values, norms, and discussions about these topics, whereas I consider geography as a subject which is very suitable for general educational and pedagogical matters.

Another teacher was convinced that there were subjects in which the human element and creativity are emphasized (for example, the arts) and that there were other subjects in which subject matter knowledge and predetermined answers for problems must be learned (for example, science). He said that he taught these last mentioned subjects. According to him, these subjects place different demands on the teachers. He said:

Subjects are different. In art lessons, you can say to students that they have to create a tower. It does not really matter what kind of tower they make; the most important thing is that they show creativity. In my subject, one plus one always equals two. Students are not free to decide for themselves that it equals three. That requires another way of teaching.

There was also a teacher who worked in a vocational school who made a distinction between theoretical subjects and practice-oriented subjects. He taught English and had the view that students did not like it; they were not interested in English because it is a theoretical subject. Students chose the school because it prepares them for their future work and because there are practice-oriented subjects. Therefore, this teacher thought that he had to make great efforts to make the subject attractive to students.

*General Developments in Society*

The teachers mentioned general developments in society which influenced their teaching. They referred to national educational policy

(for example, working conditions and innovations) and general developments in society (for example, an increasing number of divorces and the development of information technology).

National educational policy in the Netherlands has recently influenced the contents of the curriculum by introducing a new national curriculum (in Dutch: "Basisvorming") in the first years of secondary school. It requires new ways of teaching and learning. All of the teachers talked about these changes. Some of them felt that dramatic changes were taking place, whereas others thought little will change. Some teachers had positive feelings about these changes, while others did not. The teachers who were negative talked a lot about bad conditions for implementing changes in their practice (not getting enough time for the preparation of lessons, lack of proper teaching and learning materials, having to develop their own teaching and learning materials, not being used to teaching in other ways).

The teachers also mentioned other national changes, such as the increasing number of mergers in education and the organizational problems resulting from these mergers. Four teachers worked in rather small schools which recently merged; they are now experiencing some negative effects which influenced their job satisfaction. One of them said: "In this large organization, most information is distributed by formal information channels. However, I do not think that I am better informed."

Finally, the teachers referred to general developments in society which, according to them, influenced students and, consequently, the way they had to deal with them in the classroom. Some teachers mentioned the positive elements of a society in which children are stimulated to stand up for their rights, in which they know a lot about the world, in which they learn to be critical and not to take all things and words for granted. More often, the teachers mentioned negative developments in society, such as less clarity about norms and values which can result in criminal and egocentric behaviour, an increasing number of divorces among the students' parents which cause the students to have personal problems, the students' inability to concentrate on school matters because of the increasing amount of time they watch television, and so on. The teachers said that these developments influenced their teaching. They had to deal with these issues in the classroom, whether they wanted to or not. It required them

to adapt their teaching and they considered these development as very difficult and complicated. One teacher said:

My relationship with the students has changed, because of changes in our society. Nowadays a lot of our students grow up in broken families and that means that you have to deal with an increasing amount of personal problems of students. Several years ago, we had nothing to do with vandalism in our school, but now we occasionally notice that students have damaged objects. That means that you should pay more attention to issues like norms and values in the lessons.

#### *Conclusion and Discussion*

We confined this study to eight teachers, who taught different subjects and differed also in the number of years of teaching experience, so we realize that we should be careful in drawing our conclusions. However, the results of the study indicate that there are differences in teachers' practical knowledge regarding the aspects of conceptions of education. The teachers more or less agreed with each other with regard to the objectives of education and the content of the curriculum but not with regard to the role of the teacher and the students in the teaching and learning process. In their practical knowledge, the teachers appeared to have been influenced by elements of the context in which they work, such as the school culture, the students they teach, the subjects they teach, and developments in society. Some teachers, however, who worked in the same school and who had a great number of contextual factors in common, also differed in their interpretation of the context. This could indicate that it is, above all, the personal interpretation of the context which is important rather than the context itself.

The data suggest that it is not easy to define good teaching in an approach to teaching which focuses on teachers' practical knowledge. The results indicate, however, that teachers' practical knowledge adds new information to the discussion of good teaching when compared with traditional approaches to good teaching which were discussed in this article. Good teaching must not be considered as a standard, but also, or more than that, as personal and contextual. Furthermore, it is clear that teachers have their own theories about good teaching and that it is important to take these into account. A standard approach to teaching is inadequate and it appears that good teaching must be studied from the complex interaction between person and context, which is reflected in teachers' practical knowledge. Studying this knowledge

emphasizes the understanding of teachers, while the other approaches focus on exerting control over teachers by prescribing what they have to do and how they have to think. Research on practical knowledge is more reality-based and gives a description of what teaching really implies.

One of the problems which arise in studying teachers' practical knowledge is that this type of knowledge is characterized as situational, experiential, particularistic, and so on (Carter, 1990). This could serve as a legitimation for very individual views in which everything can count as good teaching. From a scientific point of view, this is not very productive. By emphasizing individual teachers' practical knowledge and staying at the personal and practical level, it is not likely that theoretical insights can be obtained (cf. Carter, 1993; Goodson, 1997; Hargreaves, 1996). Although individual teachers' practical knowledge is valuable, in the end, the individual level should be transcended to a wider contextualized mode (Goodson, 1997). Therefore, it is necessary to look for similarities and differences in teachers' practical knowledge and the contexts in which they are involved, and to search for underlying theoretical principles (cf. Hargreaves, 1996). In this study, the theory about conceptions of education was used to structure teachers' practical knowledge. As such, patterns could be found in teachers' practical knowledge which more or less correspond with positions teachers can take on the objectives of education, the content of the curriculum, and the role of teachers and students in the process of teaching and learning. Furthermore, an attempt was made to discover relevant elements of the context and teachers' interpretations of their contexts which influence their thinking about teaching and learning.

Other problems exist with regard to the quality of the content of teachers' practical knowledge. In the present stage of research on teachers' practical knowledge, it is difficult to qualify much of this knowledge. Teachers' practical knowledge is highly contextualized; it is knowledge which works in practice, but which is not always consistent with objective or scientific knowledge. However, given the elements of the context in which they work, it is very understandable why teachers think about teaching as they do. With regard to the issue of good teaching, we think that teachers' practical knowledge should be seen as continually developing knowledge. It should not be considered as static, but as knowledge in a professional growth perspective, which has developed and has become elaborated over the years and which will



develop further in the future. It is important to investigate to what extent and in what way teachers' practical knowledge changes throughout their careers and what influences this change. In that case, good teaching would be seen more as a process than as a product (cf. Bereiter & Scardamalia, 1993). Developments, improvements, and factors which promote or inhibit this process will then become visible.

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