

VU Research Portal

Teaching Diverse Learners: A Practice-Based Perspective

Bulterman-Bos, J.

2004

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Bulterman-Bos, J. (2004). *Teaching Diverse Learners: A Practice-Based Perspective*. [PhD-Thesis – Research external, graduation internal, VU, Amsterdam].

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

Teaching Diverse Learners: A Practice-Based Perspective

Jacquelien Bulterman-Bos

leescommissie: prof.dr. G. Kelchtermans
prof.dr. F.A. Korthagen
prof.dr. S. Miedema
prof.mr.dr. C.J.M. Schuyt
prof.dr.Th. Wubbels

ISBN 90-6196-523-3

Cover illustration: *De Connoisseurs* by H.J. Scheeres (Dutch, 1829-1864).
Used by kind permission of Simonis & Buunk, Kunsthandel, Ede.
(See Chapter 3, 4, and 9 for a discussion of *educational connoisseurship*.)

Cover: JAB-B, Amsterdam.

Press: Ponsen & Looyen, Wageningen

Copyright: © 2004 J. A. Bulterman-Bos(Jacquelien.Bulterman@xs4all.nl)

VRIJE UNIVERSITEIT

Teaching Diverse Learners: A Practice-Based Perspective

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor aan
de Vrije Universiteit Amsterdam,
op gezag van de rector magnificus
prof.dr. T. Sminia,
in het openbaar te verdedigen
ten overstaan van de promotiecommissie
van de faculteit der Psychologie en Pedagogiek
donderdag 25 maart 2004 om 13.45 uur
in de aula van de universiteit,
De Boelelaan 1105

door
Jacoba Alida Bulterman-Bos
geboren te Ede

promotor: prof.dr. J. Terwel
promotor: prof.dr. N. Verloop
copromotor: dr. W. L. Wardekker

Motivation and Acknowledgements

“My hope is that those of us in the university will be smart enough to learn from what good teachers have to teach us. I hope we will even learn how to see what we are not able to describe in words, much less measure. And, through the consciousness borne of such an attitude, I hope we will be creative enough to invent methods, and languages that do justice to what we have seen. Finally, I hope that through such work, through the primacy of experience and the expansion of our method, our politics will become a liberating force for both understanding and enhancing the educational process” (Eisner, 1988, p. 20).

Writing this dissertation was necessary for me to be able to continue working in education, both as a researcher and as a teacher. I felt confronted with a choice between either leaving the profession because I often could not agree with accepted ‘truths’ in my field, or finding ways to rebut them. Because I wanted to be a teacher since I was young, I decided to stay by embarking upon the research path described herein.

One of my first experiences with the gap between theory and practice — which is my core concern — occurred during my studies of educational theory. It struck me how often I had to read articles in which the failings of teachers were emphasized. This did not correspond with my own experience: I owe much to my teachers. They showed me that the world was wider than the one I had thus far experienced. I think of Mr. Bosma, my teacher of Dutch, who not only made me more familiar with literary and cultural history, but also drew a relationship between the world of literature and my home milieu. He proposed putting the Bible on my reading list, thus opening my eyes for the impressive poetic qualities of this book. I think of Mr. Jan van de Putte, my physics teacher, who directed our school choir. Words cannot explain how much joy and fun this choir gave me. Music became one of the pillars on which my life is founded. I think of

Mr. Evert van Baren, who did not only understand how to explain physics problems clearly, but also gave the impression that he understood *me*. And I remember how Mr. Konijn looked at me when I had failed my mathematics test. Only a few words about my seriously ill mother were necessary for him to understand what was the matter with me. I had problems reconciling these personal experiences with the images I got as a university student where the teacher in the educational literature always needed to improve and never seemed to have something to contribute.

Nevertheless, I also retain good memories of my studies at Utrecht University. Lennart Vriens gave the very first course in educational theory which was particularly exciting in itself. I remember interesting discussions with Co Boonman, not only on comprehensive reading but also on history. Eduard Bol, supervisor of my master's thesis on comprehensive reading freed me from the idea that research was a matter of complex procedures that actually detracted the attention from the object of study. His line that 'research is just a matter of looking carefully' is still in my mind. I also remember the pleasant atmosphere during Jan Terwel's lectures. The comprehensive high school — which in those days received a lot of attention — really appealed to me. I sympathized with the individual approach that belonged to the philosophy of the comprehensive school. A common curriculum for all students seemed appropriate, especially, as I thought, for one of my younger brothers, who was an intelligent boy, but did not realize his potential at school.

In spite of the assertions made to me that an educational theorist did not need practical experience, I felt lucky that I got the chance to work at the Factor in Zwolle as a teacher and a student counsellor. Piet Rozendal, my mentor, introduced me to the tricks of the teaching trade.

During these days, the insights I had developed during my university study were profoundly challenged. I often desperately asked myself how I had ever come to think of an individual approach: just as the current fifty minutes lesson ended, a new crowd of students was waiting at the door. And I was as lucky as to be a student counsellor, which allowed me to take students aside! I realized my fellow teachers did not have a private room like mine, nor officially assigned time for individual contact.

Lots of ideas that had inspired me as a student slipped away. As a student counsellor I had started out very optimistically, believing that every child could learn — provided they received patient and adequate teaching. I found out, however, that the problems of my students were far more complex than I had for-

merly envisioned. They needed much more than the hour extra attention that I was able to give them. Metaphorically speaking, my students came to me soaking wet but instead of a large towel, I could only offer them a handkerchief.

My experience had as its consequence that when I was offered a position as a researcher at the teacher training college of Windesheim, I could only do this research by starting from the perspective of the teacher. I am grateful for the way in which Hans Vonk, the supervisor on behalf of the Vrije University, encouraged this, supplied relevant literature for this approach and gave me a lot of freedom.

When it turned out that this project could possibly become a dissertation, Jan Terwel was willing to act as promotor. For him, this entailed a risk since he had not been involved in the definition of the study and was only consulted after the data had been gathered. In this respect, my request that he become my advisor was also a request for trust. During the process, his faith in me must have been challenged, but I hope he was not disappointed. I appreciate the almost fatherly way in which Jan not only monitored my thesis but also my personal well-being.

Nico Verloop's joining the committee marked a new phase in my professional development. In subtle but clear ways, Nico makes high demands upon one's competence. I cannot put my finger on the reasons why Nico's presence was so challenging. Without much persuasion, for instance, he contributed to the decision that this dissertation is written in English. The presence of Nico in my committee confirmed one of the findings of this thesis: it not only matters what a teachers says and does, but it also matters who he or she is.

Wim Wardekker was the last one to formally join the committee. Informally, however, he is the first advisor of this study. I got to know his name when, as a student, I subscribed to one of the national educational research magazines. I got to know him personally when I became a member of the Sweelinck Cantorij in Amsterdam where he sang as well. At that time, Wim was one of the educational researchers I knew with whom I could relate. He belongs to those pioneers who acknowledged the relativity of (the pursuit of) nomological theory in education and combined this insight with an acknowledgement of the value of practical knowledge. Only after Wim had left the Cantorij did I realize that I had built up the habit of consulting him during the break of our rehearsal.

The meetings with my thesis advisors were always vivid and vibrant. Without any exception, we always addressed fundamental issues. I experienced this as a blessing.

Part of the analysis of the data of this study took place in the United States of America. This occurred thanks to the permission of Koos Slagter, then director of the Education Faculty at Windesheim. The year I spent in the USA contributed to the fact that I was able to publish for an international forum. Because I got to know the American educational system better (helped by my good guide Dick Bulterman), I observed how many American problems — as well as solutions — were innocently imported into the Netherlands via the academic literature, thus posing questions that were less relevant within our system. During this year, I became more aware of the cultural context in which research results were obtained.

The year in the United States was made possible thanks to Andy van Dam, professor at Brown University in Providence, Rhode Island. He brought me into contact with Ted Sizer, head of the Coalition of Essential Schools at Brown and former dean of the Harvard Graduate School of Education. Ted invited me to join the staff at the Coalition. I thank my colleagues David Allen, Donna Muncey, Joe McDonald and Pat Wasley for their stimulating discussions.

I am also indebted to people who taught me things without ever have taken course from them. Chief among these was Prof. dr. B. Goudzwaard, professor of economics at the Vrije University. He gave presentations on his views of economic growth and the philosophy of science to a broad range of social organizations with which I was associated. In his own amiable way, he showed how fundamental the presuppositions of science were. In this way, he taught me not to take research results as if they concern indisputable truths. I felt his ideas — which were related to the legacy of Vrije University — also applied to my own field of study. For this reason, taking my doctoral degree at Vrije University was a deliberate and positive choice. I consider the concept of a university that acknowledges the importance of values in science as utterly modern.

Some people to be thanked are close to home. I would not have loved education so much if I had not had a loving mother and grandmother who were both examples of good educators. As my teacher of English writing, Dick Bulterman was both stern and supportive. I won't easily forget the red stripes in my first English draft, illuminated with the printed word 'ugly' in the margin. Without Dick's loving support, this book would not have been written. Frans and Willemijn Bulterman are now so grown up that they could be involved with the ups and downs of this dissertation. I thank them for the support they gave me in their own loving way. Last but not least, Michael Minnema provided insightful comments on the manuscript and gave moral support at crucial moments.

I wrote this dissertation for the community of scholars, but I also wrote it for all my friends who are teachers. I love to hear your stories about your work. Secretly, I have always checked whether your views corresponded with the perspective that I was constructing. In the same way, I used every glimpse I could pick up from your work, especially at the Hildebrand- van Loonschool in Amsterdam. To paraphrase Eisner's quote at the beginning of this chapter, my hope is that those of us in the university will be smart enough to learn from what you have to teach us. I hope that this dissertation will contribute to the acknowledgement of the primacy of experience in universities and among policy makers. I hope that our contribution in universities will become a liberating force for you that both enhances our common understanding of education as well as contributes to the status of teachers.

Table of Contents

Motivation and Acknowledgements	v
Table of Contents	xi
1 Introduction	1
1.1 Overview	1
1.2 Research Questions and Definitions	2
1.3 Structure of This Study	3
1.4 References	5
2 Method of Inquiry	7
2.1 The Need for a Practice-Based Approach	7
2.2 Narrative Analysis as Pursued in This Study	8
2.2.1 <i>Conversations.</i>	11
2.2.2 <i>Creating an adequate context for a good conversations.</i>	13
2.3 Selecting Teachers	15
2.3.1 <i>Preparing teachers for the interview.</i>	16
2.4 Reflections on the Interviews	16
2.4.1 <i>Reliability and validity of the interviews.</i>	17
2.5 Analysis of the Interviews	18
2.5.1 <i>Formulating patterns.</i>	20
2.5.2 <i>Constructing a practice-based perspective.</i>	22
2.6 Reflection on the Subjectivity of the Researcher	23
2.7 The Concepts of Theory and Practice	24
3 Objective Observation of Diverse Learners	27
3.1 Introduction	27
3.2 Literature: Observation	28
3.2.1 <i>Concepts and definitions.</i>	28
3.2.2 <i>The theory on teacher expectations and it's reviews.</i>	28
3.2.3 <i>Quality observations?</i>	30
3.2.4 <i>Research questions.</i>	31
3.3 Dutch Background	32

Table of Contents

3.4	Results: Teacher Perspectives on Observation	32
3.4.1	<i>Triggered observation.</i>	33
3.4.2	<i>Incidental observation.</i>	33
3.4.3	<i>Intentional observation.</i>	34
3.4.4	<i>Long-term observations.</i>	36
3.4.5	<i>Conclusions about the perspectives of teachers on observation.</i>	37
3.5	Making Sense of the Perspectives of Teachers	38
3.5.1	<i>A traditional view of objectivity.</i>	39
3.5.2	<i>A transactional view of objectivity.</i>	40
3.6	A Practice-Based Perspective on Quality Observations	42
3.6.1	<i>Reframing quality observations.</i>	42
3.6.2	<i>Reframing the reliability and the validity of observation.</i>	43
3.6.3	<i>The decisive role of social practice.</i>	44
3.6.4	<i>Conclusion: rating the quality of teacher observations.</i>	44
3.7	A Comparison with the Theory on Teacher Expectations	45
3.8	Recommendations	46
4	Classroom Evaluation of Diverse Learners	47
4.1	Introduction	47
4.2	Literature: The Pedagogical and Measurement Goals of Evaluation	48
4.2.1	<i>Arguments for and against the two goals of evaluation.</i>	48
4.2.2	<i>Conclusion and research questions.</i>	50
4.3	Dutch Background	51
4.3.1	<i>Evaluation in the present situation.</i>	52
4.3.2	<i>Historical overview of the Dutch discussion on selection.</i>	53
4.4	Results: The Perspectives of Teachers on Classroom Evaluation	56
4.4.1	<i>Scope of our patterns.</i>	56
4.4.2	<i>Adaptation strategies to avoid failing grades.</i>	57
4.4.3	<i>An example of the combination of adaptation strategies.</i>	65
4.5	A Practice-Based Perspective on Classroom Evaluation	66
4.5.1	<i>Judging the adaptation strategies from a pedagogical perspective.</i>	66
4.5.2	<i>Judging the adaptation strategies from a measurement perspective.</i>	67
4.5.3	<i>Conclusion: rating the quality of classroom evaluation.</i>	71
4.6	Recommendations	72
5	The Imitation Tendency Among Students	73
5.1	Introduction	73
5.2	Literature: The Imitation Tendency	74
5.2.1	<i>Reference group theories and group composition theories.</i>	74
5.2.2	<i>The social comparison theory.</i>	76
5.2.3	<i>René Girard's mimetic hypothesis.</i>	78
5.2.4	<i>Social Constructivist literature.</i>	80
5.2.5	<i>Research question.</i>	82
5.3	Methodology	82
5.4	Results: Teacher Perspectives on the Imitation Tendency	82

Table of Contents

5.4.1	<i>Positive aspects of imitation.</i>	83
5.4.2	<i>Negative aspects of imitation.</i>	86
5.5	A Practice-Based Perspective on the Imitation Tendency	92
6	Dealing with the Imitation Tendency Among Students	95
6.1	Introduction	95
6.2	Literature: Dealing with the Imitation Tendency	96
6.2.1	<i>Research question.</i>	97
6.3	Methodology	97
6.4	Results: Teachers' Perspectives on Dealing with the Imitation Tendency	98
6.4.1	<i>Six categories about dealing with the uniformity pressure.</i>	99
6.5	A Practice-Based Perspective on Dealing with the Imitation Tendency	116
6.5.1	<i>What constitutes room for addressing diversity.</i>	119
6.5.2	<i>Sophisticated management and the direction of the imitation tendency.</i>	121
6.5.3	<i>Conclusion: rating the quality of dealing with the imitation tendency.</i>	124
6.6	Recommendations	125
7	An Evaluation of Two Models of Teaching Diverse Learners	129
7.1	Introduction	129
7.2	Literature: Two Models of Teaching Diverse Learners	129
7.2.1	<i>The technocratic-adaptive model of teaching diverse learners.</i>	130
7.2.2	<i>The interactive-inclusive model of teaching diverse learners.</i>	132
7.2.3	<i>Research question.</i>	135
7.3	Methodology	135
7.4	Dutch Background	136
7.5	Results: The Perspectives of Teachers Versus the Models	136
7.5.1	<i>An adaptive phase is hard to manage.</i>	137
7.5.2	<i>Self-work creates room to pay attention to individual students.</i>	139
7.5.3	<i>Adaptive teaching is generally superficial.</i>	142
7.5.4	<i>Self-work and the lack of a sense of community.</i>	143
7.5.5	<i>Adaptive education as 'better' education in general.</i>	145
7.5.6	<i>Adaptive education as impersonal education.</i>	146
7.5.7	<i>Compromises in broad streams.</i>	149
7.5.8	<i>The 'motivational power' of content.</i>	151
7.5.9	<i>Adaptation of curriculum is necessary in broad heterogeneous classes.</i>	154
7.5.10	<i>The borders of streams remain visible in integrated classes.</i>	155
7.5.11	<i>Whole class teaching is not necessarily uniform education.</i>	159
7.6	Making Sense of Teacher Perspectives: Can Schools Create Equality?	160
7.6.1	<i>Detracking.</i>	161
7.6.2	<i>The situated approach.</i>	163
7.6.3	<i>Other ways of stratification.</i>	165
7.6.4	<i>Conclusion: The paradox between different and equal.</i>	166
7.7	A Practice-Based Theory	166
7.7.1	<i>Evaluation of the technocratic-adaptive model.</i>	166
7.7.2	<i>Evaluation of the interactive-inclusive model.</i>	168

Table of Contents

7.7.3	<i>Conclusion: rating the quality of teaching diverse learners.</i>	168
7.8	Recommendations	169
8	Embracing Opposites	171
8.1	Introduction	171
8.2	Embracing opposites	171
8.3	Paradoxes and similar concepts in the literature	174
8.4	Paradoxes and theory.	175
8.4.1	<i>Developments in our field.</i>	176
8.5	Conclusion: Teaching diverse learners requires thought, action and personality.	179
9	Conclusions, Reflections and Discussion	181
9.1	Introduction	181
9.2	Conclusions	181
9.3	Re-Examining the Research Questions	183
9.4	Reflections on Method	185
9.4.1	<i>Method.</i>	185
9.4.2	<i>Limitations.</i>	186
9.5	Discussion on the Value of Our Results	188
9.6	Closing Comments	189
10	Samenvatting	191
11	Curriculum Vitae	201
A	Tables	203
A.1	Teachers Interviewed (By Name, Sex, Subject and Streams)	203
B	References	205

1

Introduction

This book examines the relation between educational theory and educational practice in view of the topic of 'teaching diverse learners' in secondary education in the Netherlands. It describes the perspectives of teachers who teach classes in which students of different performance levels have been mixed, evaluates these perspectives by using the literature and develops a new practice-based perspective on teaching diverse learners. Our contribution can be summed up in the conclusion that teaching diverse learners involves dealing with paradoxes. It is more personal, more relational and less technocratic than often assumed.

1.1 Overview¹

Teaching diverse learners — or adapting instruction to differences among students — is one of the most widely addressed issues in educational theory (Doyle, 1985). As the present study shows, however, the stories of practitioners reveal that in these countless studies, basic problems of teaching diverse learners are unaddressed. Listening to the stories of practitioners and making sense of them by using the literature appeared to be a seminal way of constructing a practice based perspective on teaching diverse learners.

In our field of study, the value of practical knowledge is increasingly acknowledged. More and more, researchers start collecting the practitioners' stories or become active as teachers (DBR 2003). Our study underlines the necessity of this development.

1. This project is situated in the research program 'Strategic Learning in the Curriculum' at the Vrije University Amsterdam, Faculty of Psychology and Education, Department of Education.

1.2 Research Questions and Definitions

The topic of 'dealing with diversity' has been important in the innovation of education, especially in secondary education. At the beginning of the 1990's, the '*Basisvorming*' was introduced in secondary education in the Netherlands. This innovation was preceded by an intense discussion in the educational sector about teaching diverse learners. Traditional education was criticized because it was said to lead all learners through content in the same way. Many experts stressed that traditional education was never designed for learning; it was designed for sorting. After a non-streamed primary school, students were assigned to one of four streams representing four levels of difficulty. Many experts criticized the selection in secondary education. They believed that diversity would better be addressed within the class by more individualized teaching formats. Their pleas for the integration of streams were generally accompanied by pleas for 'internal differentiation', also called 'adaptive education' or 'customization'.

Practitioners, however, did not see much in the forming of heterogeneous groups, nor did they believe that new teaching strategies would bridge the differences in performance (Smeets & Buis, 1986, De Jong & De Jong, 1990). After a long period of intense discussion, the Minister of Education, pressured by practitioners, decided to refrain from obliging schools to integrate the different streams. Instead of putting all students in the same class, all students got the same curriculum. The discussion about heterogeneous grouping died down but the issue of adaptive education remained on the agenda.

The forming of the *Basisvorming* is the historical background of this study but this innovation is not the topic of this study. We start from the assumption that teaching diverse learners is an intrinsic part of education in general. To some extent, all classes are heterogeneous. Apart from any kind of innovation, this study focusses on the practical aspects of teaching diverse learners. We compare the perspectives of practitioners with existing theories.

The following questions are central:

- 1) What are the perspectives of teachers regarding teaching diverse learners: how do teachers describe the way in which they deal with the diversity in their own classes?
- 2) What is the relationship between the perspectives of practitioners and the literature on teaching diverse learners? Does the literature correspond with the perspectives of teachers and do the perspectives of teachers correspond with the literature? Does a gap exist?
- 3) Is it possible to construct a new, practice-based perspective regarding

teaching diverse learners that builds on the perspectives of teachers and the corresponding literature?

The perspectives of teachers were collected by listening to the stories of teachers who work in mixed classes consisting of two, three or four sets of adjacent streams. We did not concentrate on students who had an indication for special education. This shows some of what we mean by *diversity*. Apart from this, we invited our teachers to define the term '*diversity*' in terms of their experience. Diversity in performance appeared to be central in all conversations; therefore the present study primarily focuses on performance diversity. This concurs with Cohen (1995), who stressed that academic characteristics are the most powerful of the status characteristics in the classroom because of their obvious relation to classroom activities.

In this study, the four levels during the first phase of the Dutch secondary school system are denoted by 'the lower level', the 'intermediate level', the 'higher intermediate level' and the 'higher level'.

1.3 Structure of This Study

Chapter 2 describes our methodology. Chapters 3-6 describe the perspectives of teachers on several aspects of teaching diverse learners: observation, evaluation and dealing with the imitation tendency. These perspectives are compared with the literature. In Chapter 7 two existing models on teaching diverse learners are compared with the perspectives of teachers. The chapters 3, 4, and 6 conclude by presenting a paradox. In Chapter 8, we use the literature to understand what it means to embrace opposites. Chapter 9 summarizes our conclusions and reflects on our work.

Chapter 2: Methodology

The present study starts from the principle that, in order to develop a perspective that can be useful for practitioners, the experience of practitioners must be taken seriously. We therefore used a narrative approach: we offered teachers the opportunity to tell their own stories on teaching diverse learners and only structured this interview with a few topics. We did not take the perspectives of teachers for granted as if they represent the last truth on education. Instead, by referring to the literature, we analyzed whether the perspectives of teachers make sense. This enabled us to distinguish between good and less good teachers.

Chapter 3: Objective Observation of Diverse Learners

This chapter concentrates on the question of how teachers who are engaged in an interpersonal relationship can be objective. To answer this question, we discuss recent epistemological insights and compare them with the perspectives of teachers. The resulting view of objectivity is also a guiding principle of our study in total.

Chapter 4: Classroom Evaluation of Diverse Learners

The perspectives of teachers regarding classroom evaluation in mixed classes show that teachers use adaptation strategies to avoid failing grades among their students and to challenge these students towards better achievement. We analyze whether this is an appropriate way of evaluation, thus formulating a perspective on evaluating diverse learners.

Chapter 5: The Imitation Tendency Among Students

The perspectives of teachers show that students tend to imitate each other. These perspectives correspond with the literature on social comparison and mimesis. The imitation tendency may support the learning process, but it may also cause (aggressive) rivalries when students do not have 'the same' as others, which complicates the addressing of diversity in the class.

Chapter 6: Dealing with the Imitation Tendency Among Students

Some teachers actually do not deal with the imitation tendency; the imitation tendency deals with them. To avoid rivalries, they reinforce uniformity within the class: they find little room for addressing diversity. Other teachers 'use' the imitation tendency and find ample room for addressing diversity. We analyze why this occurs, thus constructing a component of a perspective on teaching diverse learners.

Chapter 7: Evaluation of Two Models of Teaching Diverse Learners

From the literature, we distill two models that prescribe how teaching diverse learners should occur: a technocratic-adaptive model and an interactive-inclusive model. The first model stresses the need for adaptation to individual characteristics of diverse learners, while the latter stresses the need for integration of diverse learners into the group. We compare these models with the perspectives of teachers and conclude that neither model represents a superior teaching strategy in general. Both may be necessary; it depends on local factors whether integration or adaptation is appropriate: one should know the concrete situation before one

can decide which teaching strategy is appropriate. This shows the limits of abstract, theoretical representations of what is good education.

Chapter 8: Embracing Opposites

Our study showed that teachers continuously need to balance between opposing valuable goals; between adaptation and provocation; between individuality and communality; between involvement and detachment, between differentiation and integration. Embracing paradoxes is impossible in a rational way. Reconciling opposites is a practical activity that regards the teacher's personality as a tool.

Chapter 9: Conclusions, Reflections and Discussion

This chapter contains summaries of the previous chapters, provides answers to our research questions and discusses the limitations of our study as well as our contribution to existing insights.

1.4 References

In order to improve readability of this study, all references to works in the literature have been collected into a single references section, starting on page 205.

Chapter 1
Introduction

2

Method of Inquiry

Our study is based on a the approach of 'narrative inquiry', in which the narratives of teachers are used to create a new perspective that can help increase our understanding of teaching diverse learners. This chapter presents our method of obtaining, collecting and analyzing the narratives of our subjects. We describe who we interviewed, how we interviewed them and how the results of our conversations were collected and analyzed.

2.1 The Need for a Practice-Based Approach

During the past twenty years, the character of research on education has changed. Much of the behaviorism-driven research of the 1960s and 1970 was designed to find methods and strategies to make education work. It concentrated on various discrete, decontextualized teaching behaviors. A growing number of researchers, however, came to acknowledge that the results of such research were poorly anchored in the practical, day-to-day problems of teachers. When pre-service teachers entered practice or in-service teachers returned to the classroom, the information from this kind of research was easily 'washed out' (Brown & McIntyre, 1993; Zeichner, 1999; Zeichner & Tabachnick, 1981).

Schön (1983) showed that practical situations are 'divergent', which means that in practice, diverse (and even contradicting) goals often must be acknowledged concurrently. Research is usually designed to determine the most efficient way of reaching a certain goal. In situations in which more goals need to be acknowledged, however, the prescriptions from research don't always make sense. Schön argued that this places the practitioner in the dilemma of 'rigor' or 'relevance': he or she either rigorously applies the prescriptions from research — which implies that valid goals are ignored — or the practitioner prefers 'relevance' which implies that the prescriptions of research are adapted to the

present situation (Schön, 1983). Researchers came to realize that what Hargreaves and Fullan (1992) called the 'Top-Down' approach and Schön called 'the model of technical rationality', emphasized the failings of teachers and ignored their special skills and personal qualities (Elbaz, 1983, 1997). This motivated an increasing number of researchers to try to understand what teachers know and how they learn. This implied an acknowledgement of the value of teachers' practical knowledge and a realization that theory should address teachers' interpretive frames for understanding. Thus, in contrast to past practices, much more attention is now paid to both the process of teaching as it occurs in natural situations and to the cultural, historical, social, and institutional contexts in which teachers operate (Cochran-Smith, 1990; Elbaz, 1983; Feiman-Nemser & Floden, 1986; Fenstermacher, 1994; McDonald, 1988; Putnam & Borko, 2000; Shulman, 1986; Verloop, 1992; Wardekker, 1989).

The work reported here concerns the experiences of teachers regarding the teaching of diverse learners. We believe that in order to develop insights that may help teachers in practice, the perspectives of practitioners should be taken into account (Brown & McIntyre, 1993; Cochran-Smith & Little, 1990; Elbaz, 1983; Feiman-Nemser & Floden, 1986; Fenstermacher, 1994; Hargreaves & Fullan, 1992; McDonald 1988; Shulman, 1986; Verloop, 1992; Wardekker, 1989).

To discover the teachers' perspectives, we had conversations with them (Florio-Ruane, 1991). The *Narrative* (or story) is an important means of capturing the richness and indeterminacy of teachers' experience and the complexities of their understanding. It offers ways to ascertain which questions teachers ask and which frameworks they use in order to improve their own classroom practice (Carter, 1995; Cochran-Smith, 1990; Connelly & Clandinin, 1990; Doyle, 1997).

2.2 Narrative Analysis as Pursued in This Study

Polkinghorne (1988) distinguished between two kinds of research with narrative: *descriptive narrative research* and *explanatory narrative research*. The purpose of descriptive narrative research is "to produce an accurate description of the interpretive narrative accounts individuals or groups use to make sequences of events in their lives or organizations meaningful" (p. 161,162). The research does not construct a new narrative, it merely reports existing ones. In explanatory narrative research, narrative explanations are used to gain understanding on certain issues. In this respect, the researcher creates a *new perspective*. Rather than questions such as 'did it really happen this way', this kind of research uses the 'explanatory pow-

er' of stories in order to gain understanding in *why* things happened. Historians often use this type of research. The argument does not produce certainty, it produces likelihood. The conclusions of narrative research remain open-ended. New information or argument may convince scholars that the conclusion is in error or that another conclusion is more likely (Polkinghorne, 1988).

Referring to a later publication by Polkinghorne, Elbaz (1997) presented a similar distinction on which she elaborated. One kind of narrative research is "analysis of narratives", which is research in the paradigmatic mode (Bruner, 1986), while "narrative analysis" is research in the narrative mode. The latter produces storied accounts which render the data meaningful. It is intended to create new meaning. Elbaz adds that, while the former type of narrative research has a fairly long tradition in social science, the latter is both more recent and poses a more radical challenge to accepted forms of inquiry. She typifies this kind of research as 'research against the grain'. Narrative analysis constitutes a challenge to the prevailing logistic view which underlies the technical rationality of most educational research and development. "Like any new methodology competing for attention and acceptance, narrative research encounters difficulties; the nature of these difficulties will be heavily influenced by social and cultural context. In North America, the number of researchers doing narrative work seems to have reached a "critical mass" and narrative researchers no longer need to argue for the legitimacy of their method with every new study. In smaller countries the academic community is likely to be more cautious and conservative. In Israel, for example, narrative work is viewed with great interest, particularly among researchers who are close to the schools; nevertheless, the question: "Yes, but is it research?" is still raised frequently" (Elbaz, 1997, p. 77).

Elbaz identifies several reasons why narrative analysis is 'against the grain'. The least problematic is the idea that it was important to have an understanding of teaching from an 'emic' perspective; knowledge of teaching from the inside rather than from the vantage point of an observer. On this ethnographic understanding of narrative, teachers become the informants of researchers. Another assumption of this type of research is that 'top-down' prescriptions have been unsuccessful in improving teaching. Educational practice can only be changed from inside, by practitioners working together, often with the help of researchers. This assumption "leads to a 'problematic' view of the theory/practice relationship according to which knowledge about teaching will be generated starting from the impetus of practitioners to share and develop their understanding of their work" (p. 77, 78). A third assumption is that educational theo-

Chapter 2
Method of Inquiry

ries need to find a place in interaction with the personal narratives of schooling told by teachers, administrators and pupils (Clandinin & Connelly, 1987). In research-practitioner relationships, teachers have long been silenced through being used as the object of study. The purpose of narrative research is to gain increased understanding of the multitude of meanings that are created by practitioners and by researchers working together, and to thereby empower all the participants in the process. Narrative analysis questions the traditional power relations between researchers and teachers.

“This search for a different kind of knowledge, knowledge which empowers rather than making it possible to predict and control, is a significant reconceptualization of the purpose of educational research. From a political perspective, it amounts to a relinquishing of the power traditionally claimed by educational researchers to give advice and influence decision-making on the basis of warranted knowledge that only they possess.”
(p. 78)

Elbaz states that the knowledge of teachers is no less valuable than the theoretic formulations of the researchers (p. 79; we will elaborate on this in Chapter 3). Furthermore, according to Elbaz, narrative research constitutes an alternative way of conceptualizing human nature.

“The idea that we live our lives as we tell our stories puts into question many psychological formulations of human nature because it implies that personality is much more dynamic and open than many theories allow, it is always in interaction with the social and cultural stories available to us, and academics don’t know more than ordinary people do about their own stories. All of this rests on a rethinking of the role of psychology (Sarbin, 1986; Bruner, 1986) and, perhaps more importantly, require us to redefine our understanding of the terms objectivity and subjectivity (Barone, 1992; Eisner, 1992)” (p. 78)

Thus explained Elbaz the differences between narrative analysis and other ways of research with narrative. We will elaborate on Eisner’s view of objectivity in Chapter 3. The view of objectivity presented in Chapter 3 has been a guiding principle of our study in total.

This dissertation is set in the approach of narrative analysis described above. It’s primary goal is to use the perspectives of teachers to learn more about the educational reality concerning teaching diverse learners. The question is not whether we give an adequate representation of the way in which teachers presently view their work, but whether we can use the perspectives of teachers to

create a new perspective that may serve as a tool for other teachers to explore their own practical situation and that may help teachers to address local situations in classrooms. Not 'truths' but 'understanding' is our primary aim. Such perspectives-to-be-created — in the words of Doyle — “do not seem to lead to warrants in the conventional sense that we have come to associate with “science”. They lead, rather, to insights and interpretation within a multitude of renderings and meanings. Thus, 'findings' appear to be much more indeterminant than promised by the conventional model of naturalistic science” (Doyle, 1997, p. 95). In this study, thus, we use the perspectives of teachers in order to construct “a provisional model that seems to account, in at least a limited fashion, for how things work” (Doyle, 1997, p. 97).

2.2.1 Conversations.

As Doyle emphasized in the same publication, teaching can only be known through story. Story offers ways to ascertain which questions teachers ask and which frameworks they use in order to improve their own classroom practice (Carter, 1995; Cochran-Smith, 1990; Connelly & Clandinin, 1990; Doyle, 1997). From the perspective of the teacher, opening up one's classroom by telling stories about one's practice is a challenging activity. For both the researcher and the teacher, such an enterprise will only be successful if undertaken in an atmosphere of cooperation and trust (Elbaz, 1997).

According to Florio-Ruane (1991), whose background is in ethnography, 'conversation' as a research method is very likely to yield stories as data. Buchmann (1983) has advocated 'conversations' as a way to transcend status differences that usually separate teachers and researchers. In conversation, she argues, theory is forced to share the floor with practitioners' knowledge and all participants are encouraged to address the values implicit in their work. Van Manen (1977, p. 218), referring to Gadamer (1975), defines conversation as “a type of dialogue which is not adversative but, as Socrates expressed it, 'like friends talking together'. This programmatic idea of method as friendly dialogue characterizes all phenomenological social sciences”. In conversations, thus, there is no fixed verbal stimulus. Other ethnographers use the term 'semi-structured interviews' for what seems to be a same kind of discourse. According to Wolcott (1997), semi-structured interviews “do not follow a fixed sequence of predetermined questions. They capitalize on the fact that the ethnographer is the research instrument”. In this dissertation, we use both the term 'conversations' and '(open) interviews' to refer to the kind of discourse that took place.

We realized that a degree of formalization by predefining questions and fixing their order would make the analysis of the interview easier. Concerning the relationship aspect of human communication (Watzlawick, Beavin & Jackson, 1970), however, this would have sent the message that the teachers were objects of study rather than experts from whom we could learn. Another important reason for maintaining an open structure was to allow teachers to make contributions that went beyond the initial framework of our question set. By too rigidly defining a fixed set of questions, we would miss ascertaining aspects of teacher experience that could not have been predefined, simply because we did not know about them.

Doyle (1997, p. 93) argues that the epistemological stance ‘plays itself out of the practical world of coming to know teaching’. Attempts to seek warranted beliefs may turn out to be counterproductive, because these attempts may distort the information. “What we came to know about teaching through these methods¹ was not ‘true’ at all, regardless of how carefully investigators attended by their rules. The observations may have been conducted ‘objectively’, but they were not about the phenomenon of teaching”. Taking this into consideration, we feared that formalizing the interviews would occur at the cost of the spontaneity and vividness of information. We surmised that spontaneous remarks could provide clues towards perspectives not seen before that might yet be important in understanding the practice of teaching diverse learners better. This is another reason why we preferred conversations — open interviews that were only structured by a few topics — over more formalized open interviews.

One of the reasons why other researchers prefer a more closely defined interview-format is that narratives, as Polkinghorne (1988) explained, are context-sensitive — both in their telling and in the meaning they give to events. Their form and content are responsive to the aims and conditions of the interview situation. The story is the result of the total situation: the teller of the story, the codes of the story, and the hearer of the story. The personal interpretations of the researcher influences the information obtained. A more closely defined interview format would have allowed researchers to be more accountable towards outsiders for the verbal stimulus that occurred during the interviews. We felt, however, this did not prevent the researcher from influencing the information obtained. A more formal attitude of the researcher would have influenced the situation as well and the one teacher would have reacted differently on this than

1. Doyle refers to research on teacher effectiveness.

the other. Mishler (1986) has argued that interviewing needs to be understood as a discourse, not a constant stimulus provoking a measurable response. Researchers undergo changes as they gather data, and the people interviewed affect those doing the interviewing. We found that formalization would not encourage the finding of a more appropriate story.

Whether conversations would yield sufficiently significant information had to be determined in practice. We tried out two interviews² with two different teachers. We considered their stories to be useful and decided to continue this way.

To offer the teachers the maximum opportunity to approach the subject of teaching diverse learners from their own perspectives, we conducted open interviews with a flexible format. We felt we needed to define beforehand the aspects of teaching that needed to be addressed. For this, we applied a standard planning model, consisting of entry situation, learning goals/content, evaluation, learning processes, lesson format, and media (the 'Didactical Analysis or DA-Model' (De Corte, Geerligs, Lagerweij, Peters & Vandenberghe, 1981).³ The interviewer did not introduce the DA model as such to the teachers, realizing that such models are not framed in the language used by practitioners (Clark & Yinger, 1978; Peterson, Marx & Clark, 1978; Shulman, 1980; Yinger, 1977; Zahorik, 1975). The common sense-version of the DA-model was also framed in terms of an average lesson. In order to understand how teacher dealt with diversity, the interviewer asked them to describe an average lesson and helped the teacher consider whether differences played a role during any phase of the lesson and addressed issues that do not generally occur in every lesson later during the interview.

2.2.2 *Creating an adequate context for a good conversations.*

Interviews are context-sensitive. This implies that some contexts may foster an authentic expression of the story of the teacher, while other contexts may foster a need to tell stories that are primarily designed to present the self in socially valued images (Paget, 1983). We considered several ways to encourage the rise of a context that would foster the expression of an authentic story.

-
2. These two interviews were conducted by my former colleague Arie Louter and myself. The rest of the interview we conducted only by myself. All these interviews were treated in the same way, because the interviews that were conducted by two researchers did not seem to differ from the interviews that were conducted by one interviewer.
 3. I thank my former colleague Arie Louter, who suggested using the DA-model for structuring the interviews.

In the historical situation in which the interviews took place, teaching diverse learners was a sensitive subject. A policy decision by the government on integrating classes in secondary education was at hand, and research had shown that the majority of teachers were opposed to this decision (Smeets en Buis, 1986, De Jong en De Jong, 1990). In this situation, we moved away from political implications by stressing that teachers were confronted with diverse learners irrespective of the formal composition of their class: to a certain extent, all classes are heterogeneous. We invited teachers to share their experience with us, stressing that much had been published and said about heterogeneous classes, but that the experience of practitioners had not been used. The teachers could help us and beginning teachers as well.

Noddings (1986) emphasized the importance of collegiality in research on teaching. In narrative analysis, a sense of equality between participants is particularly important (Hogan, 1988). Paget (1983) proposed that solidarity should be established between the interviewer and the interviewee and that a context should be built in which both people are engaged in a process of trying to understand important aspects of their lives. She emphasized the value of describing similarities between their own and an interviewee's experience. In the same vein, we considered 'role-taking' an essential criterion for the objectivity of qualitative research, both as a process of self-insertion in the other's story as a way of coming to know the other's story as well as giving the other a voice (Connelly & Clandinin 1990; Elbow, 1986; Smaling 1990). In the letter we sent to the teachers, we explained that our interviewer had had experience as a teacher. During the interview she, on the one hand deliberately identified with a beginning teacher who was eager to learn from an expert. On the other hand, as a teacher, she could relate to the interviewees. In this way, she tried to encourage an atmosphere of equality and tried to convey the message that she considered the interviewed teachers to be knowledgeable.

We also realized that the interviewer should "speak the language" of the teacher. Since teachers are focussed on addressing practical issues, we primarily focussed our interviews on what teachers did and observed; we turned to opinions only after more concrete issues had been addressed.

The profession of teaching is very complex. As McDonald (1992) puts it: teaching is an uncertain craft. Often, problems are managed rather than resolved (Lampert, 1985). We realized that it should be natural that not all problems could be solved. In our letter, we rendered problems — situations to which one should

reconcile oneself — as belonging naturally to the situation in which teachers work.

Our interviewer had been trained in interview techniques developed in client-centered therapy and in behavior therapy, which helped mirroring what the teachers told her during the interviews and helped stimulating teachers to focus on their actual observations, rather than their opinions.

These were all issues that were considered in order to contribute to an atmosphere of cooperation and trust. We agree with Elbaz (1997, p. 81) that there is no formula to do this. “How exactly to give voice to personal stories is a matter that has to be figured out ‘from scratch’ each time”.

2.3 Selecting Teachers

Using a list of schools to which our students were sent for in-service training, we selected schools at random from which we would draw teachers for our interviews. We asked each school to provide us with a teacher of English and/or biology. We did not set any teacher-quality constraints — apart from the fact that these qualities are both hard to define and hard to assess, we believe that research should represent not only teachers’ successes but also their problems. As we did not want our information to be overshadowed by the typical problems of beginning teachers, we only used teachers who had more than 4 years experience. At the time of our interviews, the Dutch secondary school system consisted of four different streams on four different levels. During the first years, several streams had often been mixed. The classes on which our interviews were focused contained student compositions from at least two different ability levels. Our only other restriction was that the teachers taught a mixed ability class in which the second lowest stream was represented.

We compiled a list of 33 candidate teachers. Of these, two teachers refused to participate in our study; 31 teachers agreed to be interviewed. One teacher subsequently cancelled this appointment because of a lack of time. We ended up with 30 interviews. Because of the high response rate, we further limited our study to 25 teachers: we did this for simple reasons of resource management. We verified that the teachers we dropped from our study did not differ from the other interviews in ways that might influence the total picture.

In all, 25 teachers participated in our project: 9 teachers of biology and 16 of English. Our sample group contained 9 female and 16 male teachers from schools that attracted many rural students, schools in medium-sized cities and

schools with inner-city students. Teachers from 16 different schools were represented in our sample. The interviewer had never met the interviewed teachers before.

As appears from the process description above, our response rate of over 90% was high. We attribute this to the fact that the participating schools had an existing relationship with our institution and that they, rather than we, provided the initial contact. Apart from this, our approach of inviting teachers to share their practical insights and experiences was well received.

The interviews, took place in 1992, just before *the Basisvorming* was introduced.

2.3.1 *Preparing teachers for the interview.*

We explained the purpose of our study in the letter that was sent to each teacher. We initially asked each teacher to plan for a one hour interview. (In many cases, the teachers themselves took more time to tell their story). Along with the letter of confirmation, we sent each teacher a short questionnaire, requesting background information such as age, the number of students and number of classes they had, and the kind of follow-up training they had received after becoming a qualified teacher. We also asked for a school guide.

Before meeting the teachers personally, our institution sent each a notebook. They explained that since teacher knowledge tends to be tacit (Feiman-Nemser & Floden, 1986; Schön, 1983), it would be valuable if they used the notebook to record some events and reflect on them before the interviews took place.

Of our group of 25 teachers, 13 had made notes in advance. In one case, the teacher told us she had checked the information in the notebook with a fellow to be sure that she had rendered the way they worked at school correctly.

2.4 Reflections on the Interviews

During the interviews, some teachers appeared to be hesitant to express themselves along lines of thought other than socially accepted views. The interviewer would then say something like: "That's what they all say, but does it also match your own experience?" In this way, she tried to suggest that none of the teachers' opinions or experiences were considered to be incorrect. Sometimes, she asked them to comment on the experiences of other teachers.

If the conversation did not address all of our topics spontaneously, the interviewer introduced them in a common-sense kind of way. She asked whether

diversity played a role in how teachers dealt with any of these components. At the same time, she tried to avoid suggesting that diversity *should* play a role.

The conversations yielded beautiful stories and very useful material for our course on teaching diverse learners. They offered students and teacher trainers the possibility to relate their personal experience to that of the interviewed teacher. Some colleagues who only participated indirectly in our research commented positively on the warm atmosphere and the collegial tone of the conversations. Interestingly enough, among the body of stories, each of us — depending on our own personality or teaching style — had his or her favorite teacher. Thus, the criterion that a narrative, if it is a good narrative, constitutes an invitation to participate and can be read and lived vicariously by others seemed to be fulfilled (Connelly, 1978; Connelly & Clandinin, 1990; Guba & Lincoln 1989).

Some of the teachers interviewed came across as being very committed to teaching diverse learners and seemed very capable of managing (completely) heterogeneous classes. It seemed that all teachers had been open about their problems, at least to some extent. One teachers portrayed himself as bluntly cynical. He said that the diversity of students did not interest him at all. After the interviews, some of the teachers reacted by saying “they were not aware they knew that much”. We considered this as a sign that the conversation had raised their consciousness and had helped them to make some of their tacit knowledge more explicit.

The interview was ended once all the topics had been addressed and both parties had the feeling that everything had been said that needed to be said.

2.4.1 *Reliability and validity of the interviews.*

All conversations were recorded on audio tape and transcribed. We considered sending each teacher a transcript of their interview, but we realized that this could be interpreted as an implicit invitation for correction. We were concerned that this request would encourage the teachers to rationalize, or to expurgate spontaneous remarks, something that we would highly regret.

We only met the teachers one time. We did not require a second interview because, as explained in “Narrative Analysis as Pursued in This Study” on page 8, our goal was not to obtain a set of absolute truths but learn from the direct experiences of our teachers. During the interviews, many interesting points had been raised that were directly relevant to our goal. The body of interviews offered many different perspectives of both very efficient and uncertain

teachers, of old-fashioned and innovating teachers, of people who opposed heterogeneity and those who wholeheartedly supported it. Teachers had communicated with us in such a way that their stories could be read and lived vicariously (Connelly, 1978; Connelly & Clandinin, 1990; Guba & Lincoln 1989). The teachers had helped us to gain an understanding of teaching diverse learners via their perspectives.

Our analysis of the interviews entailed a process of validating the results with the literature. During this process, both the 'validity' and the 'reliability' of our data was tested in an attempt to put the teacher's perspectives into a coherent theoretical framework, derived from studies that had been conducted in quite different settings and had often used quite different research methods. If the teachers would have told nonsense, or would have presented an unrealistic view of reality, there would not have been any chance to find literature that would have corresponded with their perspectives.

2.5 Analysis of the Interviews

Initially, we only used the spoken version of the interviews as discussion material during the course on teaching diverse learners. Gradually, however, as we got familiar with the conversations, we surmised that patterns could be distinguished that would summarize the many hours of experience into more manageable material. Summarizing stories by formulating patterns, however, has a drawback: it depersonalizes the material. It removes the individual idiosyncrasies that make a story appealing. Such a story creates a unique opportunity for participation for *some* individuals. On the other hand, the formulation of patterns within a whole body of conversations increases its 'generative power' (Wardekker, 2000) or 'transferability' (Guba & Lincoln 1989) for a larger group of people. (Both concepts are introduced to avoid the concept of generalizability). We tried to reconcile the best of both worlds by formulating patterns on the one hand, and by retaining the excerpts from the original story in the language of the teacher on the other hand.

The analysis of the interviews broadly occurred in two steps. As explained earlier, we were not interested in simple descriptions of how teaching diverse learners occurred — for instance, 10% of the teachers evaluates in this way, 50% does it in that way etc. Rather, we were interested in the *points* that were made during the conversations that could possibly help gain insight in teaching diverse learners. This corresponds with the way in which Polkinghorne (1988)

defines the concept *significance*. This concept has been redefined by formal science to designate a technical, statistical definition. In general usage, however, the term significance points to the notion of meaningfulness or importance. This is retained in narrative analysis. 'Points' were elements of the interview that we found important because they offered insight. Finding ways in which such points could be placed in a coherent framework, appeared to be very difficult. We could, of course, have presented a list of some interesting perspectives of several teachers, but we found this too anecdotally. We searched for ways in which we — by looking at each interview in the same way — would find a pattern that offered an interesting view of our topic which could be placed in a theoretical framework.

The first step towards finding such patterns was the ordering of the material in mainly *a-priori* categories (and provisional subcategories within these categories). We also created some provisional a-posteriori categories. All these categories were placed on an 'analysis-form', which was completed for each interview. Our analysis form also contained more formal information concerning the organization of the school, the references of the teachers to organizational matters of the school, the number of students, etc. Apart from the component of the DA-model, we created a category 'differentiation model' to collect all the information on the teaching format being used: different kind of implementations of, for instance, whole class, or Basis-Repetition-Enrichment models.

In the category Evaluation, for instance, we collected all the points on evaluation by summarizing them and by referring to the page in the original document in which the complete fragment could be found. Because stories are multi-dimensional, fragments may have more than one essential point (the reader will notice that some fragments appear in more than one chapter). Often, categories are interrelated: the motivation for what is expressed in a particular category often lies in what is expressed in other categories. For this reason, some categories contained many references. Other categories, however, did not contain many references, which also gave an impression of how relevant this category was.

In completing the analysis forms for all interviews, we used both the spoken and the written version of the interview. It took us a year of full-time work to complete the analysis forms of all interviews. The completed forms made it possible to find certain excerpts quickly and gave a quick overview of each interview. Together, the completed forms provided an 'outline' map that made the

body of interviews accessible. The outline map made quick comparison of the interviews possible, gave an impression of which aspects in which category were possibly relevant, functioned as a memory aid etc.

The outline map showed, for instance, that although we had invited the teachers to elaborate on other kinds of diversity, differences in sex, culture, etc. were not topics about which significant patterns could be formulated. The category about school organization in itself was no significant pattern, but sometimes, the organizational aspects of the school were also mentioned in other categories. When relevant, we have used this information.

The outline map also showed that in some interviews, a few subcategories remained blank: information was missing. We collected all the subtopics about which we had no information. These topics, however, were not addressed in the main patterns that are presented in this study. They, thus, appeared to concern less important issues. If this had not been the case, we would have been forced to go back to the teacher to get extra information. But this did not appear to be necessary.

The creation of the outline map also offered us the opportunity to generate a detailed picture of the internal consistency of the interviews. As occurs in natural discourse, things become clear during the course of the conversation. Of course, the interviewer had also monitored the internal consistency during the interview. If something appeared to be inconsistent, she asked how one assertion was related to the other. Nevertheless, we found some inconsistencies in some interviews that the interviewer had not noticed during the interview. These inconsistencies concerned minor points, that were not relevant regarding the patterns presented in this study. The outline map was important in discovering the patterns that are described in the following chapters. The formulation of the patterns was the second step of our analysis.

2.5.1 *Formulating patterns.*

Formulating patterns is a matter of finding words to a certain phenomenon that occurs in as many stories as possible. In the words of Polkinghorne (1988, p. 177) "The analysis of narrative data does not follow an algorithmic outline, but moves between the original data and the emerging description of the pattern (the hermeneutic circle)".

We aimed at formulating broad patterns that concerned almost the complete body of interviews. The principle was, moreover, that if a pattern does not apply to a certain interview, it should at least be clarified why. In this way, we tried to

avoid that qualitative research consists of a number of incidental (but interesting) quotes.

Formulating patterns can be compared to focussing a camera lens: one should not get too close to the subject (otherwise, only a few details are captured), nor too far (otherwise, detail is lost; the summary becomes meaningless). Formulating a pattern that captures a large group is an inductive process in which the material itself, as well as concepts in the literature and the creativity of the researcher plays a role. It is a process of going back and forth between the material and the formulation and then checking whether it really applies to a large number of teachers (which we preferably specified). Formulating patterns is also a matter of focussing the camera lens on the right subjects — on significant subjects that offer new insights and are sufficiently addressed within each interview. This is a process of *hunting for significance*, something a researcher should not do in a statistical analysis, but is actually what our study was all about.

Finding significant patterns is not self-evident. We have tried out several ways of looking at the interviews that were not successful in the sense that we did not find enough excerpts (that were gathered by looking at the interviews from a certain angle) that could be placed into a coherent theoretical framework. We have, for instance, tried to look at the interviews via the concept of teacher roles and student roles. These unsuccessful analyses, however, yielded information that helped us find the way to the patterns presented in this study. Regularly, we deliberately conducted ‘intermediate analysis’, (for instance: what has been said on the topic ‘dragging along weak students’) as a step towards finding a larger pattern that could be placed in a theoretical context. The literature played a role in finding the right words and in useful perspectives. In formulating the patterns about the imitation tendency (see Chapter 5 and 6), René Girard’s mimetic theory (Girard, 1965, 1989, 1999) was essential. Without this theory, we would not have been able to clarify why that which seemed logical and normal in one class was so against the (unwritten) laws in the other class. Girard (and Festinger, 1954) offered a way of looking at the interviews that allowed us to put these apparently contradicting situations in a coherent theoretical framework. At other times, however, we developed interesting perspectives from the literature that resonated with many fragments from the interviews, but did not form a coherent picture in total. Finally, this process of ‘hunting for significance’ resulted in the patterns presented in this book.

We have preferably specified how many teachers belonged to a certain pattern. Specification by numbers, however, involves the assignment toward a

group that is either orange, or blue, or probably some other color. In reality, however, the narratives represent a rainbow of colors — and deciding who is orange and who is blue involves judgement. These judgements were sometimes based on information that — as a result of the character of the conversations — could not have been complete. It may be that double checking with the teacher would have led us to decide that he or she actually belonged in another group. We therefore believe that those numbers should not be taken all too seriously.

In order to keep the length of this dissertation within reasonable limits, we did not render all the remarks of teachers. Instead, the chapters below present only vivid examples of the perspectives. When our assertions seemed counterintuitive or were opposed to what is generally believed, however, we used more of the literal remarks of the teachers in order to illustrate that our assertions were really based on what they had told us.

The fragments from the interviews were placed in a theoretical framework. From this framework, three spectra were derived on which the quality of teacher could be rated. Two spectra are derived from points that were categorized in an *a priori* category and one was categorized in an *a posteriori* category (this was not an *a-posteriori* category from the analysis form; it was a newly developed category). After this analysis, some significant issues remained unaddressed. Some of them concerned patterns that did not concern the whole body of interviews, but only an identifiable group within the group. Other issues concerned vivid information about certain issues, for instance, how historical developments evidently had taken place. We found this information sufficiently relevant to be presented. To avoid a way of presentation in which only a bunch of details are piled up, we decided to look at most of these aspects from the perspective of existing views on dealing with diversity.

2.5.2 *Constructing a practice-based perspective.*

In order to be able to work with a certain theoretical framework in practice, a complex body of information need to be summarized in a few points. Such points may function as a tool. This implies that concepts are needed to capture the larger theoretical body — preferably those concepts that are already known. This again involves a quest for the right words, or an adequate way of representation.

It was via the concept 'paradox' (used by Palmer, 1998) that we felt the information presented in this dissertation converged into a more or less coherent perspective. That teaching diverse learners is paradoxical had become clear soon after the interviews had taken place. At the time, we called it 'the tension

between different and equal', but we could only describe this tension by presenting some incidental vignettes. Although the thought behind these vignettes seemed more than incidental, we could not demonstrate that this paradox concerned the practice of all teachers. René Girard's theory on mimesis (the imitation tendency, see Chapter 5 and 6) helped us look at the material in such a way that a more universal pattern became visible in the interviews. We read Palmer's work after the analysis concerning the imitation tendency had almost been finished. Palmer uses the concept of 'paradox' in helping teachers analyze their own teaching style. This concept was helpful for us to rate the quality of the way in which teachers dealt with the imitation tendency. While rereading the chapters on observation and evaluation (Chapters 4 and 5), we found that these chapters, too, described a paradox, albeit, at that time, this had not been put directly. We rewrote the material in such a way that the paradoxes became more explicit. In further refining our results, these three paradoxes form the summary of our newly constructed perspective.

2.6 Reflection on the Subjectivity of the Researcher

Conducting research via narrative analysis is highly grounded in the personal interpretation of the person who did the interviews, who interpreted the interviews, and who created a new perspective along with these interviews. As Wolcott (1997) put it: the researcher is the research instrument.

Concerning the status of personal interpretations, our field has undergone dramatic changes during the last decades. While personal interpretations were formerly considered to be subjective and thus antagonistic to a scientific approach, it is no longer exceptional that reports of — and reflections on — personal teaching experiences are accepted by prominent journals (see, for instance, Lampert, 1985). These developments are based on a redefinition of terms such as objectivity and subjectivity. As Barone (1992) put it:

"I will recommend that as educational inquirers we no longer talk about research texts as being objective or subjective but about texts that are more or less useful or, in varying degrees and ways, persuasive." (p. 26.)

In Chapter 3, we elaborate on this topic. The main conclusion of this discussion is that all kinds of research depend on human frameworks. Without personal interpretation, there is no research at all. In the words of Newell (1986):

"Observational checks are risked, not rescued, by neutrality and attempts to eliminate the contribution of the observer without eliminating the

observation are self-defeating. If the action of observing is refined to a point where it ceases to be discernible as the product of individual perceptiveness, it becomes detached from any actively alert agent; it ceases, in short, to be observation" (p. 28).

The acknowledgement that narrative analysis requires personal interpretation, however, does not imply that any kind of personal interpretation should be applauded. As will be further explained in Chapter 3, in order to gain objectivity, one needs to embrace the paradox between involvement and detachment. On the one hand, thus, the question is whether the author of this book was involved enough in the world of teachers: Was she sufficiently able to take the role of the teacher (Smaling, 1990)? Did she understand teaching sufficiently? Was she able to point towards issues that are significant for gaining insights in teaching diverse learners? On the other hand, the researcher should acknowledge the pole of detachment by relinquishing these insights, for this study is not about her, but about the perspectives of other teachers. The question, thus, is whether she was sufficiently able to relinquish her own practical experience and let the interviewed teachers speak. Concerning all these questions, the work presented here is not perfect, as is the case for all studies.

In presenting the results of our study, we have taken an open approach that displays the fundamental quotes upon which we based our conclusions. Rather than abstracting this information into unverifiable numbers, categories and graphs, we have opted to have the reader look over our shoulder and be an active participant in analyzing our results. Readers are invited to critically check whether the newly created perspectives presented in this study 'ring true', and if not, why. We assume a critical reader, one who constantly asks: Are the issues presented in such a way that they make sense for me? Are the offered perspectives credible? Do they help increase my understanding of teaching diverse learners? Do they correspond with my own teaching experience? We are trying to find a truth that "taps into our shared comprehension of a phenomenon. Each rendering provides insights, expands understanding, and pushes credibility, but no one settles it once and for all" (Doyle, 1997).

2.7 The Concepts of Theory and Practice

This study refers to a 'gap between theory and practice' and examines whether this gap exists regarding teaching diverse learners. The expression 'gap between theory and practice' also occurs in the literature (Kessels & Korthagen, p. 18).

Other authors refer to it by using different descriptions. Eisner (1988, p. 18), for instance, writes: "If we get involved in school work at a practical level we come to realize how empty a lot of the theoretical discussion is compared to the practice". Theory and practice are often presented as if they oppose each other.

Such an antithesis, however, might suggest that there is practice without theory, as if human actions can be separated from what goes on in their mind. Practice is always theory-loaded. Some of this theory is tacit in the sense that people are not aware of using this theory. Not all of these theories are scientific theories, although some are. Nevertheless, actions are guided by ideas, both unconscious and common sense ideas, and (in modern cultures) scientific ideas. Doing research, moreover, is a practice in itself. Theory and practice cannot be separated. A dualism between thought and action is not appropriate.

Starting from the inseparability of thought and action, Doyle (1997) views teaching as a 'theoretical process'. "If teaching is a theoretical process, then teachers need coherent frameworks that help explain how things work rather than direct prescriptions for how they are to behave" (p. 97). The goal of the search to understand teaching, thus, is *understanding* in the form of provisional theoretical models that seem to account, at least in a limited fashion, for how things work. Such theoretical models can help one see more than one did before (see also Verloop, 1989). They may help inform teacher's analysis and interpretation of local events. It is this interpretation of the concept of theory that we favor most.

Nevertheless, the concept of theory is also used in different ways. Verloop & Lowijck (2003, p. 7) write that theoretical knowledge is necessary for teachers. Under this knowledge they include 'knowledge about the factors of education'. Here, the word 'theory' is not related to explanation, but to knowledge about education; the expression 'educational theory' is used in the sense of 'educational literature'.

In this dissertation, as is the case in the academic literature on education, the word 'theory' is used in three different ways — and the reader will be able to understand from context which interpretation is meant: (1) 'theory' refers to the literature on education (including the literature that only offers prescriptions); (2) it refers to a tool that may help explore events and guides actions, and (3) when speaking about the gap between theory and practice, we refer to the discrepancy between the perspectives that are generated by working in education as a teacher and the perspectives that are generated by doing research on educa-

Chapter 2
Method of Inquiry

tion. By 'practice', we refer to a classroom situation in which teachers teach children or youngsters.

The methodology described in this chapter was used to distill the ideas that guide the actions of practitioners in order to create a new perspective that would help other practitioners guide their teaching of diverse learners.

3

Objective Observation of Diverse Learners

Teaching diverse learners starts by the observation of what is 'diverse'. This chapter concentrates on the question how teachers who are engaged in an interpersonal relationship can be objective. To answer this question, we analyze the concept of objectivity. Current epistemological insights show that there is a human element in all observations, including the academic ones. It is not the elimination of the personal element that helps gaining objectivity but the refinement of the personal element. Starting from this view — which does not only apply to the observation of teachers but also to academic study in general — we point out that objective observations of diverse learners implies embracing the paradox between involvement and detachment: to gain objectivity, on the one hand teachers need to have a thorough understanding of education and students — they need to be 'connoisseurs' — while on the other hand they should relinquish this knowledge in order to remain open to new observations.

3.1 Introduction¹

Teaching diverse learners starts with the observation of what is 'diverse'. How does this occur? How should this occur? Should a teacher use scientific instruments to ensure objectivity? If 'getting to know students' is an interpersonal enterprise, how can such an enterprise be objective? In this chapter, the perspectives of teachers on the observation of students are described and compared with the literature on how observation should occur. In analyzing the concept of objectivity and criticizing the traditional view of it, a theory on objectivity (based on cur-

1. This chapter is an adaptation of Bulterman-Bos, J.A., Terwel, J. Verloop, N. & Wardekker, W. (2003). Observation in Teaching: Toward a Practice of Objectivity. *Teachers College Record* 104(6), 1069-1100.

rent epistemological insights) is developed that shows how an interpersonal enterprise can yet be objective.

3.2 Literature: Observation

3.2.1 *Concepts and definitions.*

This chapter focuses on the informal aspects of classroom assessment, namely, those aspects that are embedded in instructional events. Cizek (1999) distinguished informal aspects of classroom assessment from classroom assessment that is dissociated from instruction for the purpose of evaluation. In the older literature, this kind of informal assessment was called formative evaluation, as distinguished from summative evaluation (Scriven, 1967; Bloom et al., 1971). The information-gathering process we focused on takes place during the learning process and is necessary for teachers to understand their pupils, monitor their instruction, and establish a viable classroom culture. According to Airasian, much of this information gathering is done by means of informal observation of pupil behavior and performance (Airasian, 1991, 1994). Salmon-Cox (1980) also stressed the importance of observation. She concluded that teachers, when talking about how they assess their students, most frequently mention observation.

The types of observational activities examined in the present study start at the beginning of each year, when teachers are faced with the task of getting to know a new group of students with disparate interests, abilities, backgrounds, school experiences, and affects. The focus is on more student characteristics than achievement alone (Airasian, 1991; Shavelson & Stern, 1981). Teachers arrive at their judgements by instinct, intuition, and practical knowledge. Therefore, Airasian, referring to this process of information gathering, uses the expression "sizing up" students.

3.2.2 *The theory on teacher expectations and it's reviews.*

Concerning the quality of teachers' observations, researchers are generally worried. Stiggins, Conklin, & Bridgeford (1986) indicate the complexity of the task. Terwel (1993) is aware that teachers who use observation might size up students incorrectly. Verloop and Zwarts (1987) and Verloop and Van der Schoot (1995), while acknowledging that informal assessments such as observations are an essential part of teaching, are afraid that teachers are not sufficiently aware of how their observations are distorted by their initial impressions.

Concerns about the quality of observations have been colored by the bulk of research on teacher expectations. This theory states that teachers' expectations of students are not based on adequate observations but on prejudices that teachers impose on students, which causes a self-fulfilling prophecy (this term was first introduced by Merton, 1957). In the study *Pygmalion in the Classroom*, it was suggested that expectations for individual pupils influenced their actual achievement (Rosenthal & Jacobson, 1968). This notion has been combined with ideas on the educational reproduction of social inequality (Hausser, 1980; Jungbluth 1984; Jungbluth 2003a; Rist, 1970; Rist, 2000). Generally, it is believed that low-expectancy children, typically thought to be children of minority groups or of low social status, are being harmed by teachers acting on their low expectations of these children. Much of the teacher expectations literature concludes that teachers use their own value systems to select both favored and unfavored students and, thus, are responsible for wide variation in achievement. Some authors even stated that student intelligence is affected by teacher expectations (Marburger, 1963; Rosenthal & Jacobson, 1968). In the *Scientific American* (1968), Rosenthal and Jacobson went as far as to question the wisdom of special programs to overcome the educational handicaps of disadvantaged children, arguing that such programs rested on the assumption that disadvantaged children had some problem or deficit, which these authors believed to be misguided.

The notion of the self-fulfilling prophecy emerged as the common coin of educational research. According to Wineburg (1987), few ideas have influenced educational research and practice as much as this notion. Meyer estimated in 1985 that since the original study, there have been between 300 and 400 published reports related to the self-fulfilling prophecy in education. The stream of publications still continues (Jungbluth, 2003a).

Less noticed, however, are the reviews of this research. Prominent authors such as Richard Snow (1969), Robert Thorndike (1968), and N.L. Gage (1966, 1971) questioned *Pygmalion* after publication, criticizing the set-up of the study and demonstrating that it lacked empirical evidence. Nevertheless, the *Pygmalion* claims were hailed by the popular media (such as *The New York Times*). Wineburg (1987) depicts how, in the course of time, reports of *Pygmalion* in the press came to stand for whatever people wanted, regardless of the original research questions asked.

Brophy and Good (1970) were among the first to study naturally occurring expectations. In 1985, Dusek, Hall & Meyer attempted to consolidate and integrate theoretical and empirical research on teacher expectations. They concluded

that many of the studies are correlational studies, whose weakness lies in the uncertainty of causal inferences. Other than many studies had suggested, they stated that many “teacher expectations effects” were best understood as student effects on teachers, rather than the other way round. If teacher expectations appear to be related to student outcomes, “it is inappropriate to conclude that the teacher behavior mediated the students’ performance. Obviously, student behavior could well have mediated teacher behaviors” (Dusek et al. 1985; Meyer, 1985 p. 355; Mitman and Snow, 1985). The authors stressed that “most differential teacher expectations are accurate and reality based, and most differential teacher interaction with students represents either appropriate, proactive response to differential student need, or at least understandable reactive response to differential student behavior.” These conclusions are associated with naturalistic studies, dealing with real teachers and real information about real students. Yet, the potential for teachers’ expectations to function as self-fulfilling prophecies always exists. Brophy (1985) assumes that only 5% of the variance in achievement can be accounted for in terms of the self-fulfilling prophecy².

The literature, thus, is not unequivocal on the quality of teacher observation. On the one hand, a highly visible group of educational experts believes that a great deal of the differences in performance are caused by false teacher expectation. On the other hand, a less visible group of researchers has challenged the research on teacher expectations profoundly. They did not conclude that teacher observations were perfect but showed that adequate teacher expectations should not be considered the key to educational equality.

3.2.3 *Quality observations?*

Very few authors concentrated on how observation should occur. Good and Brophy (1978), in their book *Looking in Classrooms* gave practical instructions about how teachers should conduct observational activities. They explain that what “we think we see is not congruent with reality. (...) Teachers on occasion react not to what they physically hear but to their *interpretation* of what the student said. Their past experiences with a student often influence their interpretation of what the student seems to be saying. This is not to suggest that teachers should not in-

2. In a teacher’s union magazine Jungbluth (2003b) recently asserted that at least half of differences in student performance can be accounted for in terms of inadequate teacher expectations. In another publication, however, he also admits that his results could be interpreted in such a way that they demonstrate the adequacy of teacher expectations (see Jungbluth 2003a).

interpret student comments, but to argue that they should be *aware* when they do so. (...) Expectations should be appropriate. Teachers shouldn't react to a label (low achiever, low potential, slow learner) but to the student as he is" (p 88). To help teachers gain objectivity, the authors present various observation instruments that are intended to be used by teachers and are similar to the instruments of researchers. Wajnrub (1992) and De Corte (1981) also recommended the use of observation instruments to achieve objectivity.

Other authors such as Stiggins et al. (1986) and Airasian (1991), however, stressed that researchers must understand that the demands of the classroom are different from what is relevant in research. They complained about the research community's lack of attention to informal aspects of classroom assessment. Airasian (1991) found that the textbooks used in teacher education and measurement courses overwhelmingly concentrate on formal types of classroom measurement, thus relying upon instruments. But Airasian stated that there is much more to educational measurement than formal number-producing techniques. "Teachers do not deal with problems and decisions in general or in the abstract; they deal with Marie, who is different from Paul, who is different from Jerome and who has a problem that needs attention right now" (p.14).

Airasian stressed the need for examining informal aspects of classroom observations. As teachers are often unaware of the extent to which they rely upon informal, unsystematic assessment for decision-making, he believed, more information on "sizing up" and on instructional assessment should be included in courses and texts. The need for valid and reliable information should be stressed in these courses, but in a common-sense, non-statistical manner.

Stiggins et al. and Airasian, thus, realize that in practical situations, instruments for formal observation do not suffice. The authors do not specify *what* teachers should learn to improve their informal observations, nor do the authors clarify what a common-sense way of framing validity and reliability means.

3.2.4 Research questions.

In this chapter, the perspectives of teachers on the observation of students are described and compared with the literature. As we have shown, most literature recommends the use of observation instruments. These instruments, however, are seldom used in practice. We analyze whether the use of instruments is required to gain objectivity, which implies that we examine the question what objectivity is. Starting from recent epistemological insights, we define the concepts of validity and reliability in a non-statistical way.

3.3 Dutch Background

The classes of our teachers have an average number of 25 students, with a variation from 18 to 31 students. English and Biology are taught three and two hours respectively a week, which means that teachers with a full-time Biology job of 28 hours generally meet with 14 classes. Most lessons consist of both a centralized part (in which the teachers leads a discussion, gives instruction), as well as a decentralized part, in which students work in small groups or in pairs. Although both teaching styles generally occur in most lessons, some teachers tend to rely more on the decentralized style, while others prefer a centralized style. Which teaching style occurs most also depends on the subject and the material available.

3.4 Results: Teacher Perspectives on Observation

When listening to the stories of teachers, two things were striking: (1) some teachers seemed to be actively engaged in intentionally and consciously acquiring information about how students learned, who they were etc., while other teachers did not seem to get round to observation and only picked up information incidentally. Moreover, (2) some teachers mentioned that often students took the initiative to draw the teacher's attention and actively supply information about themselves. This motivated us to use two dimensions in which to order the material: one referring to the mode of teacher observation (active/passive) and one referring to the student stimulus for that observation (active/passive). This resulted in three patterns describing the process of short-term observation:

- 1) triggered observation (the teacher is passive, but is drawn to something by the student),
- 2) incidental observation (both teacher and student are passive), and
- 3) intentional observation (the teacher is active; the student is passive or active).

A fourth pattern, long-term observation, covers those fragments that showed that prior experience with other students plays a role in identifying differences between current students. The interviews of all teachers contained information that fitted in at least one of the first three categories. Although not all teachers gave explicit information about the fourth category, it seems obvious that they all have developed a framework that is used to interpret present situations.

3.4.1 *Triggered observation.*

In this pattern, a student or a group of students actively demands the teachers' attention. Given a choice, the teacher would have disregarded the student (or a group), but under triggered observation the teacher is compelled by the student to take notice. The teacher's mode is passive: he or she is engaged in other things. The student — or a group of students — draw(s) his or her attention.

Mr. Smit: [3.1]

A few bright students can usually start their assignments after a single standard instruction, while the rest require a second explanation—but even after this second round, some still can't follow the material and say (to my irritation): "I don't understand this." As a result, I have to work like an octopus: some of the group is finished, while others have yet to start! This makes correcting assignments difficult and requires a great deal of energy.

The disturbance of the teacher's mind-set evokes (negative) emotions. Mr. Smit uses the word "irritation" about the fact that some students have not gotten the material. In a similar context, other teachers, such as Mr. Veling, use the word "tiring." Mr. Siebelink says that he is still learning that some of his students (who would have been placed in the lowest ability track if a moderate mixed-ability policy had not been present) have lower levels of ability than he had come to expect. Here also, external signals (e.g., the student's attitude) have reminded him of the need to pay attention to things that otherwise would have been disregarded. Apparently the students force him to revise his perspective of them.

Striking in these examples is, that having high expectations (thus, believing that all students are high achievers) would have made the teachers' life much easier, if some students had not triggered the observation that they are no high achievers at all.

3.4.2 *Incidental observation.*

In this pattern, information about student characteristics comes naturally from daily classroom interaction. As is the case with triggered observation, the information is gathered while other activities are going on, such as correcting homework, instruction, and doing assignments in class. Unlike the first pattern, this type of observation is not provoked by students. The teacher is not actively engaged in gathering information either. Nevertheless, information is exchanged. This type of observation is unavoidable; even teachers who do not dwell on differences come across this pattern.

Mr. De Hond: [3.2]

The extremes are the easiest to place: someone who stands out because he is very good, or someone who is obviously very weak. You know right away that someone is bright if he always gives the right answers in class. You give someone a passage to read, for example, and it just doesn't work. In the group I just had was someone like this, a real smart cookie. He simply radiates this in everything he does. I don't even have to look at his grades, I just have to listen to his answers. If I ask a question, he immediately raises his hand and gives the correct answer. In this way, you build an impression. You run into this automatically.

The word 'automatically' is a key word in this pattern. During regular activities, teachers unintentionally observe a great deal. The content being addressed can be more or less 'immediate' to observe. If students are reading English (as Mr. De Hond mentions) it immediately becomes clear whether they pronounce the words correctly. During biology students learn how to use certain concepts; the extent to which they do this correctly does not appear so easily. This accounts for the fact that teachers of English more often say they 'automatically' obtain useful information on how students are acquiring the subjects than teachers of biology do.

Various teachers indicated that they do not remember all the information they observe.

3.4.3 *Intentional observation.*

In this pattern, the teacher is actively engaged in information gathering. Thus, he or she is focussed on informal assessment. This either takes place during a moment specifically planned for informal assessment or during instruction or exercise. Two teachers described how they systematically give turns.

Ms. Vogel: [3.3]

I give everybody a turn in each lesson. When we go over their homework, everyone gives an answer, so you get a good picture of who knows the material and who doesn't.

Mr. Visser: [3.4]

I want to hear from everyone at least once a week, if possible, either as a part of reading aloud or via direct questioning.

In this way, these teachers make sure they do not skip individual students and they pay attention to every individual at least one time per lesson or week. How-

ever, this does not mean they actually observe systematically, since students do not take turns for the same tasks.

Ms. Koning described how she checks whether her instruction has come across as intended.

Ms. Koning: [3.5]

After I've explained something, I always try to get some feedback from the group. For example, I'll ask: "What is the function of the possessive pronoun?" Then I try to get the answer. For the non-native kids in class, Dutch is a foreign language. Within this group especially, you first have to see if they know what a possessive pronoun is. Also, when they study vocabulary words, they may encounter Dutch words that they don't run across in their daily environment. In these cases, I'd say: "The Dutch word 'overwerk' is 'overtime' in English. Can you tell me what 'overtime' is, and can you use it in a sentence? When do you have to work overtime? Does your father ever have to work overtime?" It is only after they understand the concept that they can use the word effectively in English.

Various teachers gather information by discussing students' notebooks while other students work independently. Ms. Wolf observes in a notebook a wrong conclusion concerning the concept of 'threshold value'.

Ms. Wolf: [3.6]

As a teacher, you then have to see what's gone wrong. "Try to explain what the threshold value is!," but the student has no idea. You then grab the textbook and say: "Do you understand what this says?" We go through the examples. Then I ask them to come up with other examples. I try to relate that back to the experiment, at which point a light occasionally goes on.

Some teachers praised the teaching style in which students work individually or in small groups because it allows the teacher, who walks around, to get to know their students better. To observe intentionally, however, does not guarantee that the information obtained makes sense to the teacher. Mrs. Akkermans said that she often reflects on her observations later on at home.

Mrs. Akkermans [3.7]

I always wonder what it is that goes on in the head of such a child. Sometimes, at home while washing the dishes, I think: darned, what is it with Marco? Why can't he get it?

Teachers rarely mention keeping record of their observations. Mrs. Tulp is an exception.

Mrs. Tulp: [3.8]

Along with the usual grades, I also make a note of how the homework is done, whether they do it regularly. I note whether someone does sloppy work, or is insecure, or whether someone is deaf or can't see well. For example, there are kids who don't wear their glasses and sit in the back of class. I know that they can't see what I've put up on the overhead projector. If I didn't jot a quick note on this, I'd forget it.

Along with grades, which are written down, most teachers make mental notes about their observations of individual students. Some teachers add that they would not be able to remember this information if they were not part-timers. We analyzed the stories on whether the teachers believed they knew their students well and concluded that full-timers often indicate they don't know their students well (sometimes, they don't even know their names), while part-timers generally were more positive on this.

3.4.4 Long-term observations.

During their careers, teachers observe how students behave and how they react to the material that is presented to them. This information, gathered in the past, is significant for assessing differences in the current situation. This occurs, for instance, when teachers work with the same textbook over a period of time. Such teachers have a historical reference on how students from similar groups reacted to the textbook; this enables them to anticipate the way in which their current students may react. In other words, they have developed pedagogical content knowledge.

Mr. Langen: [3.9]

When you hand out assignments, you know ahead of time that certain kids will have problems. In order to know this, you have to use the same textbook several years in a row, so that you know where the problems are. This is the third or fourth year that I've used this book, so I've gotten pretty familiar with it. When I pass out an assignment, I know beforehand which kids will have trouble, so I make sure that I walk past them as soon as possible. Doing so lets you keep an eye on them.

Also on a larger scale, images from the past alert teachers to situations in the present. Discovering differences is a matter of "experience," according to Ms. Van Dijk. Mr. Messen asserts that one develops a "sense," unlike student teachers, who still have to develop observational skills.

Mr. Messen: [3.10]

The group that I'm mentor for—those are great kids. I know them very well: I got to know them in their first year when I was their study coordinator for about five hours per week. As a result, you know all their comings and goings, and interacting with them is not a problem. I also have a second group where things are not so simple, since this our first year. So you have to play it by ear. But you develop an extra sense. I regularly supervise student teachers, and it is clear that at the beginning of their careers, they have no feeling for this sort of thing. Once you have done it a number of years, though... it seems that you just build up a sixth sense for that sort of thing.

This quote reflects Schön's theory (1983) describing that an experienced practitioner builds up a repertoire of examples, images, understandings, and actions which help him or her give meaning to new situations. Often, images of student behavior in the past do not match current situations precisely, but reflection helps adjust the image to make sense of them.

3.4.5 *Conclusions about the perspectives of teachers on observation.*

Our work allowed us to identify seven characteristics of the process of observation:

- 1) *Teachers differ in the extent to which they are actively engaged in observation.* Some teachers mainly observe passively; others 'need' students who draw their attention.
- 2) *The process is interpersonal.* Rather than viewing observation as a means of measurement in which an object (a student characteristic such as achievement or motivation) is measured by means of a standardized instrument, two subjects are involved: Teachers have to get to know their students. This process of observation helps build relationships. As Stiggins (1991) puts it: "Assessment in classrooms is virtually never a remote, scientific, objective laboratory act. Rather, it is virtually always an interpersonal act with personal antecedents and personal consequences."
- 3) *Teachers who are observing are playing two roles at the same time.* Because observation is embedded in the action of teaching, it is inevitable that observation also happens passively or unconsciously. But even if observation is intentional, it is the observer who at the same time initiates and controls the flow of activities (Shulman 1980) to be observed. If no activities are taking place, no information about the learning process can be observed. Teachers thus influence their observations by the way in which

they control the activities to be observed. Therefore, it is more accurate to talk about observation in teaching rather than observation.

- 4) *Observation in teaching is a process of mutual influence.* Students also contribute actively to what can be observed. Under triggered observation, they compel teachers to take notice. By interacting with students, teachers find out whether their frames of reference are adequate. Adaptation of frames is part of a negotiation process with students, which is required to avoid miscommunication. This process evokes a range of emotions, for instance, stress and irritation or bonding.
- 5) *How results should be attributed is uncertain.* Because observation takes place under the influence of both parties, it is not clear who should be held responsible for what is happening. What teachers observe in their classrooms partly mirrors their own influence. For instance, if a student is not motivated, teachers can never be sure that they have motivated their students well enough; if students do not achieve enough, teachers can never be sure they have instructed their students well enough. The process of observation in teaching thus reflects the intrinsic uncertainties of teaching (McDonald, 1992).
- 6) *Information obtained by observation is never complete.* Though a lot of raw data is collected both actively and passively, and may seem to form a coherent picture, new fragments may continually chance the existing picture. New bits and pieces of information are continually captured and old bits are lost (forgotten) or replaced. This process continues as long as the teacher-student interaction lasts. Reflection is needed to put the fragments of information together into a more or less meaningful picture of an individual student. The mental room available for this process also depends on the number of students of a teacher has.
- 7) *Images of former students play a role in discovering differences between current students.* They enable teachers to recognize certain "types" of students more effectively. Since images from the past will not match precisely those of the present, reflection is needed.

3.5 Making Sense of the Perspectives of Teachers

The seven points describing the perspectives of teachers show that the observations of teachers are not objective in the sense that personal elements are reduced. Observation is interpersonal. Teachers indeed react on their *interpretation* of what

the student says or does and their past experiences with a student do influence their interpretations. Observation is not based on students 'as they are'. Instruments, moreover, are not used, because they require the role of the observer and the teacher to be split. A separate observer is not available. Therefore, instruments are not appropriate for observation-in-teaching.

Does this imply that teachers are doomed to produce unreliable observations? Is the interpersonal character of observation by definition a flaw or could it also be a merit? Does the historical reference of teachers distort present observations as Good and Brophy (1978) suggested, or is the use of a historical reference a characteristic of an experienced practitioner, as Schön (1983) suggested? To explore these questions, we examine the concept of objectivity.

3.5.1 *A traditional view of objectivity.*

Newell (1986) distinguished two views of objectivity. The first interpretation is central to the concept of objectivity as it is most commonly used in educational theory; therefore, we refer to it as the traditional view. Objectivity, in this view, corresponds with the reducing of the role of personal judgements. Because beliefs about an objective world must hold independent of the observer, observations should be dissociated from any connection with the opinions and (prior) experiences of persons. The aim of research is knowledge (episteme), not beliefs (doxa). According to this view, subjectivity is in the mind; what is objective is outside the mind. Scientific methods, consisting of procedures that need to be applied in order to attain an objective understanding of events and objects, are used to minimize personal judgement.

Current epistemology, however, criticizes this view of objectivity profoundly. It argues that human observation is always framework-dependent (Newell, 1986, Eisner, 1992). Perception of the world is perception influenced by skill, point of view, focus, language, and framework. As Eisner (1992, p. 12) puts it: 'Percepts without frameworks are empty and frameworks without percepts are blind. An empty mind sees nothing.'

Nevertheless, it is perfectly possible to create procedures (for instance, research instruments) that eliminate individual judgement. One of the most common examples of a method excluding individual judgement is used in an achievement test: once the multiple-choice test has been constructed, it can be scored objectively, for instance, by an optical scanner. Yet, consensus achieved through procedural objectivity does not demonstrate that a pure view of the outer world has been attained. It actually demonstrates that people can agree:

they agree on the way in which the procedures should be designed and applied, which reveals their common frameworks. In essence, such procedures do not really eliminate human judgement, but draw upon the assumption that everybody judges in the same way (Newell, 1986, Eisner, 1992).

Research instruments (for classroom observation) are based on procedural objectivity. If, for instance, there are indications that a certain teacher favors boys over girls, one can count how many turns the teacher gives to boys and how many to girls. Owing to a common framework—we all know how to count; we also agree about what boys and girls are—this observational procedure works well. If more complex events are to be observed, however, common frameworks could well be absent. In such situations the investigators may develop procedures defining how judgement has to take place. Such procedures prescribe in what categories observers should classify their findings. But these procedures do not result in an indisputable look at the event; they favor a particular way of looking at the phenomenon, while overlooking other aspects. Thus, when observing complex situations, there is a dilemma: either complexity is acknowledged and personal judgement and disagreement are accepted, or complexity is not acknowledged and a strict way of looking at the phenomenon is prescribed, forcing everybody to judge in the same way. In neither of these cases, however, are we able to know the world in its, as Eisner calls it, “pristine state,” a state in which our frameworks are eliminated. Procedures themselves are a way of framing the world.

The bottom line is not that procedures in general are odious or suspect; it is that the presupposition that we can eliminate human judgement is naive. Observation, including scientific observation, is loaded with human frameworks.

3.5.2 *A transactional view of objectivity.*

Even within these human constraints, Newell (1986) considers the concept of objectivity still useful. He believes that humans can use reason to judge the human theories in order to go beyond the idiosyncrasies of different views and to distinguish between bad views and better views. In this view, to which we will refer as the transactional view, although knowledge that is independent of human frameworks is regarded as an unattainable commodity, objective judgements are contrasted with prejudiced, biased, or dogmatic judgements. Objectivity goes together with respect for certain norms, including standards of evidence and argument-related ways of resolving disputes (p.18). One can be objective in one’s own view by acting with reasonableness and impartiality in one’s own view. (p.

32). Objectivity, thus, is associated with impartiality, detachment, disinterestedness, and a willingness to submit to standards of evidence. The distinctive characteristic of this view is that objectivity attaches to *persons* through their actions. What makes a judgement objective is not particular to outer objects, but is some particular *practice of people* (p. 17). The transactional view tries to identify the human actions which ensure objectiveness (p.23).

Objectivity, thus, becomes a product of a proper method. Nevertheless, Newell continues, linking objectivity with the practice of objective methodology has its dangers: the methodology traditionally prescribed is geared to preventing the intrusion of a subject-related bias with an “overreaching zeal”. Newell explains why this assumption is, at best, a liability: removing the interpretive categories of observers is removing their capacity to classify and describe what they observe. Observational checks are risked, not rescued, by neutrality and attempts to eliminate the contribution of the observer without eliminating the observation are self-defeating. If the action of observing is refined to a point where it ceases to be discernible as the product of individual perceptiveness, it becomes detached from any actively alert agent; it ceases, in short, to be observation (p. 28).

Thus, objectivity is not to be contrasted with that trivializing sense of subjectivity in which judgements are “subjective” simply because they are judgements or expressions of the point of view of some individual agent. What matters for objectivity is not whether a person’s opinions steer his judgements, but whether the opinions embodied in her or his judgements can survive the scrutiny of fair comment (p. 31). In this view, objectivity is something a person can *learn*: for example, by trying to free him- or herself from the bias of his beliefs. In a loose sense, Newell remarks, the objective person is the rational person, but the sense is loose because rationality’s scope is indeterminate in our ways of speaking and needs the qualification that the rational person respects the reasonable criticism and the reasonable demands of others. He or she may or may not be the self-interested man. The rational pursuit of one’s interest can clash with objectiveness by disregarding unwelcome evidence and justified opposition; equally, objectivity is not surrendered by holding on to one’s interests on the strength of a reasonable case. Strong self-regard threatens objectivity— not through self-interest, but by overriding claims to an impartial weighing-up (p. 36). Objectivity is therefore linked with personal action and responsibility. The transactional view sees objectivity as normative, as a virtue.

This brings objectivity back to a human scale. Who decides what is fair comment and reasonable criticism? No one other than human beings. They will judge opinions as good, not by a correspondence with reality (we cannot determine this), but because certain theories that are part of our frameworks make sense and are supported by reason; as Eisner (1992), following Toulmin (1982), puts it “because they are sound doxa instead of shaky ones.”

3.6 A Practice-Based Perspective on Quality Observations

The traditional view of objectivity is presently considered to be obsolete. Therefore, we start from the transactional view to develop a practice based perspective on quality observations.

3.6.1 *Reframing quality observations.*

A transactional view shows that quality observations cannot be discussed in terms of correspondence with reality. Eliminating individual judgement yields a different picture, though not necessarily a better one. A way of reacting to a student “as he or she is,” as Good and Brophy suggested, simply does not exist. People will never be able to go beyond their own view of somebody else; at the same time, however, a transactional approach shows that all possible views of somebody else are not equally valuable.

When viewing observation-in-teaching from a transactional perspective, some characteristics of quality observation can be inferred.

- 1) We have shown that the observations of students are interpersonal. According to a transactional view, this is not a threat to objectivity in and of itself. It asks whether the observer is disposed to standing back and considering the state of his or her feelings and interpretations.
- 2) We indicated that teachers negotiate meaning while interacting with students who understand the world differently. The transactional view on objectivity stresses that actively alert agents, open to discovery, are needed. In spite of their different frameworks, human beings can learn to understand each other (Procee, 1991), but this requires involvement.
- 3) Observations are always theory-loaded. A transactional approach asks whether the theories being used make sense. The more teachers understand about students, learning, classes, the better their observations will be. Sound pedagogical (content) knowledge improves the quality of observations. An objective teacher, thus, is not somebody who eliminates

values, personal commitment, and prior knowledge, but one who tries to sophisticate them.

- 4) The previous point indicates that a broad experience with students — having developed practical connoisseurship (Eisner, 1991) — improves the observational skills of teachers. Equally important is the insight that this baggage may be insufficient for ‘sizing up’ a new student accurately. Strong self-regard may threaten objectivity.

These points bring us to the interesting paradox that knowing a great deal about education and about students is essential, but that, at the same time, it is useful to relinquish this knowledge in order to remain open to new observations. Quality observations require the embracing of the *paradox between involvement and detachment*. On the one hand, teachers need to be involved with students and rely on their previous knowledge about students. On the other hand, teachers need to detach themselves from this involvement to clarify the nature of this involvement and check whether their previous assumptions (the theories they have developed so far) correspond with what they see. The issue, thus, is not *whether* teachers interpret their observations by relying on their own frameworks and by using past experiences, but *how* they do this.

3.6.2 Reframing the reliability and the validity of observation.

Our reframing of concepts such as reliability and validity occurs along the same line as our reframing of quality observations. In terms of the ‘reliability of teacher observation,’ we refer to the extent to which people are open to observation and are aware of what is happening. It refers to the teacher’s mindfulness, which is an aspect of the teacher’s attitude (or personality). The reliability of teacher observation, however, is also influenced by the situation. Having too many students jeopardizes reliable observations. In stating that no teacher should have direct responsibility for more than eighty students, Sizer (1992), without using measurement jargon, indicated that the reliability of observation is related to the organization of the school.

The concept of validity refers to the quality of the observational frames that help people interpret the observation. Although these two warrants of quality can be separated in a conceptual way, they are inseparable in a practical way. Eisner (1992, p. 12) remarked that percepts without frameworks are empty, and frameworks without percepts are blind. Or to paraphrase Pamela Moss (1994): there is no reliability without validity. Numerous encounters with students and years of experience by teachers who only register what they see (but do not

understand it), do not necessarily lead to quality observations; understanding various students without being open to what is actually happening with present students, likewise does not lead to quality observations.

3.6.3 *The decisive role of social practice.*

We talked about ‘the quality’ of one’s observational frames. But how it is decided that a practitioner’s frameworks have ‘quality’? Practitioners find out whether their observational frameworks make sense because, as Schön (1983) puts it, ‘the situation talks back.’ In the words of Newell: the social practice is decisive.

Mr. Langen gave a clear example of a situation that ‘talked back’. As a result of the discussions about the value of heterogeneous grouping among experts and the government supporting these notions, completely heterogeneous groups were introduced at his school.

Mr. Langen: [3.11]

We don't like to pigeon-hole our students too quickly. Thus, when the Department of Education stimulated heterogeneous classes, we were among the first to participate. The idea was: in heterogeneous classes, your past performance wouldn't really matter. That was a historic blunder. In principle, it means that you don't acknowledge the facts of a heterogeneous pupil population. In our group, we instead denied the presence of heterogeneity. Simply put, that's what happened: simply ignore the differences, and pretend they don't exist. Naturally, that doesn't work.

Because the situation “talks back” (as Schön, 1983, put it), practitioners learn to distinguish adequate from inadequate assumptions. In this way, they may develop common frameworks. A social practice, thus, is necessary to decide whether theoretical ideas make sense. This underlines the notion that sound theoretical ideas can only be developed in practice. The transactional view points out that we need to bring theory and practice closer together than is currently the case. A distant position, as recommended by the traditional view of objectivity, is no asset at all. Experts — people who want to be able to distinguish between sound and shaky ideas — should operate as close as possible to their objects of study.

3.6.4 *Conclusion: rating the quality of teacher observations.*

Our analysis and the examples of teachers show that the observations of teachers are not equally valuable. The highest end of the spectrum describes teachers who face the paradox between involvement and detachment. They are actively in-

volved in intentional observations and actively develop theories that are checked in practice. At the same time, they develop self-knowledge by standing back to critically analyze their own feelings and their own assumptions. The other end of the spectrum describes the teachers who are swayed by their own feelings (they are too involved), have little self-knowledge or who are too detached: they have little awareness of what happens in the classroom or little time to attend to it, have poor frames of interpretation and hardly ever reflect on them.

Although the stories of teachers give clear indications of which teacher observes and reflects actively and which teacher hardly does so, from a distance, one cannot judge whether the observations of teachers are correct. Such a judgement requires involvement in the practice of the teachers.

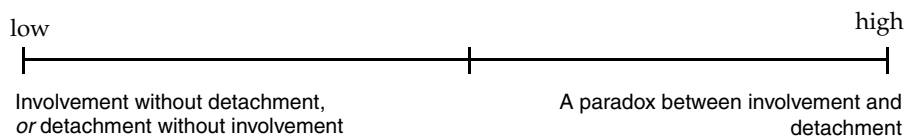


Figure 3.1: Rating the quality of teacher observations.

3.7 A Comparison with the Theory on Teacher Expectations

The concerns of educational experts regarding the quality of teacher observations were based primarily on the theory on teacher expectations. Although this theory has been seriously challenged, it is still widely used.

We showed that students are generally not passive when teachers impose their expectations on them. Rather, students actively contribute to what teachers observe. False teacher expectations would require teachers to insist continuously on believing unfounded truths, while at the same time these 'truths' were being continuously contradicted by the way in which students perform. It is unlikely that students would swallow such a situation.

The theory on teacher expectations fails to conceptualize what it considers to be appropriate expectations. Our analysis of the concept of objectivity showed that teachers need frameworks — expectations! — in which differences exist in order to be able to adequately observe differences between students. The assertion that low expectation creates low results produces a sensory handicap that frustrates adequate observations. During our conversations, various teachers

searched for euphemisms to talk about 'low achievers' in order to avoid labeling. Others explicitly offered apologies, explaining that a terminology of 'low achievers' was necessary to handle the situation in a mixed-ability class. This shows that the theory on teacher expectations has created a climate in which talking about observations of differences as such have been subverted.

The promulgation of the message that low expectations create low results was (and still is) accompanied by the message that teachers should take diversity into account by offering adaptive education. On the one hand, the theory on teacher expectations places a taboo on expressing the assessment that a student is a low achiever, while on the other hand the theory on adaptive education places a taboo on a uniform educational framework in which every student is treated in the same way. Obeying one order automatically implies disobeying the other. Social psychology explains that if paradoxical orders exist without an 'escape' alternative and last for a longer period of time, a 'double bind' situation occurs. Double bind situations are considered to be pathogenetic (Watzlawick, Beaving & Jackson, 1967). Inadequate theories may either affect the teachers' health or force the teacher to take theory with a grain of salt.

3.8 Recommendations

Our analysis of the nature of objectivity shows that it is not appropriate to assume that researchers present a 'higher truth' than practitioners simply because they use research instruments. On the contrary, our analysis shows the limitations of these instruments: they do not allow the researcher to see other aspects than the researcher already acknowledged when designing the instrument; consequently, researchers may ignore important factors. At the same time, the current view of objectivity shows that teachers — because they are involved with their 'object of study' on a daily basis — are in an advantageous position to gain objective information and to learn new things about education. This underlines the importance of the development that is presently taking place in educational theory: it is a trend stressing that teachers should be taken more seriously. More and more researchers realize they should be cautious in making assertions about how to educate. They realize they should cooperate with practitioners and be active as educators (Kelly, 2003). A strong development of this movement may be important in bridging the gap between theory and practice.

4

Classroom Evaluation of Diverse Learners

Evaluation means that students are graded. Our interviews show that teachers try to avoid unsatisfactory grades; therefore, they use adaptation strategies. Some of these strategies entail the active encouraging of students to perform better — they are attempts to ‘drag students across the finish line’; other strategies entail avoiding discouragement. We analyze whether the use of adaptation strategies is appropriate both from a measurement perspective and from a pedagogical perspective and show that it is not wise to set the two goals of evaluation against each other. Teachers who use adaptation strategies acknowledge both goals. They embrace “a paradox between adaptation and provocation”.

4.1 Introduction¹

This chapter describes the perspectives of teachers on classroom evaluation. In the Netherlands, such evaluation has a measurement function as a result of the existence of national standards. In the Dutch system, decisions such as those concerning promotion to the next class (or to a lower or higher stream) are based on classroom evaluation (Verloop & Van der Schoot 1995). Classroom evaluation is based on activities that students undertake as an integral part of the educational program in which they are enrolled (Crooks, 1988). It includes such tasks as teacher-made tests, curriculum-embedded tests and oral questions. Evaluation refers to the process of judging the quality of the performance of the students on these tasks (Terwilliger, 1989). In the Netherlands, national standards on different levels exist for final examinations, which underline the necessity of proper selection

1. This chapter is an adaptation of Bulterman-Bos, J., Verloop, N., Terwel, J. & Wardekker, W. (2003). Reconciling the pedagogical goal and the measurement goal of evaluation: The perspectives of teachers in the context of national standards. *Teachers College Record* 105(3) 344-374.

during the years preceding the final year. This implies that classroom evaluation has a measurement goal during all years of secondary education. In this chapter, we describe the perspectives of teachers on diverse learners on evaluation. We focus on whether evaluation also has a pedagogical goal and describe how this goal is implemented. Next, we evaluate whether the practice of teachers is appropriate from a pedagogical perspective and from a measurement perspective. In so doing, we hope to contribute to a practice-based perspective on the goals of evaluation.

4.2 Literature: The Pedagogical and Measurement Goals of Evaluation

The literature ascribes two different goals to evaluation: a pedagogical goal to support student learning and a measurement goal for selection decisions. The following section reviews arguments for and against the two goals. We then present conclusions and define research questions.

4.2.1 *Arguments for and against the two goals of evaluation.*

A tension exists between the pedagogical goal to support the learning process and the measurement goal for selection decisions that has given rise to an intense conflict about which goal should be given priority.

Measurement of achievement stimulates student effort.

The older (psychometric) literature viewed evaluation primarily as a measurement activity (implicitly) believing that good measurement reinforces a good pedagogical approach. Ebel (1979) disagreed with teachers who show an inclination to 'temper justice with mercy' by yielding to the subtle pressures to give more high marks and fewer low ones. He considered the validity and reliability of evaluation to be central. Marks should indicate as accurately as possible the extent to which the student has achieved the objectives of instruction. Ebel described the goal of measurement as stimulating, directing and rewarding student effort.

Evidence that the measurement of standards (or targets) directs and stimulates student effort appeared from various studies. In 1973, the international study by Kienitz stressed the importance of attainment targets, showing that a system of individual self-development (which only acknowledges a pedagogical goal of evaluation) perpetuated unequal chances, especially for students from

lower social economic backgrounds (Kienitz, 1973; Vos, 1981, WRR-rapport 1986, p.72). Natriello and Dornbush (1984) found that higher standards generally lead to greater student effort and to students being more likely to attend class. Bishop (1995) concluded that curriculum-based external examinations (which are, of course, measured) are incentives for the learner to spend time studying and become actively engaged in learning. Assessment experts in the USA, such as Phye (1997), recommended the introduction of external standards to improve student learning. Thus, research shows that the fact that selection takes place — requiring certain standards to be reached — challenges students to do their best, which fosters the learning process.

Measurement causes low achievers to lose interest.

The literature, however, also presents evidence of the negative aspects of measurement. Natriello and Dornbusch (1984) showed that students who perceived standards as unattainable were more likely to lose interest in school. Paris, Lawton, Turner and Roth (1991) warned that by adolescence, low achievers have become suspicious and cynical about tests. Apparently, in their efforts to decrease personal anxiety and to protect their own self-esteem, they relinquish both effort and appropriate strategies on standardized achievement tests. The authors recommended balancing the psychometric perspective with a psychological perspective on educational assessment. Crooks (1988) made similar recommendations. He concluded that evaluation appeared to be one of the most potent forces in education: it guides students' judgement of what is important to learn; it affects their motivation and perception of their level of competence; structures their approaches to, and timing of, personal study; it consolidates learning; and it affects the development of enduring learning strategies and skills. According to Crooks, too much emphasis has been placed on the grading function of evaluation and too little on its role in assisting students to learn.

Measurement makes education meaningless.

In time, the educational community observed the inclination of the educational system to modify itself in a direction that increased test scores: The practice of testing promoted 'teaching for the test'. Because standardized tests need to be scored unequivocally, the content of what is tested — and what is actually learned at school — is affected profoundly. Items such as "Write an essay about....", for instance, do not result in work that can be scored unequivocally; therefore, such items are unlikely to occur on standardized tests and, as a result, the skills they require become less important. Items that do allow unequivocal answers and con-

tent that can be structured in such a way become more important. These tasks, however, hardly represent the kind of skills necessary for life outside of school. Newman (1997, p. 362) complained that “the kind of mastery required for students to earn school credits, grades and high scores on tests is often considered trivial, contrived and meaningless, by both students and adults. This absence of meaning breeds low engagement in schoolwork.”

Meaningful tasks are hard to measure.

The educational community began to realize that, if tests should include both useful and higher order skills, measuring students performance is more complex than had been acknowledged by the psychometric movement (see also Cizek 1997, p. 19; Good and Brophy, 1986). Frederiksen and Collins (1989) indicated that objective tests, which can be scored in an unequivocal way, lead to teaching strategies that emphasize the conveyance of information and to student learning strategies that emphasize the memorization of facts and procedures, rather than learning to generate solutions to problems. They recommend considering the advantages of subjective, direct assessment. With direct assessment, no procedures have been used to transform the objectives of education into questions that only allow unequivocal answers. A task such as “Write an essay about...”, directly addresses essential skills that students need outside of school and promotes the use of higher order skills. Because a completely unequivocal way of scoring of such test items is impossible, the term subjective testing has been introduced, which implies that a large degree of judgement is necessary to evaluate such tests. Concepts such as direct testing, authentic assessment and performance assessment refer to the focus on the essential or authentic skills that students need to acquire in order to be engaged in society, rather than on the kind of answer that can be scored unequivocally. Some authors, however, wonder whether such tests have anything to do with measurement. Shepard (1991) noted that authentic assessment mockingly has been called measurement-free assessment.

4.2.2 Conclusion and research questions.

When summarizing the evidence for and against the measurement approach of evaluation versus the evidence for and against the pedagogical approach, we arrive at the following conclusion: Evaluation affects the pedagogical process in a way that guides the learning process in the direction of (more or less) relevant learning goals. The more complex the learning goals are and the closer they are to skills that students need in day-to-day life, the more difficult they generally are to stipulate and measure in objective, unequivocal terms. Judging the quality of

student performance, however, is important because this stimulates students' effort. The process of judging, on the other hand, not only affects the quality of students' work but also their perception of their own competence, possibly in a negative way. Thus the arguments for and against the two goals, partly support and partly contradict each other.

The older literature recommends a separation of data for summative use (which reminds one of the measurement goal) and for formative use (which reminds one of the pedagogical goal) (Bloom, 1971). Paris et al. (1991) have demonstrated that a separation is impossible: Tests intended for summative use only, inevitably have a formative impact on students. Teachers seem to understand this; Stiggins, Frisbie and Griswold (1989) observed that in the day-to-day practice of teachers such a separation does not exist.

The diverse and often contradicting arguments for and against either of the goals have created a situation in which experts can be partitioned into three groups: a group that stresses the benefits of measurement and ignores the problems it creates, a group that stresses the problems created by measurement while ignoring its benefits and a group that has a more nuanced position (some members of this group were quoted above). Underexposed in the literature — but acknowledged by those taking a more nuanced position — is that the two goals, although they sometimes contradict each other, both refer to aspects that may contribute to good education. The tension between the two goals becomes all the more visible when classes contain diverse learners, including those students who have troubles reaching the minimum standards.

Our research question, that focusses on the perspectives of teachers on evaluation, starts from the acknowledgement of this tension. We describe the perspectives of teachers on the evaluation of diverse learners. Due to the existence of national standards, (classroom) evaluation has a measurement function. We focussed on whether teachers also acknowledge a pedagogical goal of evaluation. We compare these perspectives with the literature and discuss whether this practice is appropriate from a pedagogical perspective and from a measurement perspective. In so doing, we hope to contribute to a practice-based perspective about the evaluation of diverse learners.

4.3 Dutch Background

The discussion about the goals of evaluation is closely related to the criticism by educational experts of the selective character of Dutch secondary education.

4.3.1 *Evaluation in the present situation.*

The Dutch system of secondary education is based on streaming, meaning that students are assigned to a stream in which all subjects are given at a designated level. There are four levels. Students leave primary education (which is neither streamed nor tracked) with a recommendation for placement in an appropriate follow-up stream. During the first year(s) of secondary education, it often occurs that at least two streams are merged into one mixed class that splits at the end of the year(s). Completely heterogeneous classes, consisting of four streams, also exist(ed). In the classes of the teachers interviewed in the present study, the second lowest stream is always represented (we refer to this stream as the intermediate stream).

Deciding to which stream a student will be assigned begins with a recommendation given by his or her primary school (based on a standardized test, the opinion of the principal of the primary school — that is formulated in cooperation with the teachers — or both). The final decision depends on the way in which the student performs during the first years of secondary education. Performance is measured by classroom evaluation (Verloop & Van der Schoot 1995). Within a stream, the student's averaged report grades for all subjects must be satisfactory in order to be promoted to the next year. Grading usually occurs on a scale from 1-10, with the cut-off score at 5.5/6. During the first years, students with an average of very high grades are usually promoted to a higher stream and students whose grades were too low either repeat the class or move to a lower stream. The rest of the students move on within their stream. The students' parents are generally consulted about the placement of students in the right stream.

Each stream has its own final examinations. Exams consist of two parts: The external part of the exam is constructed by The National Institution for Educational Measurement in close cooperation with a team of practising teachers. Essay components are marked by the students' own teacher and by another teacher with the aid of a marking scheme supplied by the National Institute for Educational Measurement (Bishop, 1995). The school-leaving exam also consists of an internal exam. Although the external part is the same nationally, the content of the internal examination may vary from school to school and sometimes from student to student. Nevertheless, the dual exams are recognized to represent the same level nationally. After graduation from one level, students have access to the stream at the next level.

Classroom evaluation, partly consisting of authentic evaluation (such as essays, presentations or reports of experiments), has always been used for decisions such as promotion to the next class and for the internal school-based part of the final examinations. Nevertheless, psychometric voices saying that classroom evaluation should be unequivocal have affected the evaluation practices of Dutch schools. Standardized non-curriculum based tests, however, are not used in secondary education.

Schools are responsible for assigning students to the right streams. An incorrect assignment to a stream becomes apparent when student grades appear to be exceptionally low (or high). The Inspection monitors the numbers of students that repeat classes and that continue their study in a higher or lower stream. It also monitors the difference between the average grades for internal and external examinations. If an unusually high number of students fail, the Inspection takes action. Recently, the Inspection judged that selection in the first years of secondary education takes place in an appropriate way (Van den Bergh, Peters-Sips, & Zwarts, 1999).

In the Dutch situation, teachers or teams of teachers have substantial freedom in how they use classroom evaluation. In regular practice, however, tests that are of much importance for the final grade (based on the weighted grade-point average) are generally designed by the subject department. These tests are given to all students and judged with the same norms. This limits the freedom of individual teachers to implement classroom evaluation in their own way. More freedom is allowed for low stakes evaluations. Report grades are a weighed average of both high and low stakes evaluations.

4.3.2 *Historical overview of the Dutch discussion on selection.*

Over the years, the selection of students for different streams has been criticized profoundly by educational experts. Looking back on the opinions that have been expressed, we discover a pendulous movement between stressing the importance of (measurement-free) pedagogics at one time and stressing the pedagogical importance of measurement at other times.

As early as 1940, Posthumus published an analysis which became known in the Netherlands as 'Posthumus' Law': when measuring student achievement, teachers generally come up with grades that, regardless of the achievement of students, show a frequency distribution of 25% low scores, 50% medium scores and 25% high scores, which in the international literature is called 'grading on the curve' (Marsh & Craven, 1997; Stiggins et al. 1989). Posthumus concluded

that evaluation of students was based on the intuition of teachers rather than on accurate measurement of student achievement or on any characteristic of the group to be measured. He complained that, under the banner of fair measurement, teachers depended on traditions and tacit suppositions. Those who have to assign just grades without knowing the tradition are at a loss, he said. The solution Posthumus suggested, however, was not to improve measurement but to abolish it. In his view, measurement belonged to the natural sciences and was inadequate for education. He suggested a system of self-development in which — instead of measuring different students with one norm and forcing students to develop in the same way — it was acknowledged that students had different needs and needed a different amount of time to develop. Posthumus' motto was: *'pick fruit only when it is ripe.'* His ideas on the abolishment of measurement in favor of the pedagogical goal of evaluation, however, were never implemented in Dutch secondary education practice.

After WWII, in 1966, De Groot aligned himself with Posthumus' view, agreeing that grades are a reflection of the opinion of the teacher rather than a reflection of the achievement of students. But unlike Posthumus, who supported a pedagogical goal of evaluation, he pleaded for educational goals to be stipulated and be measured. The psychometric movement in the United States was an example he felt should be followed in the Netherlands. De Groot also opposed those practices that Ebel described as *'tempering justice with mercy.'* He acknowledged that this *'paternalistic approach'* could be adequate for primary school children but he asserted that students 12/14 years old and older deserve objective information about their actual achievement. *'Reality testing'*, he believed, is the best way for students to learn what they are worth and where they fail.

De Groot also complained about the number of failing grades that schools assigned and he reproached teachers for taking failing grades for granted rather than using them as an indication that their efforts had not been successful enough. If good education — in the sense that students learn a lot — is not accompanied by many high grades and a few low grades, De Groot stated, it is bad education. In his view, good education required teachers not only to feel more responsible to turn initial failure of students into success, but also to provide the greater deal of individualization. His view reflected the assumption that a measurement-driven approach — that assumed a test-teach-test approach — is also the best pedagogical approach. Implementation of the measurement-driven-approach, he believed, would reduce the performance differences

between students profoundly. Interestingly, he made an exception for his own subject — mathematics — for which De Groot believed ‘giftedness’ plays a role.

Through the publications of Posthumus, De Groot and others, evaluation as it traditionally occurred got a bad reputation among researchers and policy-makers in the Netherlands. In the early years the way in which selection took place was considered to be the problem. Each year again, it turned out that some students did not qualify to pass to the next grade and had to repeat the year. De Groot typified the system as ‘continuous selection with varying standards’. A climate arose in which it was believed that because of this unfair selection process, students unnecessarily ended their school career on lower levels.

In response to the criticism, innovations in the Dutch educational system took place. Initially, measurement of the external standards was innovated: The National Institution for Educational Measurement was founded. For secondary education, its main task became, and still is, the construction of the external part of the national exams. The four existing streams for secondary education, representing an increasing level of difficulty, were attuned to each other. Where formerly repetition of the year or dropping out were the only options for a failing student, it now became possible to progress to the next class, but at a higher or lower level. Moreover, graduation at one stream came to guarantee admission into the second phase of the next higher stream.

In the seventies and eighties, however, selection itself was criticized. The opinion spread that every kind of external differentiation — selection into different streams — could represent discrimination (Van Kemenade 1981); after all, the lowest streams were traditionally filled by students from a lower social-economic background. A merge of the four streams into a comprehensive school was supposed to contribute to a “*promotion de tous*,” a promotion of all; it would postpone selection, thus avoiding mistakes (Oakes, 1985; Terwel, 1988). Many advocates of comprehensive schools (implicitly) assumed that the measurement-driven approach would bridge the differences in ability (WRR-report 1986; see Prawat, 1992). Other advocates of comprehensive schools believed in abolishment of educational measurement in favor of a system of individual self-development. External standards did not belong in such a system; the selective goal of evaluation should be replaced by a pedagogical goal. Posthumus’ motto of “*pick fruit only when it is ripe*” was revived.

The Dutch secondary educational system, however, has always drawn on attainment targets for the different streams. After some years of discussion, it was stressed that self-development without minimum standards would have

negative effects, especially for students from lower social economic backgrounds. In an international study, in which (among others) the American high school was taken as an representative of a system stressing individual self-development, Kienitz (1973) asserted that in the name of progressive education, such a system of self-development perpetuated unequal chances (Kienitz, 1973; Vos, 1981). Newer proposals for innovations in secondary education therefore no longer suggested complete heterogeneity but instead relied on external standards, that, as a corollary of the individual differences between students, needed to be on different levels (WRR-Report 1986).

The idea to merge the streams into a comprehensive school (with or without external standards) was vigorously opposed by teachers. The teachers feared the levels of schooling would become lower (Smeets en Buis, 1986, De Jong en De Jong, 1990). Moreover, local experiments with 'selection-free education' did not yield examples that inspired other schools. The so called 'hidden talent' did not show up in these experimental schools and the differences in ability were not bridged. This was a traumatic period in the history of innovation in the Dutch educational system. The government ended this discussion by proclaiming freedom for all schools to decide whether to merge streams or not, and limited itself to prescribing a common curriculum that became known as the 'Basisvorming'.

Historically, the Dutch secondary school system was based on attainment targets and still is. Experts who opposed to the selective system and to the selective goal of evaluation never gained enough influence to change the system. Their voice died down. Presently many experts concentrate on (unequivocal) measurement and encourage school to do likewise.

4.4 Results: The Perspectives of Teachers on Classroom Evaluation

During the conversations, we invited teachers to define the term *diversity* in their own way. Although various teachers referred to issues such as social background or ethnic identity, all teachers primarily elaborated on diversity in terms of difference in achievement. This underlines the notion that in a system in which all students have to meet the same external requirements, cultural differences are primarily framed in terms of whether students have reached the standards.

4.4.1 Scope of our patterns.

Our results show that 23 of the 25 teachers interviewed are aware that grades used for selection also have a psychological and pedagogical impact. They ac-

knowledge this pedagogical impact by using adaptation strategies to avoid failing grades. Two teachers, however, did not report using evaluation as a pedagogical instrument. They viewed evaluation primarily as a measurement activity, concluding the learning process. Failing grades are the starting point for the use of evaluation as a pedagogical instrument. For students whose achievement is above the cut-off score, a similar kind of adaptation was hardly mentioned.

4.4.2 *Adaptation strategies to avoid failing grades.*

Three kinds of adaptation strategies were mentioned to avoid failing judgements (grades below the cut-off score): (1) Adapting instruction to improve student grades; (2) Adapting the way information is gathered to improve student grades; (3) Adapting the way information is judged to improve student grades. Many teachers reported using more than one of the above strategies.

Adapting instruction (17 teachers).

If student results are below the cut-off score or if it is feared they will fall below the cut-off score, some teachers try to help students by giving extra instruction. This means making a second attempt to explain the subject, using a different method to explain the subject or giving the students another opportunity to work with the subject matter. Feedback on earlier work may be given as well. In six cases, extra practice for students who needed it was embedded in the system, which was based on independent work: After each course, the textbook offered a diagnostic test, pointing out which parts of the curriculum had to be practiced. In addition to this system, four of the six teachers also took personal action. This implies that at least fifteen teachers reported taking personal action.

Often, individual instruction takes place while other students carry on independently.

Mrs. Akkermans: [4.1]

Because of your experience and what you've agreed upon with your colleagues about tests you've designed together, you know the requirements a student has to meet. If a child is weak, he can be stimulated in a number of different ways. One of my students was frequently absent and regularly missed tests and quizzes. When he had to retake them, he would get low grades. I had his mother tell me about the home situation on the phone. In subsequent classes, I tried to make better contact with him and succeeded. I then spent half of a lesson working with him (the rest of the class had to work on their own and they did!).

We agreed that he would work at home to make up for lost time. He does that homework diligently; his grades have improved considerably. The more vulnerable, insecure students need extra positive attention: more turns speaking, compliments, clear agreements on what they are supposed to do, and second chances.

The time available for individual instruction during lessons is limited. Therefore, it sometimes takes place after school.

Mrs. Koning: [4.2]

I have 29 students in my class. That's a big class and there are a few weaker students in the group. I make appointments for after school; I get together a small group. If nothing else, the attention is something they seem to need. There are only three of us in the room and I've noticed that then they have the courage to ask questions, something they might not have the courage to do in a full classroom. I always ask them to describe what they are having trouble with; that in itself is a step towards understanding. Then we use that to get to work or I talk about an exercise; often, things move too quickly in the full class for these kids. Yes, I find this to be very worthwhile.

Some teachers use oral turns for individual instruction.

Mr. Bogaard: [4.3]

If a student gets a failing grade, you have to be able to provide some support. "There's going to be an oral test soon, try to make up for it there." You have to let the kids know you're there for them. And if you give them a turn in class, in a sense, you can explain things while you're quizzing them.

Teachers have thus found various ways to adapt instruction. Their attempts to circumvent failing grades, however, are not always successful, as is illustrated by Mr. Heerma, who is very committed to heterogeneous classes in general and to addressing the diversity of his students in particular, and does not hesitate to invest his personal free time in remedial instruction. Nevertheless, he makes the following remark:

Mr. Heerma: [4.4]

One of the central ideas at our school is that there are communal goals that all of the students should reach. It's our goal: we reach a lot of students, but there are always students who just don't understand. I think you have to take that as a given. I used to have to work extremely hard at math, but despite the effort, I just did not understand it.

Summary of adapting instruction. Adapting instruction takes place while other students carry on independently, after school or during individual turns while

other students watch how the individual student performs. Teachers who apply this strategy, although they believe that their efforts can be successful, observe at the same time that it does not bridge all the differences in achievement. The quotes show that teachers view the personal element ('building up contact, paying attention to individuals, letting kids know you're there for them') as important.

Adapting information gathering (9 teachers).

The strategy of adapting information gathering refers to both the kind of information teachers gather (what) and the method of gathering (how). Adapting information gathering occurs particularly in the case of low stakes evaluations. Stipulating the factors that determine the results of a test is complicated. One such factor is the actual level of difficulty of a test: Even when remaining within the official goals, any one test can be more difficult than another. Often, precise prescriptions about the difficulties of the questions do not exist. This gap is used by teachers.

Mr. Morssink: [4.5]

You get quite a few students who have trouble keeping up. The ones who get such a kick out of getting a high grade that they just blossom. This really has an effect in the long term. It gives them new drive. I consciously give really easy quizzes every now and again. In that way, those weaker students also get a high grade once in a while. The others get high grades too, but that's beside the point. The kids (who need the boost) go home with a high grade. They always get bad grades and now, this is great. You hear parents tell you this. The children get a kick out of it and I can imagine they do.

Adaptation of level of difficulty of the teacher-designed test occurs for the whole class. Only for very low stakes evaluations, such as oral turns that are individual anyway, did we find examples of adaptation of difficulty on an individual level.

Mrs. Tulp: [4.6]

If I ask them questions orally about their homework, then it is clear that I'm going to ask one student tougher questions than another. If a given student can answer an easier question, I'll ask a tougher one. But if I were to ask that student a tough question right off, then there is a chance that the student will cave in while I believe that those students should also be given the chance to show what they know.

The level of difficulty is also determined by the amount of content that a student has to master for one test. Frequent testing of small amounts is a way to generate higher grades.

Mrs. Akkermans: [4.7]

Every child that does its best deserves a pat on the back. If you do your best and it doesn't work, that's discouraging. You can't keep that up. A child that does its best should not be plagued by a constant stream of failing grades. I try to do something about that. There are moments when a good grade can be scored by just studying a little piece of content. If you try to give a child some extra encouragement, "really try to do your best on this one," then there's a good chance of the child getting a better grade at that point. There are so many test moments, times that you give small quizzes, that everyone can get a decent grade at those points.

Some teachers vary the timing of performances, giving low achievers the opportunity to see the performances of high achievers and learn from them.

Mrs. Vogel: [4.8]

If a lesson has to be read and you've got five sentences, then I have good students repeat the first two. After that, the weaker students get turns, once they've had some examples. Students also have to take turns telling a little bit about themselves, a kind of in-class talk, that they start doing in the third or fourth weeks. I never let the weakest students lead this off; they don't start giving their talks until well into the year.

By gathering information on achievement related behavior, some teachers foster an attitude of working neatly. This contributes to better motivation.

Mr. Morssink: [4.9]

Once they've finished a given module, they have to hand in their workbook and it's graded. I deliberately do it this way because I know that colleagues have complained that not doing so creates a mess, not just among the weaker students but all of the students. This led to the decision that these things be handed in and then graded, even though the grade counts for very little, in order to ensure that students do the work neatly. It's not much of a measure, but it works. I think they need that; after all, I know I wouldn't like it if I put a lot of work into something and nobody seemed to appreciate it. That's not very motivating.

By making the effort component visible in the grades she assigns, Mrs. Vink uses evaluation to improve student learning. She believes that for English vocabulary, it is mostly effort that is required, while for English grammar, ability

might be involved. She splits up the grades for vocabulary and grammar with the intention of gathering information on whether the students have done their best.

Mrs. Vink: [4.10]

I always split up grammar and memorization. It's easy for a child to say, I don't understand it. If the score says grammar 7, memorization 5, you can show this to the parents.

Other teachers apply the notion of multiple intelligence (without mentioning this term). They realize that although the educational system generally takes traditional forms of intelligence into account, some aspects of their subjects (for instance, drawing of microscopic images) require a different kind of intelligence. By attending to more kinds of intelligence, they give a broader range of students a chance to score well.

Mr. Morssink: [4.11]

Students are also given grades for drawings they do of microscopic images. This has a moderating effect. You are not just testing their intellectual level, but also their observation skills and their ability to commit these observations to paper. Often, an average student will be quite good at this. When I have to advise on their promotion to the next grade, however, I often look more closely at how they did on the tests. I don't just look at their final grade but primarily — and this is something that shows up on a test — at their ability to deal with large quantities of information, how they have incorporated this into their own body of knowledge. I believe this to be a good criterion for making such a decision. Not just the average, which is often inflated by grades on drawings and the easier quizzes which are given so that weaker students can get a good grade.

By collecting information twice or in other words, giving second chances, some teachers try to avoid failing grades.

Mr. Heerma: [4.12]

If they get a failing grade — they haven't met the basic goals — then they get a chance to redo the test.

Summary of adapting information gathering. As we see, teachers have found various ways of adapting information gathering to help low achievers get better grades: putting forth easy questions, frequently testing small amounts of content, grading effort-related behavior or making the effort component more visible, grading diverse aspects of the content to give a broader range of students a chance to achieve good grades, giving students second chances to write tests, and

scheduling the test in such a way that low achievers may benefit from the example of high achievers. In general, they remain fair to the whole group by applying the same procedures to everybody. Also, second chances are given to 'all' students who have not reached the minimum goals. As for individual turns, no agreements about which questions should be asked exist: Each turn is different anyway. Teachers make use of the absence of such agreements to give pedagogics a chance.

Adapting judgment (16 teachers).

To reduce the amount of failing grades, some teachers adapt the way in which student performance is judged. The most obvious way of adapting judging procedures is simply liberalizing the norms — for example, counting three rather than two spelling mistakes as one failing point.

Mr. Visser: [4.13]

You want to regularly give children the impression that they can do better than a failing grade. So you give them a decent grade. Of course, this means that if you want to remain fair to the group as a whole, the other students are going to wind up with even higher grades. I have to keep this in mind later in the school year. You have to keep in mind that you don't promote children into a grade or level they cannot yet cope with scholastically, so you are constantly correcting your grades. At least I do; I don't know how my colleagues do this. I can't recall that we've discussed this, but I think that, basically, that's how it works. You grade in a range from four to nine, something like that, or if it's a written quiz, five to eight, or sometimes in a range from the passing grade to a nine or a ten. It depends on whether I feel it is appropriate, whether it serves a real purpose...

Although adapting judgment might be intended to help a few student pass, teachers believe they should remain fair towards the rest of the group. Therefore, the new norms are generally applied for all students. We rarely found examples of teachers who gave good grades to just some individuals (which does not imply that it never occurs).

Adapting judgment also occurs at the school level. In connection with the merging of streams, teachers and school boards have found a way to bring more students of different abilities above the cut-off score. Therefore, the traditional scale of 1-10 has sometimes been stretched.

Mrs. Vink: [4.14]

We use a 1 to 14 grading system. From 10 to 14 is defined as high level, 8 and

9 as higher-intermediate, and below that are the lower level grades. In other words, you can get a twelve on your report card. Grandparents find this extremely confusing. I have to admit, it took a bit of getting used to on my part that students could score a 14. But we started using the system when the lower intermediate level was added.

Another (similar) policy, which has also been implemented at the school level, entails judging on both 'basic' and 'extra' levels: high achieving students (who are expected to qualify for higher streams) are held to more rigorous norms or are given optional extra work on tests. Two grades then are assigned: one at the basic level and one at the extra level. Low achievers are told to look at the basic grade and ignore the (insufficient) grade at the extra level. Sometimes at a school level, it is decided that the extra grade will no longer be given to certain (groups of) students.

Mr. Winter: [4.15]

In principle, the marking of the tests starts from the highest level. By means of a conversion table, the mark can be converted into a (higher) mark, belonging to a lower level. If pupils consistently have low scores, we decide, at the school report meetings or during class consultations, henceforth only to give (higher) marks, belonging to a lower level.

The policy of grading on different levels, however, is denoted as cosmetic by some teachers. They indicate that students are aware that their higher grades are artificial and do not believe that such marks really encourage students.

Although some tested aspects of content are obviously correct or incorrect, other aspects of content require judgement. English spelling mistakes, for instance, can be counted, but no procedures are available to quantify the quality of a student's report about a novel that he or she has read. Some teachers make use of the absence of procedures indicating what is right or wrong and fill this gap with pedagogical goals. Mr. Langen refers to this practice as 'subjective grading'.

Mr. Langen: [4.16]

What should be prevented at all cost, especially in the first year, is children failing lots of tests. It is my contention that everybody who does their best, more or less, should score a pass. If you want to keep children working, you should not constantly give them unsatisfactory marks, because then they are bound to give up sooner or later. There's a couple of things you can do to prevent this. Marks can easily be manipulated. You can, for example, ask them to retell stories. I never do that in front of a class; I have a few children come to

me. If you can see that a child has done its best, you can simply give a pass.

To circumvent a negative judgement, some schools have replaced the 1-10 scale by symbols.

Two teachers (working in completely heterogeneous groups) judge effort rather than achievement. Their approach is unusual in Dutch schools, for it is an attempt to downplay the selective function of evaluation. Although most teachers work with minimum standards that are (indirectly) related to the external standards, the grades assigned by these two teachers are not related to any objective achievement. This kind of grading only occurs during the first year of a two year period in which classes are completely heterogeneous (the four streams are merged). During the first year, placement decisions need not to be taken. Grading student efforts, however, is not without problems.

Mrs. Wolf: [4.17]

After a test has been completed and graded, it is discussed with the whole class. Then they are told which answers were possible. At the bottom of the test, they are given a grade: good, pass, or fail. This is aimed at each student individually. It could be that a student comes to me — and at the beginning of the year this sometimes happens — and says: I've counted and I see that I made fewer mistakes than so-and-so and yet I got a 'pass' while he got a 'good'. And I tell them: look, you can do better, so I think you performed less well than the other student.

Teachers who grade effort, however, are not always adequately informed about the amount of effort the students have exerted. Mrs. Wolf continues:

Mrs. Wolf: [4.18]

And then I say, "Yes, I think you can do better; I think you did worse, given your potential, than that other student." If that is really the case, then the student usually doesn't say that much, or just says yeah, you're right. If I'm among them and I notice that a student perceives it as being extremely unfair, I respond by saying, "If you find this unfair, then what you are saying is that you probably can't do much better than this. It could be that I was wrong but I am only trying to get the best out of you."

Mrs. Wolf shows that students who compare their work to other students' are able to see through the mark and still become informed about the objective value of their results. While trying to downplay the selective function of evaluation, she cannot avoid that a positive judgement on a student's work can be interpreted as a negative judgement on the student's ability, which implies a 'selective' function. Grades retain a selective function that directly or indirectly refer

to an objective judgement (for a certain stream). This remains so when teachers use symbols instead of grades or grade effort. This illustrates that the selective function of evaluation is unavoidable. Even when heterogeneous classes have been formed, the differences in performance across the borders of the old streams remain visible. Selection does not disappear with the integration of streams. Students select themselves by their level of performance, as De Koning (1988) noticed.

Summary of adapting judgment of performance. Teachers encourage students by adapting judgement. They (temporarily) liberalize the norms, use a stretched scale, grade on different levels, grade effort instead of achievement, exploit the absence of standards for authentic tasks and use subjective grading (which should take place anyway) to support students. At the same time, they remain fair to the group by applying the same (adapted) procedures of judgement to everybody. Only when procedures are not available (which is, e.g., the case with grading novel reports), they fill this measurement gap with pedagogics.

4.4.3 *An example of the combination of adaptation strategies.*

Teachers often apply more than one adaptation strategy. Eight teachers mentioned only one strategy; seventeen teachers mentioned two or three strategies. Mrs. Van Dijk illustrated how different strategies support each other.

Mrs. Van Dijk: [4.19]

The basic program at our school is such that all of the students should be able to pass. If it looks like they are going to fail - which happens sometimes, right, that students can't even meet the basic demands - then you have to do extra things with those students: give them more opportunities, extra chances to get good grades; you have to set really minimal standards. Not too low, of course, because then they might get lazy. I try to make sure that students like this get passing grades. I'll give them a quiz that is quite easy and they get better grades. I'll write something on the paper like "well done" or "keep up the good work," some kind of encouragement. Sometimes, I go to one of these students, because they often think after they've tried a number of these tasks that they can't do it and I tell them "if you do it like this, then it will work. You can do it. I am sure you can do it." That gives them confidence and then they succeed. If you make sure that they get a few good grades, that spurs them on. If students consistently get bad grades, well, those grades just keep getting worse, so you have to make sure that they are somehow stimulated. An easy quiz is something I give to the whole class, otherwise you just wind up stigmatizing people. A

test on the basic material is equally easy for the whole class. Everyone can get a high grade and the extra material is more difficult. The weaker students won't get a good grade on that part of the test, but that's not crucial, as long as they pass the basic tests.

I sometimes tell one of the weaker students who has failed a number of tests to really take a good look at the homework assignment, because I could ask him or her to work out a problem on the board in class. That gives them a hint and they tend to then study like crazy. I make them work the problem out on the board and then sometimes they get 100% on the quiz. They get a kick out of that. I help them in that way, once in a while.

This teachers thus adapts instruction, way of information gathering and way of judgment of performance.

4.5 A Practice-Based Perspective on Classroom Evaluation

Below, we analyze whether the use of adaptation strategies is appropriate. We do this both from a pedagogical point of view and from a measurement point of view. After this analysis, we offer a framework for judging the quality of the classroom evaluation of diverse students by teachers.

4.5.1 *Judging the adaptation strategies from a pedagogical perspective.*

We have shown that teachers generally apply three kinds of strategies to reduce the number of failing grades: adapting instruction, adapting information gathering, and adapting judgement. The reported purpose of all these strategies is pedagogical: Teachers want to keep up student motivation, to encourage students to achieve better, to avoid disillusionment, and to build self-esteem. The teachers acknowledge what authors such as Crooks (1988), Gagne (1977), Bandura (1982), Schunk (1984, 1985) and Thomas, Iventosch & Rohwer (1987) stressed, namely that evaluation affects student motivation, their perception and their self-efficacy.

In various cases, the adaptation strategies represent ways to challenge students in an active way. By using the strategies, teachers try to drag students across the finish line, so to speak. In this respect, teachers not only acknowledge (see, e.g., Phye, 1997), but also exploit the function of evaluation in stimulating student effort; these teachers 'lower' the standards in order to actively provoke 'higher' results. In other cases, the pedagogical goal is acknowledged in a passive way. The standards are formulated in such a way that too many failing grades are circumvented: students are not challenged to achieve better, but their

motivation and their self-esteem are protected. The 23 teachers who use adaptation strategies, thus, acknowledge the pedagogical aspects of evaluation, albeit in different ways. Especially the teachers who use adaptation strategies to challenge students to achieve better, do not temper justice with mercy but they temper justice with pedagogics. On this basis we conclude that from a pedagogical perspective, the use of adaptation strategies is appropriate.

4.5.2 *Judging the adaptation strategies from a measurement perspective.*

Are the adaptation strategies also appropriate from a measurement perspective? The first adaptation strategy concerns instruction, which, as a part of the learning process itself, is usually seen as being separate from evaluation. The fact that teachers adapt instruction to improve student results, affirms the function of measurement in fostering better results. Thus, the first adaptation strategy seems to be appropriate, but the other strategies — adapting information gathering and adapting judging — are more problematic.

Classroom evaluation inevitably requires judgement.

Within a psychometric approach, the instrument of measurement should be constructed beforehand and it should be clear how the results are judged. Adaptations are not appropriate, particularly not when such adaptations take place to flatter the results. The frequent use of tests on small amounts of content, for instance, could in itself fit within a measurement approach, but the very fact that it occurs on the spot to improve the test results is contradictory. The use of procedures for judging (such as counting the amount of spelling mistakes) that are applied for everybody, fits within a measurement approach, but the fact that those procedures have been developed in order to avoid failing grades for just a few students makes it questionable whether this approach is appropriate from a measurement perspective.²

In classroom evaluation, however, no formally defined reference points exist, neither for the way in which information should be gathered, nor for the way in which the results should be judged. Classroom evaluation inevitably requires teachers to judge the factors influencing the outcomes: the amount and type of instruction needed before evaluation takes place, the way in which information is gathered and the way in which information is judged. Teachers who use adap-

2. Teachers who use adaptation strategies generally remain 'fair' to the whole group by giving the same tests and by applying the same judgement procedures to everybody. Therefore, it is unlikely that students notice the use of adaptation strategies.

tation strategies play with pedagogical opportunities that are intrinsic aspects of classroom evaluation. Because formal criteria are absent, teachers can take the concrete situation in the classroom into account, to 'temper justice with pedagogics'. The absence of formal criteria, however, does not imply that teachers have no reference for measurement at all, as the following teachers demonstrate.

Mrs. Akkermans [4.20]

Because of your experience and what you've agreed upon with your colleagues about tests you've designed together, you know the requirements a student has to meet.

Mr. Visser also relates the way in which he evaluates to his knowledge about the requirements that students must generally meet.

Mr. Visser: [4.21]

You want to regularly give children the impression that they can do better than a failing grade. So you give them a decent grade. Of course, this means that if you want to remain fair to the group as a whole, the other students are going to wind up with even higher grades. I have to keep this in mind that you correct this later in the school year. You have to keep in mind that you don't promote children into a grade or level they cannot yet cope with scholastically.

And Mr. Morssink compares student achievement on the test to his knowledge about the requirements that must be met.

Mr. Morssink: [4.22]

When I have to advise on their promotion to the next grade, however, I often look more closely at how they did on the tests. I don't just look at their final grade but primarily — and this is something that shows up on a test — at their ability to deal with large quantities of information, how they have incorporated this into their own body of knowledge. I believe this to be a good criterion for making such a decision. Not just the average, which is often inflated by grades on drawings and the easier quizzes which are given so that weaker students can get a good grade.

These teachers appear to have some kind of framework that functions as a reference when constructing tests. It is very likely that this knowledge has developed along with the external standards of the final year. Starting from these standards, the level of the first years is gauged. The final standards are also a reference point for deciding which cognitive skills should be emphasized in tests at a certain point during the learning process. During their career, teachers observe many students developing towards the final standards. They experience, for instance, that scores improve when only small amounts of context are tested;

they also experience that during the final year, students must have developed the ability to deal with much larger quantities of information. In other words, the teachers' point of reference for measuring student results does not lie in an instrument but in a culture or a tradition that has been developed along with the external standards: They have a *historical reference* that consists not only of standards but also of experience about how students have progressed towards these standards.

Modern evaluation literature stresses the need for a historical reference.

Interestingly, the conviction that (new) traditions should be formed can be found in modern literature on evaluation and testing. Frederiksen and Collins (1989) believe that subjective direct tests, for which judging is necessary, are unavoidable for measuring higher-order thinking skills. Basing educational assessment on subjective scoring requires that scorers become familiar with a library of examples of student work representing different levels of the desired traits. Along with these examples, assessors should practice scoring until they have internalized the criteria. In this way, they should develop a meta-cognitive awareness of the important characteristics of good problem solving, good writing, good experimentation, good historical analysis, and so on. Frederiksen and Collins also stress that teachers (and students) should learn to internalize these criteria. The authors, thus, do not advocate impersonal judgement by an instrument but a kind of judgement that is based on connoisseurship (Eisner, 1991), which enables teachers to conduct 'interpretive' measurement (see Moss, 1996). Posthumus (1940) was correct when saying that teachers need to know the tradition to be able to assign just grades.

The teachers quoted previously refer to a similar framework. It is likely that their direct or indirect experience with the external standards has been important in constituting this framework. Referring to their experience, they believe they understand the requirements that students should meet during the first years. In this context, they temporarily deviate from these criteria in order to encourage students to achieve better.

A developmental perspective on measurement and adaptation strategies.

The use of adaptation strategies implies that teachers (temporarily) deviate from their internalized standards. Does this comply with proper measurement? It depends on one's view of measurement. As we said before, it does not fit within a psychometric approach. A developmental perspective of measurement, however, acknowledges that the results of measurement influence the learning process.

Within this view, the aim of the selective function is not to confine students to their present level of development but to contribute to proper selection by the end of the period. A developmental perspective acknowledges that humans are “open systems”: their development is an ongoing non-linear process, sometimes unpredictable.

The active use of adaptation strategies can be viewed as ‘on the spot experiments’ (Schön, 1983) to find out whether students can be encouraged to achieve better. As a result of a temporary lowering of the requirements, for instance, some children may begin to flourish, or at least retain motivation. If the teacher knows what he or she is doing, such experiments add to the informativeness of the grades and increase the likelihood of proper placement. In this respect, the use of adaptation strategies may reinforce the measurement goal of evaluation for proper placement decisions.

Had the external standards not existed and had teachers not had a framework of criteria, the use of adaptation strategies would have lowered the standards and have resulted in improper placement. However, it all takes place in a context in which the final standards are not adapted. This limits the room for adaptation. Therefore, the use of adaptation strategies does not always result in the actual prevention of failing grades: Students who do not meet the standards on a long-term basis either have to repeat the year or are transferred to a lower stream. This illustrates that, although many teachers have reduced the tension between the pedagogical goal and the measurement goal of evaluation, the tension does not disappear completely.

Conclusion: adaptation strategies from a measurement perspective.

Our material shows that teachers use some kind of historic reference, both for gauging the qualitative standards that students should reach and the room available for adapting evaluation. The use of adaptation strategies implies that they temporarily deviate from this historic reference. This is not appropriate from a psychometric perspective. From a developmental perspective on measurement however, provided that teachers have an adequate framework of criteria and a proper meta-cognitive awareness of the various ways in which students may develop towards these criteria, the use of adaptation strategies may contribute to proper placement decisions. From this developmental perspective, the quality of measurement lies not in refraining from the use of adaptation strategies but in the richness and adequacy of teachers’ historical framework, their awareness of the cognitive skills that students have to develop to finally achieve the external standards, and in their awareness of the way in which evaluation can be used to en-

courage students to achieve the external standards. The issue is not *whether* teachers use adaptation strategies but *how* they do it.

4.5.3 Conclusion: rating the quality of classroom evaluation.

This discussion on the goals of evaluation tends to be an either/or discussion. The teachers' perspectives showed that it is not wise to concentrate on the good side of either of the goals, while ignoring its negative sides. The two goals of evaluation form a *paradox* of two valuable goals, which unluckily cannot be reconciled easily. Our material showed that good teachers *use* this tension. These teachers *embrace the paradox between adaptation and provocation*: They actively play with the pedagogical opportunities of classroom evaluation to provoke students to achieve better. The active use of adaptation strategies enriches the teacher's toolbox of pedagogical instruments; it creates a way to try dragging students across the finish line. The development of connoisseurship by teachers is essential for using the adaptation strategies in the right way. This connoisseurship develops in practice, rather than in courses in which teachers are taken from their natural setting, which underlines the primacy of experience over the command of formal knowledge and abstract procedures (Eisner, 1988). This kind of knowledge, moreover, is largely tacit (Feiman-Nemser & Floden, 1986; Schön, 1983). Connoisseurship, however, does not cause the tension between the two goals to disappear. Adaptation strategies can only be used on a temporary basis; although they may encourage better achievement of (some) students in the long run, they do not guarantee that all students will actually reach the minimum goals.

Less good teachers are the ones that circumvent the tension between the two goals by focussing on either of the goals. The group that only concentrates on the measurement goal of evaluation take failing grades for granted (we mentioned two of them). These teachers miss a pedagogical opportunity, while they are not better measurers.

The group that only acknowledges the pedagogical goal tries to retain student motivation by avoiding failing grades; a challenge, however, for students to achieve better is lacking. Because the Dutch educational system has external standards, our material does not contain pure representatives of teachers who only acknowledge the pedagogical goal. Even if the teacher does not actively challenge the student, there are always the external standards (on different levels) that need to be reached. Following our line of thought, it is likely that in a context in which no external standards exist, a basis to challenge students would be lacking.³

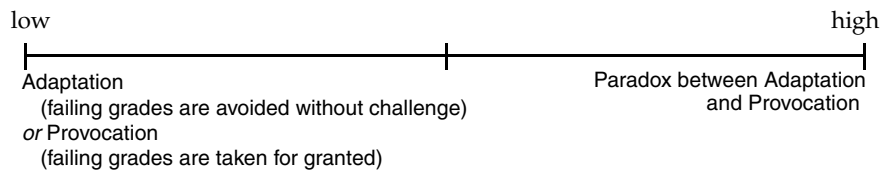


Figure 4.1: Rating the quality of classroom evaluation on a spectrum.

4.6 Recommendations

We have demonstrated the complexity of evaluation. The evaluation of meaningful and higher-order skills requires judgement rather than calculation (Weizenbaum, 1976). This regards the evaluation of student's work but also the evaluation of teachers and of schools. Our culture, however, has a strong preference for objective, unequivocal methods of representation. The complexity of evaluation interferes with the demands of our culture. Under the banner of 'improving educational quality' many educational experts as well as school managers and school boards, have encouraged the formalizing of interpretive judgments into objective, unequivocal measurement. We believe that the quality of education would be served better if society would understand why unequivocal methods can be misleading: These methods impoverishes education and causes the discussion on the quality of education to become trivial and contrived.

Our study also demonstrated that research should operate close to practice. Various researchers assumed that teachers did not implement pedagogical goals in their evaluation practice (Kremers, 1984; Alberts, 1987; Alberts, 1991). These studies, however, failed to discover that teachers had their own ways of implementing the pedagogical goal in their evaluation practice. The world of practitioners is often idiosyncratic, but these idiosyncrasies do not necessarily disqualify the practice of teachers. Rather, as we showed, they may enrich the quality of education.

-
3. This may occur in the USA where (in the absence of external standards) thirty percent of American teachers said they felt pressure to give higher grades than students' work deserved and felt pressure to reduce the difficulty and amount of work they assigned (Sizer 1984, p. 154-158; Hart Research Associates, 1994; Bishop, 1995)

5

The Imitation Tendency Among Students

The most striking aspect of the teachers' stories we found the remarks that we initially denoted by 'reactions of students on each other'. Some teachers explained they had no room to adapt education to the needs of individual students, since as soon as students were treated differently, some of them started complaining that this was 'unfair'. Teachers also observed derogation of high achievers, or derogation of low achievers which sometimes resulted in bullying. On the other hand, many teachers observed that 'the reaction of students on each other' supported the learning process. Low achievers, for instance, took high achievers as an example and did better. The present chapter puts these remarks, that we came to denote by 'the imitation tendency between students', into perspective, thus constructing a component of a practice-based perspective on teaching diverse learners.

5.1 Introduction¹

This chapter describes teacher perspectives on 'the imitation tendency between students'. It is an example of how we developed a perspective by going back and forth between our stories on the one hand and the literature on the other hand. We first present the literature that helped making sense of our data, but we could also have presented our data first. When we started analyzing the interviews, we only sensed that 'the reaction of students on each other' affected the room for teachers to address diversity enormously. We, however, did not understand how to make sense of a myriad of interesting but contradicting excerpts. A study of the literature motivated us to view 'the reaction of students on each other' as an 'imitation tendency'. This led us to read the stories again and to look for fragments that were relevant in the light of the theories on the imitation tendency. This

1. An adaptation of this chapter has been submitted to Teachers College Record.

helped us put the fragments into perspective and lead us to develop a category that contained (1) excerpts about positive aspects of imitation: imitation that supports the learning process (page 83) and (2) negative aspects of the imitation tendency, such as aggressive derogation of high (page 89), or low achievers (page 90) and fragments indicating that the imitation tendency did not support the intended learning process: students did not ask questions because others did not (page 86), deliberately scored lower (page 87) or acted out other orientations than motivation to learn (page 88).

Below, we first present the theories we used to make sense of our data. Next, we present our data and relate them to the theories we presented. This yields a component of our practice-based perspective on teaching diverse learners. Finally, we compare this practice-based perspective with existing assumptions on teaching diverse learners.

Chapter 6 focusses on whether teachers can influence the way in which the imitation tendency manifests itself in classes.

5.2 Literature: The Imitation Tendency

Several research traditions — to a varying extent — helped making sense of the perspectives of teachers. This literature is denoted by the literature on the imitation tendency.

5.2.1 *Reference group theories and group composition theories.*

The importance of social psychological processes between students in classrooms was acknowledged long before the research community discovered the ‘social’ as a constituent of the learning and teaching paradigm. Reference group theories have been used to explore the influence of both low-level and high-level students on each other (Richer, 1976; Dar and Resh, 1986, 1994; De Vries 1992, 1994). These theories are important in the discussions on heterogeneous classes.

The concept of the reference group was introduced by Hyman (1942). Kelley (1952) elaborated on this theory by distinguishing between ‘normative reference groups’ and ‘comparative reference groups’. A group functions as a normative reference group if an individual adopts the norms of that group and conforms to its standards. For instance, if an unmotivated individual is placed in a group of motivated students, by adopting the norms of the group, his or her motivation may increase. Studies attest to the emergence of a normative climate differential between high- and low-level tracks, pointing to greater nonconformity with aca-

ademic objectives and alienation from school in low-level tracks (Stinchcombe, 1964; Hargreaves, 1967; Metz, 1978; Rutter, Maugham, Moritmore, Ouston & Smith, 1979; Ball, 1981; Finley, 1984; Pink, 1984; Veldman & Stanford, 1984, Oakes, 1985; Vanfossen, Jones & Spade, 1987; Kreft, 1993). The normative reference group-theory thus predicts that a climate formed by high-level students will be beneficial to low-level students.

A group functions as a comparative reference group if an individual uses the characteristics of that group to make judgements about him- or herself. Richer (1976) theorized that, if low-ability students in a heterogeneous class choose to take the high-ability students as a comparative reference group, the result will be relative deprivation, because the low-achieving students will thus experience their own inferiority. This may hurt the students' self-image and possibly their motivation. Davis' "frog-pond theory" (1966) predicts similar effects.

Kelley (1952) assumed that (especially in membership groups), the two functions of the group will often be served by one and the same group. This implies that from the perspective of low achievers, two contradicting processes would co-exist: on one hand, the presence of better students would be beneficial; on the other hand, the presence of high achievers would confront low achievers with their own inferiority.

Effectiveness research into group composition showed that a high-resource classroom (on average) positively affects student academic achievement and (on average) augments achievement differences beyond those explained by personal resources (Dar & Resh, 1986). In accordance with the comparative hypotheses, Dar & Resh found that evidence of negative effects on self-image exists but is restricted mainly to academic self-image. This leads to an 'incongruency': the more the class consists of high-resource students, even while this results in a lower self-image, the achievement of low-resource students will be higher. The authors, thus, showed that there is no evidence of a negative impact of this self-image on academic achievement (Dar & Resh, 1985, 1994). Other studies also showed that the so-called frog-pond effect does not exist, in other words: that the lower self-image does not affect achievement in a negative way. These studies, thus, support Dar & Resh's view that a high-resource classroom positively affects the academic achievement of low achievers (De Vries & Guldmond, 1994; Hallinan & Kubitschek, 1999; Guldmond & Meijnen, 2000; Terwel, Gillies, Van den Eeden & Hoek, 2001). De Vries (1992) showed that these effects exist, but are minor.

These results have often been used to advocate heterogeneous classes. They correspond with the perspectives of teachers reflecting positive aspects of the reaction of students on each other, but do not help to make sense of perspectives of teachers on the negative aspects. Dar and Resh, however, showed that the high-achievers in heterogeneous groups on average lose, albeit they lose less than low-resource students win. The data do not supply information about the way in which the results are reached, in other words, whether the effects are accompanied by peaceful cooperation or by derogations. Thus, the theories on group composition largely serve to make sense of the perspectives of teachers on the positive reactions of students on each other but serve less to make sense of the negative aspects.

5.2.2 *The social comparison theory.*

Festinger's social comparison theory (1954) showed that, while social comparison may contribute to better learning, it may also be accompanied by aggressive rivalries and even result in rejection from the group. Festinger described the craving of human beings for self-evaluation and the necessity for such evaluations being based on the comparison with other persons. He believed that the desire for self-evaluation is an important factor contributing to making a human being "gregarious". In human communication, there is a 'pressure towards uniformity' at work, he stated, and he hypothesized that uniformity establishes a state of social quiescence.

Festinger distinguished between processes with respect to opinions on the one hand, and processes with respect to abilities on the other hand, although he also mentioned that in most situations in real life there is a mixture of opinion and ability evaluation. As for abilities, Festinger stressed that different performances are not equally valuable: the higher the score, the more desirable it is. With respect to most opinions, however, in the absence of comparison, no opinion in and of itself has any greater value than any other opinion. Opinions can be changed to achieve uniformity but abilities cannot be changed to achieve uniformity.

In human communication, Festinger believed that a state of social quiescence is achieved if there is a uniformity of opinions. With respect to abilities, however, such a state of social quiescence is never reached. The pressure towards uniformity with respect to abilities manifests itself less in a social process and more in action against the environment which restrains movement towards uniformity. For instance, persons who perform less than others with whom they compare

themselves may spend considerable time studying, or discourage others to work hard. So, when a discrepancy exists with respect to opinions or abilities, there will be tendencies to change one's own position, a pressure to change others, or a pressure to change the factors that restrict the movement towards a state of uniformity. Because of the unidirectional push upwards, which Festinger hypothesized to operate simultaneously, competition does not cease when uniformity concerning an ability is reached.

Festinger stated that people tend to cease comparing oneself with those in the group who are very different from oneself. People will redefine the comparison group so as to exclude those members whose opinions are most divergent from one's own. This leads Festinger to assert that in the case of opinions, the process of making others incomparable will be accompanied by hostility or derogation and will possibly lead to rejection from the group. As for abilities, in circumstances where a person is restrained from leaving a group, deviating members may have to suffer punishment. If they deviate towards the higher end of the ability scale, they can publicly conform without privately accepting the evaluations of the group, in other words: high achievers can decide to deliberately not to do their best. If they deviate towards the lower end of the ability scale, it may be impossible to conform. Publicly, low achievers may strive to perform better, while their private evaluation of their ability may depend on whether other comparison groups are available.

Salovey (1991), a contemporary psychologist who focusses on social comparison, concluded that envy and jealousy often accompany social comparison, which may result in changing self-definition, reducing the relevance of the comparison person through relationship distancing, derogation of rivals, re-attributing the source of the other's success, and violence. This is why traditional cultures developed rituals and other protective devices to inhibit behavior that might arouse envy in one's self or others (Salovey, 1991 p. 279). At the same time, Salovey agrees with Festinger that social comparison might provide incentives for achievement and innovation.

(Some supporters of) the (neo) social comparison theory, thus, acknowledge that social comparison may support learning, but stress(es) that this process is not always peaceful. In this respect, this theory helps making sense of the perspectives of teachers on the positive aspects of 'the reaction of students on each other', as well as some negative aspects, such as deliberately scoring lower, and aggressive derogation of high or low achievers.

5.2.3 René Girard's mimetic hypothesis.

Central in the hypothesis of René Girard, an anthropologist who reflected on the development of human culture, is the concept of imitation, he calls it 'mimesis'. The concept of mimesis goes back to Plato and Aristotle. Girard views it as a universal disposition of humans. People tend to imitate other, seemingly more substantial and imposing figures. These become their "mediators" or models. Wanting to be like them, they imitate the model in their desiring: what the model wants, they want too. While the imitator may not be aware of it, the desire is actually aimed at the mediator's being (Girard, 1965 p. 54) and the object of desire is only a means of reaching the mediator.

In this way, various objects of desire can be mediated. Models may mediate the importance of high scores but they may also mediate the importance of a sense of humor.² Because, however, the object is only a means of reaching the model, the object of imitation may *shift*.³ Low achievers, for instance, may score off high achievers by performing their sense of humor and, thus, change the common desire of the group.

Girard not only supposes that human beings tend to imitate others but asserts that models need the desire of others for the same object to remain interested in that object. They, thus, want to be imitated; they display the qualities or properties they hope others will desire. If others are not interested, (for instance, in high scores) people will lose their own interest in the object (and high scores become less important). Other objects, qualities or properties, which do draw the desire of others will become important. Thus, the desire to excel and to distinguish oneself from another lifts existing differences and leads to uniformity. In this respect, Girard and Festinger are on the same line. Their theories point out that a tendency to distinguish oneself from another does not contradict (as Buunk and De Vries (1991) suggest), but is *accompanied by*, a tendency towards uniformity. In their criticism on the modern view of man as being 'autonomous', the two scholars also agree: where Festinger talked about humans as being gregarious, Girard's considers the autonomous image of man as a 'modern illusion' (Girard

-
2. Hemmings (2003) described how some Black Americans acquire 'reputation' in neighborhoods and schools by limited use of standard English, standing up to authorities, showing up male rivals, and controlling women through multiple sexual conquests and harassment.
 3. This occurs, for instance, in fashion: what is highly desired is after some time replaced by other objects that are highly desired.

1965) and prefers to view humans as 'inter-vidualistic' (as opposed to 'individualistic').

The mimetic desire is a constituent of the learning process, Girard believes (Girard, Oughourlian, & Lefort, 1990, p. 17, 18). Mimesis is 'good in essence', as Girard (1999 p. 24) stressed. "If people would cease to imitate, culture would vanish into thin air. Neurologists often remind us that the human brain is an enormous imitation machinery" (Girard et al., 1990, p. 17, 18). The importance of mimesis has been acknowledged throughout history, Girard stresses, but its negative, aggressive aspects have been neglected. Aggression arises because people not only imitate other people, but also want to possess the objects or properties that other people have (Girard et al. 1990 p. 19). In this way, people become each other's rivals, fighting around an object that usually only one possesses. The antagonists will seek out the objects most keenly desired by the most powerful rivals, since only those will seem worth aiming at. The mimetic desire easily leads to situations in which the imitator is 'attached' to the model because the imitator desires the model's qualities, but discovers the other as an obstacle to get the object. Hate may be the result (Girard 1965; Kaptein & Tijmes, 1987). This may cause a circle of resentment and aggression, which may result in bullying, scapegoating, victimization, and exclusion from the group. Girard, thus is on the same line as Festinger and Salovey when he stresses that the imitation tendency, although it may support learning and achievement, may also lead to 'mimetic rivalries' that manifest themselves by envy, jealousy, and aggression.

This indicates where the 'uniformity pressure' comes from: while it is on the one hand a result of imitation, which is the motor of learning, being different, on the other hand implies a danger in itself, for somebody who differs is likely to be confronted with aggression, and according to Girard, finally likely to become a scapegoat. (This also appears from the literature about bullying: Olweus, 1999, 1991, 1993a & 1993b; Van der Meer, 1988, 2003 who also refers to Girard's theory). Displaying uniformity in behavior is thus the safest way to avoid being bullied and becoming the scapegoat.

Central to the educational process as described by Girard is the model. Our study focusses on how other students may function as models, but of course, peers outside of school or grown ups (the teacher, the parent, the idol etc.) may be models as well. The importance of models concurs with the intuitive wisdom stressing the importance of the '(good) example' in education. By pointing to the role of models, Girard actually stresses the importance of the human *relation*. Where many theories view education as a technique in which the teacher manip-

ulates certain variables, Girard's analysis stresses the importance of relationships as a driving force in education. These relationships, however, are not always peaceful.

Girard's theory corresponds with the perspectives of teachers that on the one hand indicate that 'the reaction of students on each other' supports learning, but on the other hand shows that imitation may encourage students to refrain from asking questions (because others don't), or even refuse individual support (because others don't get such support either). This is considered in the next chapter.

5.2.4 *Social Constructivist literature.*

The social constructivist literature stresses the need for integrating diverse learners in a 'community of learners' (Scamardalia & Bereiter 1989; Resnick, Levine, & Teasley, 1991; Palincsar, 1998, Reigeluth, 1999, Rogoff 1991, Prawat, 1992). Vygotsky, to whom many supporters of the social constructivist approach often refer, used the word 'imitation' literally.

Vygotsky wrote:

"In the child's development, (...) imitation and instruction play a major role. They bring out the specifically human qualities of the mind and lead the child to new developmental levels. In learning to speak, as in learning school subjects, imitation is indispensable. What the child can do in cooperation today, he can do alone tomorrow." Vygotsky (1974, p. 104)

Vygotsky stressed that children can imitate a variety of actions that go well beyond the limits of their own capabilities. "A full understanding of the concept of the zone of the proximal development must result in reevaluation of the role of imitation in learning" (Vygotsky, 1979, p. 87). Piaget's (1952) concepts of 'adaptation', consisting of assimilation and accommodation, are in the same vein as the concept of imitation: all these concepts reflect ways of reaching 'uniformity' with the outer world.

The social constructivist literature corresponds with perspectives of teachers on the positive aspects of the imitation tendency, and — at first sight — does not seem to correspond with the negative aspects. Under the motto that 'the social paradigm' supports learning (Palincsar, 1998), it is suggested that all children naturally have the freedom to freely explain their ideas and discuss disagreements, while leaving ample room for diverting opinions. The term 'learning community' in itself suggests a community in which every student is naturally focused on useful material. The defining quality of a learning community, as

Bielaczyc & Collins (1999) write, is that there is a culture of learning in which everyone is involved in a collective effort of understanding; students need to learn to respect other students' contribution and differences, and feel safe in speaking up and giving their own ideas; there must be a sense that failure is okay.

Although the less positive aspects of 'the social' do not seem to be integrated in the paradigm, close reading of the social constructivist literature shows that some researchers found the aspects to which our teachers refer. Palincsar's review of research on social interaction (1998) was intended to demonstrate the importance of 'the social' for acquiring intellectual skills. Among the reviewed studies, however, were various ones indicating that the matter is more complicated. Russell, Mills & Reiff-Musgrove (1990) showed the importance of considering social status within the group. Social dominance appeared to influence whether a child's answer was adopted by the second child. O'Connor (1998) showed that social relationships can work against group sense making and the negotiation of meaning. She discovered that learning opportunities were filtered through complex interpersonal contexts. Specific phenomena included: discounting or dismissal of individual contributions and resistance to the spirit of the entire enterprise. Cobb and Bowers (1999) stressed the importance of the social situation that is constituted by the students while they participate in the learning process. They view the diversity in student reasoning as 'a resource on which teachers can capitalize', which suggests a great deal of optimism regarding 'the social'. However, they also refer to students who cannot participate in these practices and are excluded.

Researchers who concentrated on cooperative learning also found more than cooperation only. Cohen (1986; Cohen & Lotan, 1995) elaborated on patterns of unequal interaction in groupwork. She stressed that high-status children are likely to dominate the group discussion; however, she cautioned that in some groups, some low-status members are more influential than high-status members. Apart from various benefits of cooperative learning (Slavin, 1983), research also showed a number of less positive effects arising from cooperative learning, such as the 'free-rider', the 'sucker', the 'status-differential', and 'ganging-up' effects (see Druckman & Bjork, 1994; Salomon and Globerson, 1989 p. 95).

We conclude that close reading of the social constructivist literature nuances the motto that 'social interaction supports learning' and in this way, this literature corresponds with the perspectives of teachers on both the positive and the negative aspects of 'the reaction of students on each other'

5.2.5 *Research question.*

Starting from the theoretical notions above, we describe the perspectives of teachers on what we came to denote as ‘the imitation tendency’. In each paragraph, the fragments of the stories will be related to theoretical notions. In this way, we construct a component of a practice based perspective on teaching diverse learners.

5.3 Methodology

‘The imitation tendency’ was no part of our planning model that structured the interviews. It is an *a-posteriori* category that came about because we gave teachers a lot of room to elaborate on what was important for them. Thus, it is a result of spontaneous reaction. Nevertheless, the stories of nearly all the teachers contained useful fragments on the imitation tendency. Two teachers, however, did not refer to social processes between students. One of them literally said: “In this conversation, I’ve made it clear that I’m not concerned with differences among students and that these differences don’t interest me”. The other teacher was primarily dedicated to checking whether individual students had done their work and did not concentrate on social processes between students.

5.4 Results: Teacher Perspectives on the Imitation Tendency

The fragments on social comparison including imitation between students were categorized as follows:

1) *Positive aspects*

- Fragments reflecting teachers’ belief that imitation of other students supports the learning process;

2) *Negative aspects*

- Fragments reflecting teachers’ belief that imitation of other students does not support the learning process, for instance, because students:
 - do not ask questions (because others don’t);
 - deliberately score lower in order to belong to the group;
 - are proud of qualities other than motivation to learn;
- Fragments about teachers’ experiences of aggression, for instance
 - a derogative attitude of students towards high achievers;
 - a derogative attitude of students towards low achievers;
 - a derogative attitude towards students who otherwise differ.

At the end of each paragraph, we draw a relation between the data and the theory about the imitation tendency.

5.4.1 *Positive aspects of imitation.*

This section discusses the positive aspects of imitation, namely when imitation supports the intended learning process.

Imitation supporting the intended learning process.

Many teachers believe that the good example of students motivates other students to achieve better.

Mrs. Vink: [5.1]

During the oral exercises, the weak pupils are inspired by the good ones — they are surprised when the latter use words they don't know. That stimulates them.

Mr. Visser: [5.2]

When a pupil sits next to a friend who wants everything in his exercise book to be correct, he also wants to keep up. That's how it works. Two boys in my class used to have a neighbor who concentrated much better than the neighbors they have now. For example, you explain something, and this lad raises his hand and says: it's probably like this or that, and that more or less causes them to compete. It's competition. They want to compete with him. So there's somebody else who also wants to know something. That does stimulate.

Mrs. Akkermans: [5.3]

In order to keep them motivated, you have to do the experiments. Yes, and then it's quite all right for a child who has finished everything to be rewarded: then he can work with the microscope. That's a kind of reward, because you're allowed something that somebody else isn't. The other children also see this. And suddenly, during the next lesson they, too, finish everything.

Mrs. Vogel: [5.4]

The opportunity to participate in 'show and tell'-turns also provides stimulation, because they enjoy them very much. If you can think up a few things that the kids like, then I think that this can stimulate the whole class, because all of them want to join in.

Mr. Veling: [5.5]

It's all right for a strong pupil to sit beside a friend who is weaker. And then they can work on an assignment together. But it is a fact that the strong one knows the answer faster than the one sitting next to him. And then you are left

with the problem that one copies the work of the other. That's a hard one to catch, because in a test they often manage to score — by the skin of their teeth — a mark in the same category, even though it may be a point or two below the stronger one. Then they achieve above their level, because they are swept along.

The teacher quoted above describes that some students achieve better than expected. He associates it with students who copy other students' work. (This may take place during assignments, but is not allowed during tests). This suggests that he doubts whether the influence of other students really causes better results; at the same time, he observes these results.

In the context of group composition, teachers also refer to imitation supporting the learning process.

Mrs. Vogel: [5.6]

Last year, we started working with three levels: two intermediate levels and one high level. Before that, I'd gotten used to only the intermediate levels. So this year, we got more good students. This has raised everything to a higher level: entire classes do better, including the lowest group. There are three or four people in this group who get failing scores. But I don't think this is due to the fact that they are in a mixed class. Since we now also have better pupils, the overall level has gone up. When I look at the work we've done as the next class of older students come in, I think: wow — those first year kids are doing really well!

Mrs. Vink: [5.7]

Students of the intermediate level in this class, strongly lean on the higher level pupils, also in terms of their attitude. You notice it immediately. In the second year, the lower intermediate group is homogenous, so you don't need to be better than average. Being outstanding is not exactly popular. This may cause a downward spiral. Heterogeneity probably benefits the weaker students because it stops them from thinking: we can take it easy.

Mr. Smit: [5.8]

I've got the idea that the weaker pupils feel more challenged by the tougher materials and the better pupils. When they eventually end up in a homogenous group where everyone is at the same level, you see their performance goes down because there are no other pupils around who pull them up. That's how it works: they watch each other and their results, and for some that's just the spark they need: damn, that one's good, next time I'm going to do better.

Mrs. Gerhard: [5.9]

I must say, we've seen a few times that we put weak kids together in the second year. Well, in that case they don't pull each other up, they pull each other down. In everything: if there are a lot of impudent ones together, the one kid who really wasn't all that impudent becomes impudent as well. And if there are a lot of people together who aren't interested at all... Heterogeneous classes are homogeneous in comparison with classes with only weak ones in them. If a positive attitude prevails, I know that will benefit the weak ones more.

Mr. Bogaard: [5.10]

If I only look at it from the cognitive angle and I had only good ones in class, I would be able to work faster, I'm absolutely certain of that. But I don't think that the less fast ones, if I had all of them together, would make more progress than now in such a (heterogeneous) first year. Look, a class also needs pupils who are ahead of the pack. A class in which everyone is at the same, not too high, level can say, this is what it's like and that's it. Anyone who's not that interested in what I'm saying can think: pal, it's your dime, keep on talking. But if you explain something and you get a response and the top level student thinks it exciting: oh, now I get it! Personally, I do not feel the weak ones are short changed at all. Rather, they benefit.

Mrs. Wolf: [5.11]

Pupils who are somewhat weaker have to be given the self-confidence to grow. They can take their cue from the children who are strong. As a teacher, you have a directing role by showing pupils that this is not unachievable, but something you climb up to.

Mr. Visser: [5.12]

In the Christmas report, we evaluate who can move up to the second level. So last Christmas, two transferred up. There's one girl in the class who may move on later. That system is better for the children, of course, but not for the class as a whole. No, they were the eager beavers, who wanted to score high to move on. And they were positive influence. And now they've left. And then you've lost that support.

Many teachers, thus, believe that the imitation tendency supports the learning process. Their perspectives correspond with the theory on group composition, with the social comparison theory, with the mimetic hypothesis, and with the social constructivist literature.

5.4.2 *Negative aspects of imitation.*

The complete picture that our story yields, however, is more nuanced. This section discusses two negative aspects of imitation: imitation that does not support the learning process and imitation that is accompanied by aggression.

Imitation not supporting the intended learning process.

Of the nine teachers who describe positive aspects of the imitation tendency, seven also experience negative aspects.

Hiding questions or problems. Teachers regularly find that students don't raise their questions or problems.

Mrs. Wolf: [5.13]

In our one on one meetings, students sometimes say: 'we did that in our natural science class, but I just didn't get it, and I'm not the only one.' Then I will ask: 'why didn't you say so?' 'Well, I often can't follow everything but I'm not gonna keep saying that, you know, — that's bogus.'

Mr. Siebelink: [5.14]

My experience is that pupils don't like to say they don't get it. They keep it hidden because it's not cool to advertise it. This is a bit of a problem. This forces me to discover who understands and who doesn't, which is easier to do with some than with others.

Mr. Heerma: [5.15]

It's difficult for me if they don't get things and things stay unresolved after class.

Mrs. Koning: [5.16]

Sometimes I'll arrange a meeting with small groups of pupils after school hours to explain things. And when it's just the three of us, out come the questions, which they don't dare pose in a crowded classroom.

Mr. Dorrestein: [5.17]

Of course, you've got to take care that it's not the same pupils, the clever ones, who always come to your desk, and that the very quiet pupils — the ones that take five minutes to produce one sentence, which also happens to be wrong — don't want to come.

Mr. Veling: [5.18]

Weaker children often have a lack of self-confidence, too. They are not exactly bursting with their questions. With this system, you run the risk of overlooking the weaker ones because they don't tend to express themselves so

much. But there are also pupils who are so insecure they will come to your desk all the time. Sometimes they will ask a question before the whole class, and you've got to stop the entire class from shouting: What? He must be nuts. Who'd ask a question like that!

Some teachers only observe that students are not open about their problems, while other teachers also explain why this occurs. Expressions such as 'he must be nuts, who'd ask a question like that?' indicate why some students think that posing questions is 'bogus', or 'don't dare to ask questions in a crowded classroom'. This is not addressed in the theories on group composition. Status issues are (incidentally) addressed in the social constructivist literature. The perspectives of teachers correspond with Festinger's uniformity pressure and with Girard's framework saying that people in a 'different' position run the risk of becoming the scapegoat. The excerpts above show that students who do not raise their question or problems are directed by group processes that undermine the intended learning process.

Deliberately scoring lower. Some teachers believe that students avoid outstandingly high scores and deliberately score lower. (In the Netherlands, a '10' is the highest score.)

Mr. Langen: [5.19]

Of course, bizarre things happen, like someone getting a pass mark and the entire class howling: oh, you, Einstein! The consequence is that the clever kids adapt to this sort of thing. There were a few who wanted to be part of the group, so they just stopped making an effort. Which is a very obvious response. So they got bad scores and they would look about sort of triumphantly: 'look at me, I'm one of the gang.'

Mr. Bogaard: [5.20]

It does happen that someone who's very good — this is the down side, of course — actually wants to be less of an achiever because he thinks: 'they will call me a ... oh, it's him again with his 10.' I've heard about pupils who make a mistake deliberately to avoid this.

Mrs. Vink: [5.21]

Being outstanding is not exactly popular. This may cause a downward spiral.

The fragments above show that group processes may direct students in such a way that the intended learning process is no longer their first priority. These fragments show that low achievers may influence high achievers in a negative way. The theory on group composition stresses that high achievers may influ-

ence low achievers in a positive way, but it stresses far less that the reverse may also occur. Dar & Resh (1985, 1986), however, did show that high achievers lose in heterogeneous classes. At first sight, the fragments may not seem to correspond with Festinger's theory, because he hypothesized an unconditional push 'upwards' for cases in which 'objective measurement' is possible, which implies that higher scores are always better than lower scores. By introducing the factor 'relevance' or 'importance' of a certain ability, however, Festinger nuanced the unconditional push upwards. The more relevant an ability is considered to be, the more pressure towards uniformity Festinger expects; if, however, uniformity (of ability) appears to be unachievable, the uniformity pressure starts to focus on the environment. Such an action with respect to the environment could imply that low achievers start to discourage high achievers to do their best, which is shown by the fragments above. In this respect, thus, the fragments correspond with the social comparison theory.

The fragments above correspond with Girard's theory (1993, 1998): he stressed the danger of being an exceptional case. The problems described above are only incidentally addressed in the social constructivist literature.

Acting out other orientations than motivation to learn. Some teachers noted that learning was not the only motivation.

Mr. Schipper: [5.22]

If somebody does strange things, it can be that he doesn't get it, but that he has to save face.

Focussing on qualities other than motivation to learn shows an reversal of the object of imitation: somebody for whom high scores are not within reach tries to influence the group in such a way that his or her own qualities become desired. Girard explicitly underlined this phenomenon. Festinger did not articulate the shifting object explicitly but he indicated that the uniformity pressure affects the 'relevance' of a certain ability, thus pointing out the consequences of the shifting object.

Aggression.

Aggression is behavior intended to inflict injury or discomfort upon another individual (Olweus, 1999, see also Olweus, 1973; Berkowitz, 1993). For Olweus, there is no principle distinction between aggression and bullying in that bullying is exposure to aggression *repeatedly and over time* (Olweus, 1999 p. 10).

Where possible, we have put the fragments about aggression in order of increasingly levels of violence.

A derogative attitude towards high achievers. Aggression appeared from student's attitude towards high achievers.

Mrs. Vogel: [5.23]

They come up with slurs sometimes: 'oh, I suppose that's another 9 you've got there, oh naturally.'

Mr. Bogaard: [5.24]

It does happen that someone who's very good — this is the down side, of course— actually wants to be less of an achiever because he thinks: 'they will call me a ... oh, it's him again with his 10.'

Mr. Visser: [5.25]

The better pupils will certainly benefit from moving on to a higher level. You see, they're not exactly popular in the lower group. They're ambitious, which is not really appreciated.

Mr. Veling: [5.26]

Terms like 'nerd' or 'egg head' are actually used. This starts pretty soon at the beginning of the year. It's hard to say what's behind it. Probably envy. Or simply: 'Geez, a nine! I never got a nine in my whole life!' It needn't be jealousy, but the point is, how do I handle it? Some pupils run into difficulty with this: they have the right attitude, they get good marks — I don't mean tens or something, but, you know, eights, straight eights — but then others say: 'Ah! He's been at it all night!' But the poor kid thinks: 'I like this stuff, but the others give me grief.' I pass this on to the group's mentor who says that it is just the standard groups competing against each other'. 'Hay nerds! Yes, you in your towers!'

Mr. Langen: [5.27]

At our school, we had a so-called heterogeneous class with only a few 'lost smart kids' mixed in. That's really a bad idea: to have three or four kids who are twice as fast as the others. They are happy at first: 'Boy, this is a breeze'. They soon discover, however, that the rest of the class doesn't appreciate this, and will gang up on them. At the end, you'll literally find them drawn back in a corner. Whatever you try, you can't avoid that. It's socially unmanageable.

You don't carry enough weight in class to save them in a social sense. There are very blunt things, of course, like someone getting a pass mark and the entire class bellowing 'Einstein!'. Well, they don't like that at all, for you shouldn't forget that the smart kids were also pretty smart at primary school and found themselves in the eager beaver section there too, so they've been there before, they cower, they have no defence. But then again, what do you expect when you

have two or three smart ones in a class full of children struggling to keep up ... it's bound to end in tears. I've witnessed poignant cases of children running away from the classroom howling who didn't want to go back to school.

These fragments all show a relationship between achievement and some degree of aggression. The last fragment is an example of a student who was victimized as a result of bullying. The theory about the imitation tendency explained why such things may occur. Girard (1999, p. 24) stressed that mimesis induces rivalries. If the imitator reaches the object, the model, in turn, may become envious, which causes the process of imitation to turn against the imitator (Girard, 1987 p. 344). This creates a circle of resentment and a divided community. Resentment and aggression may end in real violence and scapegoating. Festinger described a similar process. People may cease comparing themselves with others who are very different. This may lead to hostility, derogation, or rejection from the group. Salovey (from a neo-social comparison perspective) believed that even though social comparison and envy might provide incentives for achievement and innovation, it poses a threat to social order by arousing anger and suspicion. The theories on group composition acknowledge some degree of rivalry between students but do not indicate that such rivalry can become aggressive. The social constructivist literature incidentally stresses that exclusion should not occur (Cobb & Bowers, 1999).

A derogative attitude towards low achievers and showing off. Aggression also appeared from student's attitude towards low achievers.

Mrs. Wolf: [5.28]

There are differences in terms of understanding and grasp. You explain something and you try to do so in pretty simple terms, and then you hear: 'Man, if you don't even get that!'

High-achieving pupils have a pretty easy time of it in the classroom. They will do everything in a jiffy while others require more time. So they keep getting the feeling: 'I'm number one around here. Look at me, I've got it covered!'

Mr. Heerma: [5.29]

There is a risk that pupils in the upper echelons may take on a somewhat arrogant air.

Mrs. Vogel: [5.30]

Occasionally, I hear the class making slurs on pupils who have scored a three or thereabouts.

Mr. Dorrestein: [5.31]

You have to watch out that the good students aren't always raising their hands.

So, no questions, since it does make sense to always give the same kids a turn. They know their stuff and they like to show off, but it does not add much for the class.

Both fragments in *A derogative attitude towards high achievers* on page 89 and *A derogative attitude towards low achievers and showing off* on page 90 show a relationship between achievement and some degree of aggression. In the first case, the high achievers are victims of aggression; in the second case, the high achievers are the perpetrators of aggression. A derogative attitude towards low achievers may be a reaction to the negative attitude held by low achievers towards high achievers and vice versa. According to Girard, these phenomena are often each other's complement: mimetic rivalries have a cyclic character, in which people take turns frustrating each other. Showing off one's qualities may play a role in this cycle in the sense that it causes low achievers to feel their own inferiority and become envious of the high achievers' qualities, which, according to Girard, the high achievers need to acknowledge the value of this property. (Or the low achievers may find a model who mediates other qualities than learning results, thus 'demotivating' the high achievers). Festinger is less explicit in how rivalry between students develops, while the group composition theories do not acknowledge circles of aggression at all.

A derogative attitude towards students who otherwise differ. We identified two types of attitudes towards students who differ. The first concerned relationships with the teacher and the other concerned cultural groups.

Concerning students who have a different kind of relationship with the teacher:

Mr. Veling: [5.32]
Pupils who ask a lot of questions or come up to my desk regularly think it's perfectly normal, or at least, that's the impression I get. Sometimes, though, I'll hear others sneer: 'hey ... kiss-ass!'

Concerning students who belong to a different cultural group:

Mrs. Gerhard: [5.33]
Last year, my first-year class had big fights involving a lot of swearing: 'You clodhopper', or 'nasty Turk', or 'city miss' or things like that. There was a lot of clique forming, complete with gossiping, backbiting, stirring up trouble, and wrecking bikes. Some didn't dare to go home because they were scared of being assailed by some group.

Mrs. Tulp: [5.34]
I can do better justice to the lower levels when similar levels are grouped

together. In heterogeneous whole-class conversations, these pupils tend to clam up when they realize that many better students are more articulate. So in discussion, they get less 'air time'. In the first year, this doesn't matter so much; in second year, they become more aware, and in third year, they're taunted because of their different level: 'ah, one of these country-bumpkins.' 'One of those kitchen maids.'

The fragments show students may have a negative attitude towards various kinds of differences, which may eventually escalate to bullying and exclusion from the group.

5.5 A Practice-Based Perspective on the Imitation Tendency

Our material and the literature on the imitation tendency showed that in classes containing diverse learners (which is the case for any class), there is an imitation tendency at work between students. Doyle has argued that classroom settings have distinctive properties which affect participants regardless of how students are organized for learning or the teacher's educational philosophy. One of these properties is 'publicness': events are often witnessed by a large portion of the students. "Each child can normally see how the others are treated" (Lortie, 1975, p. 70, see Doyle (1986). Our material shows that this 'seeing of other students' evokes the imitation process.

When talking about teaching diverse learners, our material leads us to take the following points into consideration:

- 1) The imitation tendency causes individuals to be influenced by a group process that affects the learning process. When talking about teaching diverse learners, we should not think of a number of autonomous and rational students who exchange ideas; our material leads us to be aware that these students might (unconsciously) be directed by group processes. (See *Hiding questions or problems* on page 86 and *Deliberately scoring lower* on page 87.)
- 2) The imitation tendency may support learning (*Imitation supporting the intended learning process*. on page 83) but the negative aspects of imitation show that the imitation tendency may also divert students from the intended learning process (*Imitation not supporting the intended learning process*. on page 86 through page 91). Students who do not ask questions or who deliberately score lower obviously 'learn' how to belong to a group. This, however, does not particularly concern the kind of learning process

that the teacher intended to induce. Our material supports the assumption that 'the social' supports learning but it shows that 'the social' does not automatically support the *intended* learning process.

- 3) Our material shows that the imitation tendency may be accompanied by (aggressive) rivalries and derogation that may even result in bullying and exclusion from the group (*A derogative attitude towards high achievers* on page 89, *A derogative attitude towards low achievers and showing off* on page 90 and *A derogative attitude towards students who otherwise differ* on page 91). Of the nine teachers who referred to the positive aspects of imitation, seven also reported about negative aspects of social comparison, including aggression and behavior that seems to arise out of fear for aggression (*Hiding questions or problems* on page 86 through *A derogative attitude towards students who otherwise differ* on page 91). The aggressive aspects of 'the social' are very likely to *arise from* the positive aspects. A brilliant performance may make others envious (which may encourage learning, and/or encourage aggressive remarks); a stupid remark may give others the feeling of ability. This shows that the positive aspects of the imitation tendency may not be easily separable from the negative aspects and implies that room for diversity in classrooms is not self-evident.

Summing up, our material leads us to state that the imitation tendency supports learning but this does not automatically occur peacefully, nor does this automatically concern the intended learning process.

Chapter 5
The Imitation Tendency Among Students

6

Dealing with the Imitation Tendency Among Students

This chapter starts from the assumption that in classes, an 'imitation tendency' is at work. This tendency means that students imitate other students. It also means that rivalries may occur as soon as somebody does not have 'the same' as others. This chapter describes how the room for addressing diversity is affected by the way in which the imitation tendency manifests itself. It explains why some teachers feel forced to reinforce the uniformity pressure and why other teachers can address diversity by 'using' the imitation tendency. We conclude that teaching diverse learners is much more complex than described so far in the literature. It requires the embracing of a paradox between individuality and communality.

6.1 Introduction¹

This chapter focuses on how teachers deal with the imitation tendency. In doing so, we build on the data, the literature and the findings of the previous chapter. There, we showed that in classes containing diverse learners (which is the case for any class, including the so-called homogeneous classes), there is an imitation tendency at work between students:

- 1) The imitation tendency induces individuals to be influenced by a group process that affects the individual learning process.
- 2) The imitation tendency may support the learning process but does not automatically support the *intended* learning process.
- 3) The imitation tendency may be accompanied by (aggressive) rivalries and derogation that may even result in bullying and exclusion from the group.

1. An adaptation of this chapter has been submitted to Teachers College Record.

In this chapter, we focus on how the room for teachers to address diversity is affected by the way in which the imitation tendency manifests itself.

6.2 Literature: Dealing with the Imitation Tendency

As we showed in the previous chapter, many theories focus on the importance of imitation for learning. Most of them, however, restrict themselves to the positive consequences of the imitation tendency. Very little literature has been written on how to deal with the possibility of rivalry that may occur as a result of the imitation tendency. Cohen addressed the importance of status treatment (Cohen (1986; Cohen & Lotan, 1995). Apart from her, Girard elaborated on how to deal with, or how to prevent the adverse consequences of the imitation tendency.

Girard considers ways of 'differentiation' as necessary to prevent mimetic rivalries from becoming aggressive. Civilization is a process in which mankind advances in canalizing mimetic rivalries in less aggressive ways, Girard believes (see Tijmes, 1985). Within 'cultures' the spheres of influence of the different participants are defined. 'Culture' consists of norms, institutions, and structures that regulate rivalries and thus curtail mimetic violence (Girard, 1993). A grown up, for instance, has a different role than a child. Two children can easily become rivals, which may result in aggression; rivalry between child and grown up may also occur but because of the different role that the grown up is supposed to play within the culture, this rivalry is less likely to become violent as easily as it may occur between two equals. The delimitation of spheres of influence (and roles) keeps possible antagonists apart.²

An important example of an institution that regulates mimetic violence, as Girard stressed, is the society of justice. Without an administration of justice, a (simple) conflict is likely to lead to a circle of revenge and contra-revenge. A society of justice avoids such a circle by the verdict of a third party that has no need for revenge because it is not involved in the conflict. All cultures have developed some kind of 'differentiation'. Salovey (1991) pointed out that traditional cultures developed rituals and other protective devices to inhibit behavior that might arouse envy.

When existing ways of differentiation are absent or do not suffice any more, 'uniformity' — Girard calls it 'indifferentiation' — may occur, but he stresses

2. We found it interesting that also the system therapy stresses the importance of a clear definition of the position of the various subsystems or holons in order to enable growth and flexibility within the system (Minuchin & Fishman, 1983; Haley, 1963).

that a community in which indifferenciation occurs is likely to be intensely divided by rivalries, while ways of curtailing its aggression are not available. Other than Festinger, Girard does not believe that uniformity establishes social quiescence. Even in seemingly uniform situations, people will always find objects to cause rivalry.

This literature was important in finding, ordering, and making sense of the fragments about the way in which teachers deal with the imitation tendency.

6.2.1 *Research question.*

The present chapter concentrates on how teachers of diverse learners deal with the imitation tendency between students. It describes how the manner in which the imitation tendency manifests itself, affects a teacher's room for taking diversity into account. The results of our study contribute to a practice-based perspective on teaching diverse learners.

Our research question is formulated both in an active sense (as if the teacher deals with the imitation tendency) and in a passive sense (as if the imitation tendency manifests itself in certain ways that affect the teacher). Our material required both ways of looking.

6.3 Methodology

We collected all the fragments concerning dealing with the imitation tendency. These fragments have been ordered into six categories, which occurred as follows. The literature on the imitation tendency offered some notions on dealing with the imitation tendency. This alerted us to look at our stories in a particular way and to see that certain topics were relevant. Starting from this topic, we examined all interviews and collected the information concerning this topic, which formed a category. When relevant, the literature we used is rendered when describing the categories. Other categories were developed by starting from salient excerpts (showing either very little, or more room for diversity), or from remarkable extremes concerning the room for diversity that affected the way in which teachers dealt with the imitation tendency. From these examples, we derived a topic. Starting from this topic, we examined all interviews in order to learn about the experience of other teachers concerning this topic, thus creating a category.

Some fragments gave rise to the question of who was dealing with whom: was it the teachers who were dealing with the imitation tendency, or was it the imitation tendency dealing with the teacher? Moreover, the categories (to some

extent) overlap each other. For instance, the category ‘Do’s and don’ts’ refers to norms but it doesn’t do so exclusively since the other categories are also norm-related. The same goes for the teacher’s attitude. The categories, however, are only a first step in structuring a large body of very diverse stories in the process of determining a more complete ordering of the material. As such, they are not part of our practice-based perspective on teaching diverse learners. Instead, they serve to demonstrate the existence of a spectrum showing either little or more room for addressing diversity.

Some fragments are used in more than one category. This occurs because they are multi-dimensional and can be viewed from different angles.

6.4 Results: Teachers’ Perspectives on Dealing with the Imitation Tendency

We interviewed 25 teachers. Of these 25 teachers, 23 spontaneously referred to the imitation tendency among students, while 2 did not refer to this tendency at all. Of the remaining 23, 20 teachers addressed the imitation tendency in terms of the way in which they dealt with it. Thus, 5 teachers out of the 25 did not explicitly address dealing with the imitation tendency, although 3 teachers out of this group of 5 did refer to the imitation tendency as such. (The distribution is shown in Fig. 6.1.)

In this chapter, we will often focus on ‘the room for addressing diversity’. This does not indicate that we prefer an individualized way of dealing with diversity (also called customization, adaptive education or internal differentiation) as opposed to an integrated way of dealing with diversity.

In the context of teaching, it is important to realize that aggressive rivalries threaten classroom order. Avoiding chaos is a prerequisite to instruction, something to get out of the way so that teaching can occur (Doyle, 1986 p. 394). Rival-

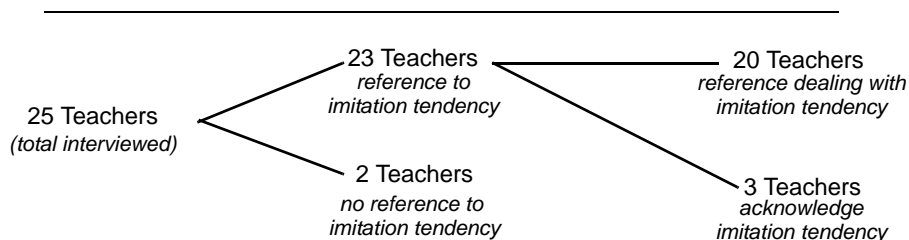


Figure 6.1: Distribution of references to the imitation tendency.

ries, thus, are likely to increase the already permanently existing pressure on teachers to maintain order.

6.4.1 Six categories about dealing with the uniformity pressure.

The following six categories were developed:

- 1) Using protocols.
- 2) Support by teachers to help low achievers.
- 3) Involving students in the learning process of others.
- 4) Do's and don'ts.
- 5) Implementing and supporting school policy.
- 6) The personality of the teachers (as a (role) model).

Each is discussed in the following sub-sections.

Using Protocols.

Girard's analysis implies that ways of 'differentiation' are necessary to regulate rivalries. Examples of such ways are protocols such as 'turn by turn' or 'the majority wins'. School life is based on protocols that indicate which ways of working are 'normal'. Most protocols are habitual and hardly ever discussed. According to a protocol often used, all students are assigned the same work. Other protocols regulate how different work is assigned, for instance, by using a diagnostic test. Such tests determine if students are given a revision assignment, or — if successfully completed — an in-depth assignment. The outcome of the use of such protocols may be that students do not do 'the same' work, however, if 'the same' protocol has been applied to all students, they all have been treated in 'the same' way, and protests are less likely. So the protocol 'regulates' the rivalries that may result from the imitation tendency.

In the following section, we show how protocols function. Some teachers use a protocol that prescribes a uniform learning trajectory, other teachers use a protocol that allows variations on a common learning trajectory. The fragments are presented in order of increasing room for addressing diversity.

Undermined, non-protocol-based customization. When students are used to a protocol in which everybody follows the same learning trajectory, tensions and protests are likely to occur when the teacher incidentally acknowledges diversity, for instance, by assigning different work.

Mr. Messen: [6.1]

Of course, it is extremely difficult to say: 'Guys, I am going to assign homework. For you stupid ones, do this homework; for you clever kids, do that

homework.' You obviously cannot do that. So the homework is this and that. They are told to do their best. If some can't complete parts well, that's the way it goes. Of course, I could give the bright ones an extra book to take home with them, or say that they have to do the puzzle that is further down. I could do that, but I won't. They all hate doing homework, you see. So what you get is: 'Oh, that's not fair, now we have to read books and they don't have to.'

Mrs. Tulp: [6.2]

Certain pupils get extra material or have material added to what they have to learn from a more difficult method. They are given it individually. But they often find it very annoying when they have to do something extra. In the textbook I formerly used, it is built into the method: they work out the basic material, check it, and do the diagnostic test in which it is determined what items have to be done by way of revision or deepening. There, doing extra things is simply much more natural. If they are now given extra material and don't feel like it, they say: 'I don't understand it.'

Apparently, when students are used to the same learning trajectory for everybody, they experience customization as 'unfair'. These protests undermine the customization itself.

Protocol-based customization with tensions between different groups. As Mrs. Tulp experienced (quote 6.2), a protocol that establishes variations on a common learning trajectory helps making dealing with diversity 'more natural'. Therefore, teachers only succeed in establishing customization when using a protocol. Nevertheless, customization may put the students of the lower trajectory in a less favorable position. Therefore various teachers have *all* students do at least some in-depth material.

Mr. Siebelink: [6.3]

I want all the pupils to do in-depth material. I want to avoid that a pupil who spends all of his time on revision work, suddenly realizes: 'Hey! Siebelink is moving on to the next subject' right at the point that he wants to do in-depth material. You give them extra time to do some of it, albeit a little less. That is emotionally important for the children. They often consider it a positive assessment if they can do this. I don't emphasize it, but that's how they experience it. If they are not allowed to do it, it's upsetting.

Mr. Veling: [6.4]

The children with the revision assignments are in a corner where they feel unhappy. I mean: 'Oh, I'm stupid, I have to do these stinking revision exercises, I prefer to do in-depth.' So you have to stimulate them to do this

revision as fast as possible.

Out of the six teachers who use a diagnostic test to assign either revision or in-depth material, four teachers make sure that all students do (at least some) extra material. What they actually do is to reduce the customized protocol to a more uniform protocol. They do not do so because all students have 'the same size of suit', but because it is 'emotionally important' for them to wear the same suit as others; they feel 'unhappy' in their own suit. Allowing students to do in-depth material needs not to be wrong, but the fact that this occurs for 'emotional' reasons shows that there is an imitation tendency at work that interferes with the notion of adaptive (customized) education. Therefore, some teachers need to check accurately whether everybody has done his or her basic material and/or their revision exercises. (It needs not be the case that doing extra material is favorite; it also occurs that extra material is viewed as extra work. Therefore, it often occurs that doing extra material is required in order to be admitted to a higher stream.)

If Mr. Veling always applies the protocol in the same way, variations on the common learning trajectory become 'standard', as he explains:

Mr. Veling: [6.5]

If they are all treated the same way — there are people who are able to do more than others — then they think this is standard. If I start making exceptions, then I am guilty of special behavior, then I am wrong. But in fact I say: 'This is biology. We'll do it in this way.' So to them, that is normal.

Mr. Veling shows that a teacher needs some degree of determination to establish a customized protocol.

Protocol based differentiation with less tensions. Sometimes the establishment of different learning trajectories is perceived as 'fair' and 'just'.

Mrs. Koning: [6.6]

I've got a little boy who was such a failure, it was simply pathetic. He failed everything. It really was tough. He is now working with an individual method that is very simple. This allows him to work independently, with a little help from me every now and then. He is extremely happy with this approach. He is in seventh heaven. I make little tests for him, and at his level he scores a pass. He does not feel disadvantaged with respect to the other children. I have explained to him that next year there may be other pupils who work from a different book, and he likes that.

A situation in which everybody is respected and can yet be different is the ideal situation. It is unclear, however, if this excerpt represents an ideal situation.

The boy works alone; he may lack others with whom he can identify. We notice, too, that the teacher says to this boy that next year there might be other students who work in 'the same' way as he does, which puts the 'extreme happiness' of this boy about his present situation in perspective. Nevertheless, it seems that the different positions in the group do not result in a status difference. This, however, may also imply that other students have ceased comparing themselves with this boy; the boy is probably not really taken seriously.

Conclusions about using protocols and the room for addressing diversity. We conclude that because of the imitation tendency, non-protocol based variations on the common learning trajectories cause tension and protests that undermine the addressing of diversity. A protocol assigns everybody a 'fair' position; nevertheless, these 'fair' positions are not perceived as equally favorable.

At the lowest position of the spectrum of room for diversity, teachers are directed by this pressure and bring back the different learning trajectories accommodated by the protocol to a more uniform learning trajectory for all students. At a higher position, the teachers overcome the pressure towards uniformity by holding on to the protocol. Due to the protocol, it becomes natural that some students do different things than others. However, the different learning trajectories are not perceived as being equally favorable. At the position which allows the most room for diversity, a protocol accommodating different learning trajectories is perceived to be appropriate and 'just'. It is unclear, however, whether such an ideal situation ever occurs in classes.

Support by teachers to help low achievers.

The support individual teachers give to individual students to help achieve 'the same' satisfactory results as others can be viewed as a way of dealing with the imitation tendency. Our analysis shows, however, that this is only the case when satisfactory results are the object of imitation. If other objects are desired (such as popularity), helping these students based on presumed other goals may put them in an unfavorable position.

Refraining from individual help to avoid an unfavorable position. Some teachers experience that low achievers prefer to be treated in the same way as other students, which implies that they don't appreciate extra support. This frustrates teachers in their attempt to address the diversity in the class.

Mrs. Wolf:

[6.7]

A weak pupil can sometimes find it a nuisance when I drop by. He will say: 'Is that you again? What are you doing here? I haven't gotten that far yet.' Or: 'I

know what I'm supposed to be doing. Just go!' There are also pupils who find it very pleasant when I come and sit next to them. But most of them feel they are being watched. Or they will say: 'If I don't understand it, I'll ask my neighbor.'

Such reactions may motivate the teacher below to refrain from offering individual help.

Mr. Dorrestein: [6.8]

If anyone gives a wrong answer, I'll sometimes leaf back to an earlier exercise. But mostly you don't do that for a particular pupil because that makes him, ... then he becomes so important and his error almost ..., his error will be blown up out of all proportion, you see. So I consider it nice if he gets some extra turns on that subject, but together with other pupils. For if he is examined alone for three minutes, I don't think he will feel all that good. It differs from pupil to pupil, but I sometimes fear that if you make it too conspicuous, the children will tend to think: 'I'm not going to ask any more questions, because then it'll be me answering them for five minutes, while the rest ...' This makes it all the more normal that somebody doesn't know an answer... You should not deal with it too individually. Keep it in the group. Make sure that the others also take part.

By stressing that things should be as 'normal' as possible, Mr. Dorrestein indicates that he understands that a uniformity pressure is at work. He does not want to put students in an unfavorable position. Therefore, he avoids individual treatment.

Supporting students to achieve a more favorable position. Other teachers experience that refraining from offering individual help puts their students in an unfavorable position.

Mrs. Van Dijk: [6.9]

If you don't do this (i.e., give extra help to weak pupils), the stigma gets greater, since you are allowing them to go down the drain.

Sometimes I say to a pupil who has scored a fail a number of times: 'Just do your homework properly, because I just might ask you to come to the front of the class.' Then they really start boning up on it, and will even sometimes also score 100% on such an oral test. Well, that really gives a kick.

Students appreciate the support that is intended to help them 'also' scoring 100%, which shows that in Mrs. Van Dijk's class also, a uniformity pressure is at work. In her class, however, high scores are objects of imitation.

Conclusion about individual support and room for addressing diversity. In classrooms, it is not self-evident that teachers experience room to address diver-

sity. Whether this room exists, depends on the way in which students give meaning to the situation.

At the lower end of the spectrum, there is little room for supporting individuals. Teachers comply to an unstatuted law (which is, however, expressed by students) that differential support is inappropriate. They reinforce the uniformity pressure. Somewhere at the middle of the spectrum, teachers resist the uniformity pressure: individual help is offered but not always appreciated by students. Students indicate they want to be 'treated in the same way' as other students, which apparently is more important for them than 'getting the same results' as others. At the part of the spectrum in which the most room for addressing diversity occurs, giving individual support complies with the common desire of the class to get 'the same good results' as others, which shows that good students are models. In such a situation, teachers can use the imitation tendency. *Why* the imitation tendency is oriented towards the learning process does not become clear from our material.

Involving students in the learning process of others.

Because classrooms are public (Doyle, 1986), regardless of teaching strategy, student involvement in the learning process is visible and may function as a model. The models in the class mediate the learning attitude of others, which may support the learning process. Good students, however, may also cause irritation and resentment.

Refraining from actively involving students as models or help. As Girard explained, a cooperative atmosphere between students of different levels does not occur naturally. This would be the case only if students were rational individuals who were willing to share their expertise with others, but as Girard stressed, this portrayal of human nature is romantic: imitation is often accompanied by envy, which may disturb classroom order. This may complicate the involvement of students in the learning process of others, in whole class situations as well as in small group. Some teachers refrain from actively involving students as model or help, for it puts students in an unfavorable position.

Mr. Dorrestein:

[6.10]

You should make sure that it's not always the good pupils who are raising their hands. They are indeed very good and they enjoy showing that they are doing well, but at the end of the day, it's counterproductive. It doesn't stimulate the other pupils either. If it's always the same..., they will only irritate other pupils, like: him again, or she again. That's not much use. Than it's better to have no

hands raised at all.

Girard also explained that good students are not necessarily models. Other objects, such as 'being so smart as to have others do the work' may be mediated by students, which may be accompanied by the exclusion of good students. Therefore, some teachers are critical about cooperative learning.

Mr. Langen: [6.11]

The idea (behind our policy to create heterogeneous groups) was for them to learn to appreciate each other's capacities. Each small group consisted of pupils from one of the four streams. That was set up with a lot of enthusiasm. It seemed to be going nicely, but looking back, it turned out not to be very successful. In the beginning, things weren't too bad: the children helped each other because, after all, that's what they had been used to at primary school. But there came a moment when the better pupils wanted more and more and were no longer willing to wait for those stupid low level students anymore. These "stupid" children were not at all that stupid: they soon found out that if you just waited a second, the better children would solve the problem in a jiffy, and all that was left for them to do was write down the answer. So until Christmas, we had a good time, and afterwards the better children did the assignments and children from the lowest stream just copied it. So that simply did not work.

Mr. Schipper: [6.12]

It usually turns out to be only partly true that cooperation in small groups helps the less capable pupil. The less talented ones, for example, leaned heavily on what has been done by the others. They did not really dive into the material, no, they just allowed it to happen. It did not increase their interest. They just profited from the work being done by others and did not join in themselves.

These teachers hesitate to involve good students in the learning process of others (for instance, by implementing group work) because they have experienced that this puts some students in an unfavorable position: good students, for instance, cause irritation or are used by other students to do the work. This (sometimes) motivates these teachers to refrain from actively involving students in the learning process of students of different levels.

Involving students as models or help. In order to influence the learning process of others, some teachers deliberately involve (good) students. When their motivation and/or capacities becomes visible, these students may drag other students along in the right direction. This occurs in whole class situations as well as in small group situations.

Mrs. Vogel: [6.13]

If you can think up a few things that the kids like, then I think that this can stimulate the whole class — they will all want to participate.

Mrs. Akkermans: [6.14]

Some children fail to pick things up, even if they have worked through an assignment and filled out everything. They cannot really reproduce it; they have not really digested the information. Therefore, it's very useful to include whole class moments at which you exchange thoughts together. In class conversations, you notice that some children really need to hear it from each other before they can handle it themselves. That way they learn from each other, think along with each other.

Mrs. Van Dijk: [6.15]

One is a faster reader than another or has a better pronunciation. But that makes it so nice for two people to work together in small groups. At our school, the twosomes or foursomes are composed in such a way that weak and strong pupils are grouped together. So it isn't as if the strong pupils search each other out, and all the weak ones, too. Then it doesn't work with a little dialogue: a weak pupil can't handle that. Now it is done by the weak and strong pupils together. The strong pupil improves and really helps the weak one. That's the way it works best. It is quite a clever system. It is quite satisfactory.

Mr. Bogaard: [6.16]

While you are walking around giving hints & help, you sometimes see the raised hand of somebody who is a little less fast — the term 'weak ones' I always consider a bit weak. I will sometimes put a very good one next to somebody like that: 'Please explain how this works.' In a class where the atmosphere is pleasant, there's no reason not to do this.

These teachers, thus, involve students in order to be models (and even helps) to others. They 'use' the imitation tendency.

Conclusions about (not) involving students and the room for diversity. The way in which students give meaning to the situation is essential in the room that teachers experience to involve individual students. At the position on the spectrum which allows the least room for addressing diversity, teachers (sometimes) forbid student involvement such as raising hands to avoid resentment and irritation. They, thus, reinforce the uniformity pressure. Obviously, students with a positive learning attitude aren't models. At the position in which more room for diversity occurs, there is room for the teacher to deliberately use the talents of the good students for the benefit of the whole class. Teachers can 'use' the imitation

tendency: low achievers learn from high achievers, which indicates that high achievers are models. Our material indicates *that* in some classes, the good students are the models, while this is not the case in other classes. However, our material does not reveal *why*.

Do's and don'ts.

The imitation tendency may jeopardize the learning climate in two ways: it may cause students to imitate undesirable behavior of other students, and it may also cause students to imitate initially desirable behavior, which, however, leads to rivalries that are accompanied by equally undesirable aggression. Both ways threaten a safe learning climate. Do's and don'ts play a role in preventing the imitation tendency from undermining the learning climate. They, thus, are ways of dealing with the imitation tendency.

Inhibition of 'valuable' behavior for the sake of the learning climate. Some do's and don'ts are not based on values but are solely meant to prevent rivalry.

Mr. Dorrestein: [6.17]

You should make sure that it's not always the good pupils who are raising their hands. Because they are indeed very good and they enjoy showing that they are doing well, but at the end of the day, it's counter productive. It doesn't stimulate the other pupils either. If it's always the same..., they will only irritate other pupils, like: him again, or she again. That's not much use. Than it's better to have no hands raised at all.

Salovey (1991) pointed out that traditional cultures developed rituals and other protective devices to inhibit behavior that might arouse envy. Such rules are 'taboos' in the sense that their are not based on a human value; their sole purpose is to inhibit envy. Mr. Dorrestein's inhibition of raising hands is a taboo because this don't is not based on something valuable but inhibits something valuable.

The following teacher understands that because of the imitation tendency, the education of a group requires different rules than the education of individuals.

Mr. Bloem: [6.18]

Motivation should come from the inside. As a teacher, you can stimulate it by praising the student. If that doesn't work, you can try to motivate the students by playing power games. But this results in artificial motivation, which only makes sense because it allows one to keep the class processes going. If a pupil lacks internal motivation, you should really say: 'OK, if you're not interested, that's your business, but you have to face the consequences.' But in a

classroom, you can't allow any pupil to cut corners. Because if he doesn't need to do it, why should I? So then you play the power card: you don't want to, I do want you to, and if you don't, I'll punish you. It's really an admission of weakness, but that is something you can't avoid in a group.

If Mr. Bloem would only have to deal with individuals, he could have allowed these individuals not to work and face the consequences. This pedagogical strategy (in itself valuable), however, is not appropriate in groups, because it is likely to influence other students in the wrong direction. Therefore, the rule is that students should do their work. Thus, because of the imitation tendency, some valuable pedagogical strategies are inappropriate.

Teaching do's and don'ts because human values are violated. Most of the time, the rules in the classroom are intended to protect human values.

Mrs. Gerhard: [6.19]

Last year, my first-year class had big fights involving a lot of swearing: 'You clodhopper', or 'nasty Turk', or 'city miss' or things like that. There was a lot of clique forming, complete with gossiping, backbiting, stirring up trouble, and wrecking bikes. Some didn't dare to go home because they were scared of being assailed by the group.

I've devoted three or four lessons to their quarrels and mutual needling. I think they've been successful, to a degree, but every now and then I notice that it has not completely disappeared. If it continues, I say: 'OK, if I see this again, I'll come down on you like a ton of bricks.'

Mr. Veling: [6.20]

Words like "egghead" and "nerd" do occur. You hear them early in the year. It is something I try to stamp out by turning the tables on the kids who say them: 'In the same way that you run somebody down because he's good, you can run down somebody because he is bad. So I could say, for example, that you are a nitwit...?'

During mentor lessons, they get assignments where they are forced to cooperate. You pair up a bright pupil with one who's less bright and they have to work together for a change. They must sit next to each other. The good ones are obligated to help the lesser ones. I have them sit next to each other for one lesson, and they have to tolerate each other's presence and capacities for once. For it's easy to yell through the classroom that someone is a nerd, but when you sit next to him, you may find out that he has to work pretty hard, too.

These excerpts show that teachers try to protect human values against the forces that come about as a result of the imitation tendency, which is a tough job.

The teacher's authority may be necessary to protect students from the aggression of others.

Teaching do's and don'ts before human values have been violated. Some stories suggest that the teacher has more grip on his or her students. This does not mean that they can always avoid playing the power game, nevertheless, some moral order seems to exist to which the teacher refers.

Mr. Bogaard: [6.21]

Sometimes I have a little chat with these guys. One is good at this and the other is good at that. For example, you have pupils who have a way with language, and another who's an ace in history. We have to accept that from each other. One is a very fast runner. He can use that talent without saying to somebody else: you jerk, can't you run any faster? You have to do your best with what you've been given. In fact, that's what's expected of all of us. Not to the greater honor of yourself, but simply because it's the right thing. That's the whole point. So guys, don't say to others 'oh, you have a six, that's not bad for you.' It's very discouraging to have a good pupil say 'a six, not bad for you.'

Mrs. Van Dijk: [6.22]

I guess that at our school, the students are really trained, more or less, that we are all in this together. There are differences: there are slow pupils, smart ones, not so smart ones, but they are in their class together and they will have to put up with one another. Everyone has their qualities, and the weak pupil is worth just as much as this strong pupil. We make no distinctions between pupils' qualities as human beings. It's the mentor's task to drive this home to the children: 'You're all classmates together with different abilities, but this doesn't allow you to judge each other as human beings in the sense of "you're a weak pupil so you're worth less or something." "Drive home" may be a little too strong, but in the mentor classes we do pay attention to things like this, certainly at the beginning of the year. For the children this isn't a problem at all because it is a continuation of the way things were for them at primary school. I have learned that it is possible for children to be grouped heterogeneously in a classroom and still form a unity as a class, without mutual discrimination, and where weak pupils are taken as seriously as the good pupils. One time you're more successful than another, but what I do know is that those prejudices that say that this is impossible are totally unfounded.

In contrast to the quotes in the previous section, the latter two teachers do not refer to situations in which things have gotten out of hand. Apparently before problems arise, the (team of) teachers have started to teach basic human values.

They address differences openly *before* the imitation tendency has caused troubles, which may contribute to the development of some moral order. In this way, these teachers seem to be, or at least try to be 'ahead' of the uniformity pressure.

Conclusions about do's and don'ts and the room for diversity. The purpose of all do's and don'ts mentioned here is to establish a climate in which learning can take place. At the position at which the least amount of room for diversity occurs, taboos make differences as inconspicuous as possible: teachers inhibit valuable behavior to prevent envious reactions. At a position at which more diversity occurs, do's and don'ts are based on values that are introduced to regulate rivalries between students. This does not always come across. Sanctions are necessary to protect students from the aggression of others or to prevent that negative behavior spreads around the class. At the position at which the most room for diversity occurs, differences are openly discussed before things get out of hand, which may contribute to a moral order. Teachers try to be 'ahead' of the uniformity pressure. Our fragments, however, do not indicate what constitutes the room to discuss differences openly.

Implementing and supporting school policy.

This paragraph shows how the policy of schools affects the way in which the imitation tendency manifests itself, or perhaps the other way round: how the way in which the imitation tendency manifests itself affects the school policy. Teacher's references to school policy, such as the composition of classes or grading policies, often contain an (implicit) view of dealing with (the consequences) of the imitation tendency.

Because of rivalries, different students are separated into different classes.

Assuming that teacher expectations affect student achievement, educational experts have encouraged (and still do) the policy of the integration of all streams. At Mr. Langen's school, this policy was adopted. Heterogeneous classes were introduced in which all four streams were represented and labels such as 'high achiever' and 'low achiever' were avoided.

Mr. Langen: [6.23]

We don't like to pigeon-hole too quickly. The idea was: in heterogeneous classes, your past performance would not really matter. That was a historic blunder. In our group, we denied the presence of heterogeneity. That's what it all came down to: simply ignore the differences and pretend they don't exist. Naturally, that does not work.

So we got this situation at school where we had a so-called heterogeneous class

with only a few 'lost smart kids' mixed in. That's really a bad idea: to have three or four kids who are twice as fast as the others. They are happy at first: 'Boy, this is a breeze'. They soon discover, however, that the rest of the class doesn't appreciate this attitude, and will gang up on them. At the end, you'll literally find them drawn back in a corner. Whatever you try, you can't avoid that. It's socially unmanageable.

We had to acknowledge that this was going terribly wrong. The idea was that pupils would learn to value each other whatever their capacities. Well, it just wasn't happening. So we said 'This is not on.' In the end, we have had to accept that we couldn't handle it. The kids had accepted this a lot sooner: some are bright and some are thick. Everyone knows that, don't they?

Because of the rivalries, as Mr. Langen explain, his school decided to abolish heterogeneous classes. Abolishing heterogeneity, as Mr. Langen's story shows, is a questionable way of getting rid of escalating resentment and derogation: after having made classes more homogeneous, animosities did not disappear. Currently, classes at Mr. Langen's school are denoted by heterogeneous-sounding names, but they contain less differences in performance than some 'homogeneous' groups. Apparently unaware that he also used the animosities between students to demonstrate why full heterogeneity did not work, Mr. Langen now mentions that aggressive rivalries are a problem in his present, much less heterogeneous class.

Mr. Langen: [6.24]

Look, those few smart kids in the class have strong character; they ignore the others and get their eights and nines. But this girl happened to be highly sensitive to the rest of the crowd, so at the very first jeer, she deflated. This made life very difficult for her because B4 is a tough class; you've got to keep your back straight or you have no life. And she couldn't do that. At some point, I could see her results going downhill rapidly. So I contacted her mentor, and, as it turned out, I wasn't the only one who said: 'Can't I get this girl put in B5? That's a quiet class, good work climate. It's OK to get good marks there.' The child was transferred and is scoring top grades.

Separating the high achievers from low achievers, as at first occurred by the abolishing of heterogeneity, is thus continued in a far less heterogeneous class. Mr. Langen, however, also indicates that (more important than the width of heterogeneity?) it is the direction of the imitation tendency that defines whether it is 'OK to get good marks'.

Later on in this chapter, we will discuss whether the number of streams represented in a class affects the direction of the imitation tendency.

Integration of students while trying to hide differences. When one class integrates two or more streams, schools face the problem that the variation between the ability of students increases: the difference in performance becomes bigger and comparison of grades can be painful. Therefore, at Mr. Heerma's school 'balls' are assigned instead of grades.

Mr. Heerma: [6.25]

Parents say to me: 'Why can't our child just get a normal mark, like a 7.5 or a 3 or a 9.2?' That's impossible because that would mean that top level students get nines and tens all the time and that intermediate pupils, who work very hard to study the same material, take a lot of trouble to get fives. So marks are out of the question because the marking system is homogeneous. You can't have that in a heterogeneous class, so if you want to teach heterogeneous groups, you must adapt the entire reporting and marking system.

The 'balls-system' is an attempt to hide the differences. Like grades, however, it also rests on the calibration of performance. Therefore, it does not really succeed in hiding the differences.

Other schools grade effort rather than achievement — a way of diverting the focus from ability to effort. This enables all the students to get 'the same' good results as others, provided that they are willing to work equally hard. This grading policy, thus, is an attempt of 'using' the imitation tendency, while trying to hide the differences in ability that cannot be changed easily. The imitation tendency, however, may have different objects. Students do not only compare each other's grades, they also compare the 'objective' quality of each others work, which results in (painful) questions about why somebody has more mistakes but a higher grade.

Mrs. Wolf: [6.26]

It takes a while before you get to know pupils in terms of their level. For example, sometimes I think a pupil is lazy, but this needn't be the case: it may just take a little while before you find out that this pupil is not lazy at all. Or you think a pupil is doing his utmost while he's actually lazy. When they've been in my class for two years, I'm on a pretty good footing with them. In the course of time, I have apparently been able to make clear to them why they get unsatisfactory marks. So they stop complaining, 'They have unsatisfactory marks too, but I have many more correct answers. So how come I have an unsatisfactory mark?'

Thus, some schools try to make the differences in ability less visible. These differences, however, are not easily masked.

Integration while discussing differences openly. Some schools acknowledge that differences between students exist and should be discussed openly. Their policy starts from the assumption that although the one student performs better than the other, they are both worth the same. This message is communicated at different branches of the school.

Mrs. Van Dijk: [6.27]

At our school, pairs or groups of four are combinations of strong and weak pupils. When composing student groups, the mentor explains that everyone is expected to help each other. I also ask this of them and explain it to them. By doing this, you make a slightly stronger appeal to the pupils' social feelings and you also make an appeal to the weaker pupils to ask questions and say when they don't understand something. I never really noticed that weaker pupils were discriminated against because of this. These children are so used to having to cope with differences, it's sort of built into the system.

Mr. De Hond [6.28]

You may have a situation where one child has a 70% score for the basic material and a 20% score for the extra material, and the child sitting next to him has 90-80. That's the problem with this system: if you give all of them the same test, one will get much better scores than the other. But I don't think it's a good idea to pair up pupils with similar levels. The idea at this school is that pupils should learn to help each other. And it happens, too, you know, it really does happen.

As Mr. De Hond shows, the situation is not completely free from tensions; nevertheless, he believes it is possible to 'use' the imitation tendency in the sense that low achievers learn from high achievers.

Conclusions about school policy and the room for diversity in classes. We conclude that at the position on the spectrum which allows the least room for addressing diversity, school policy establishes separation of high and low achievers because the different groups do not get along; mimetic rivalries are likely to dominate the atmosphere in the class. In this way, school policy reinforces the uniformity pressure. Further from the edge, school policy supports the integration of different streams and at the same time, hides the differences, for instance by the way in which grading takes place. At the position which allows the most room for diversity, school policy of integration fosters a culture in which differences are confronted head on, in the class as well as in mentor lessons. At this position on

the spectrum, the teacher can 'use' the imitation tendency. Our material did not clarify how such situations can be enabled.

The personality of the teacher (as a (role) model).

The way in which teachers deal with the imitation tendency reflects their personality.

Being afraid of differences. Some teachers are afraid of diversity. Mr. Dorrestein, (whose class contains an intermediate and a higher-intermediate stream), does not feel at ease when observing low achievers.

Mr. Dorrestein: [6.29]

In-class heterogeneity is acceptable if you don't find yourself breaking out in a cold sweat when you're correcting a weaker pupil's work. As long as this weak one isn't raising his hand all the time, nothing's the matter. Something's wrong when I start thinking: 'I don't dare to ask that weak one a question anymore, because who knows what he's going to say?'

"Breaking out in a cold sweat" refers to fear. Fear of differences is reflected throughout Mr. Dorrestein's story, also in the context of teacher burnout. He refrains from addressing differences because he knows that differences cause rivalries that jeopardize his own position.

Trying to neutralize rivalries. Other teachers try to regulate rivalries between students, for instance by taking the victim's part. In doing so, they run the risk of getting caught in the circle of aggression.

Mr. Veling: [6.30]

Words like "egghead" and "nerd" do occur. You hear them early in the year. It is something I try to stamp out by turning the tables on the kids who say them: 'In the same way that you run somebody down because he's good, you can run down somebody because he is bad. So I could say, for example, that you are a nitwit...?'

Some also realize they should not get carried away by the rivalries in the class.

Mrs. Wolf: [6.31]

Since the differences are so enormous, pupils must be confident that nobody is going to be ridiculed for being able or unable to keep pace. If I were to poke fun at a pupil's answer, this pupil wouldn't dare to say or write down anything anymore.

To neutralize envious remarks, some teachers praise the results of high achievers.

Mrs. Vogel: [6.32]

Sometimes comments are made like: 'I'll bet you got another nine, well, what a surprise!' In our section, we now feel it's OK for a 10 to be rewarded. It sometimes used to be that a ten was for the highbrows, but we as teachers now have decided that it's all right for somebody with a 10 to be rewarded. We don't brush it under the carpet, so if somebody has a 10, we say: 'A 10 is excellent.'

To protect low achievers, however, Mrs. Vogel feels she should hide their results.

Mrs. Vogel: [6.33]

Sometimes I notice that the class criticizes pupils who score a 3 or thereabouts. But I tend not to be too vocal about these things. When I hand back their tests, I never put their marks on it, just the number of errors. Then we look at it together, and I'll tell them what the norm is. So I don't read out: 'She has a 3, he has a 2', I never do that. They put it on their test sheets themselves.

Some teachers, thus try to neutralize the rivalries, by taking the victims' part, by hiding differences, or by distancing themselves from the group process.

Resisting the uniformity pressure. Other teachers seem to be stronger than the uniformity pressure.

Mr. Bogaard: [6.34]

I will sometimes put a very good kid next to somebody else: 'Please explain how this works.' In a class where the atmosphere is pleasant, there's no reason not to do this.

I can say without hesitation that a teacher's authority is a very important factor. A teacher's competence is, too. You also have to have the guts, you see. At a certain moment, I say: 'You, help him or her out, do this or that.' You have to dare to do that.

The last sentence, 'you have to dare to do that' is telling, as well as the fact that the atmosphere in the class must (first) be pleasant.

Mrs. Van Dijk tries to be a model in appreciating diversity and in doing so, she counteracts the uniformity pressure.

Mrs. Van Dijk: [6.35]

Each child is different, and these differences must be borne in mind when you deal with them. With one pupil, for example, you may say things like 'Hey, why don't you switch on the old turbo-engine and start doing something.' With another pupil, I will be quieter, more modest, perhaps even more civilized if that's the child's background. You deal with children differently, but that is realistic in my view because you can say more to one child than to another. You

don't adopt a tough attitude towards a very sensitive child because that just won't work. But with these children, say the future lower intermediate pupils, this jovial, tough tone is just right. Another friendly jab in the arm will keep such a child going for some time. It has quite an encouraging effect. And cracking jokes and jibes, of course. Of course, you're also cheerful and companionable to pupils who are more the studying type, but perhaps in a quieter, more subdued manner.

As was also demonstrated by Mrs. Van Dijk's previous quotes, she is creative in addressing diversity and consciously displays an attitude of helpfulness.

If you as a teacher don't want to make an extra effort for a weak pupil, why should the other pupils do so?

Mrs. Van Dijk, thus, tries to be a model of somebody of a helpful person who appreciates differences. However, although a lot of room for addressing diversity seems to exist in her class, she sometimes chooses to let differences disappear in the group.

Mrs. Van Dijk:

[6.36]

If a pupil scores nothing but 4's, I sometimes give him an easy written test. I give it to the whole class, of course, to avoid stigmatization.

Obviously, although Mrs. Van Dijk seems to be strong enough to resist the uniformity pressure, this pressure has not been conquered completely. Some degree of tension remains.

Conclusions about the personality of the teacher and the room for diversity.
We conclude that at the position which allows the least amount of room for addressing diversity, the teachers fear differences; they are afraid of possible rivalries between students. Therefore, they reinforce the uniformity pressure. Somewhere in the middle, the teachers try to neutralize the rivalries between students. At the highest position, the teachers seem to be stronger than the uniformity pressure. They don't obey its laws by making diversity visible. However, some tension remains.

6.5 A Practice-Based Perspective on Dealing with the Imitation Tendency

When reflecting on the excerpts, we conclude that all six categories have the following characteristics in common.

All categories show a spectrum with varying room for addressing diversity.

All six categories can be placed across a spectrum with varying room for addressing diversity. At one end of the spectrum, teachers are directed by the uniformity pressure. 'Dealing with the imitation tendency' entails the prevention of mimetic rivalries by reinforcing uniformity. In this way, teachers try to protect students and themselves from (aggressive) mimetic rivalries that, among other things, threaten classroom order. They avoid and hide differences, sometimes by establishing taboos, do not attend to individuals, use protocols that accommodate uniformity, and are personally afraid of differences *not* because they are prejudiced but because they have experienced that differences cause problems between students. In their classes, there is little room for diversity. An example of a teacher at the lower end of the spectrum is Mr. Dorrestein (see quotes 6.8, 6.10, 6.17, 6.29).

Somewhere in the middle of the spectrum, teachers do not reinforce the uniformity pressure *per se*, but struggle to regulate the mimetic rivalries between students. They teach students to respect differences but this does not always come across. They attend to problems of individual students but find that this is not always appreciated. Although they know that differences may cause trouble, they also observe that students benefit from the example of good students. In some cases, they think it wise to hide differences; in other cases — depending on the atmosphere in the class — they try not to get carried away by the group processes in the class. An example of a teacher in this position is Mr. Veling (quotes 6.4, 6.5, 6.20, 6.30).

At the next stage, teachers (sometimes) have the possibility of 'using' the imitation tendency, because it manifests itself in such a way that it supports the learning process. Students learn from the good example of other students while rivalries do not dominate. There may be a tension between different groups but this tension does not dominate the atmosphere in the class. Therefore the teacher can 'use' the talents in the class. He or she discusses differences openly and seems to be successful in conveying an attitude of mutual respect. Thus, the teacher seems to be 'stronger' than the uniformity pressure. At the same time, the teacher remains aware that differences may cause rivalries (or stigmas). An example of a teacher at this position is Mrs. Van Dijk (quotes 6.9, 6.15, 6.22, 6.27, 6.35, 6.36).

Teachers have different, but valid truths.

Our material shows that teachers who reinforce the uniformity pressure don't do so because they are particularly fond of uniformity, but because they observe that

differences cause (aggressive) rivalries between students. For instance, students protest when they do not get the same tasks (quote 6.1, 6.2), they start calling names when others have different results (quote 6.19, 6.20, 6.32, 6.33), do not appreciate being treated differently by the teacher (quote 6.7). Our study, thus, shows *these teachers' fear of rivalries is real*. Knowing that order is a prerequisite for instruction and learning (Doyle, 1986), they reinforce the uniformity pressure because they want to avoid chaos. These teachers are in good company: Festinger also assumed that uniformity would establish social quiescence.

At the middle of the spectrum, it is salient that teachers have tried out various teaching strategies that are successful at higher ends: they tried to involve students (quotes 6.11 and 6.12), to attend to individual students (quote 6.7), they tried out heterogeneous classes (quote 6.23), or they tried to teach students to accept each others as individuals (quote 6.19 and 6.20). Although they implemented the same teaching strategy as the teachers at the higher end of the spectrum, they did not reach a situation in which they could use the imitation tendency with the same effectiveness as the teachers at the higher end. The experiences of teachers at the higher positions on the spectrum who 'use' the imitation tendency — for instance, the experience that heterogeneity helps addressing diversity — are simply *not true* for the teachers at the lower ends and in the middle of the spectrum. With 'true', we refer to the teachers' convictions that are based on their own practical experiences and, thus, on an empirical process. The spectrum, thus, consists of different positions at which different 'truths' are valid.

Therefore, it is clear that it does not make sense to collect the strategies that are successful at higher positions on the spectrum and present them to the teachers at the lower ends with the advice to do likewise. The teachers in the middle of the spectrum have tried out the strategies of those at the higher end. These strategies, however, did not have the intended effects.

This shows that it is not the teaching strategy per se that 'causes' some sort of learning process. Apparently, there is some underlying factor that influences the way in which the teaching strategy affects the learning process. Involving students, implementing heterogeneous classes and attending to individual students apparently are not the *cause* of room for addressing diversity, but are likely to be effective when room for diversity *already exists*. The question is: what is this underlying factor.

The way in which students give meaning to the situation is essential.

Our material showed that in some classes, students want to belong to the group by being treated in the same way as others, while in other classes, students want to belong to the group by achieving the same positive results as others. The way in which students give meaning to the situation is essential and is closely related to their *relation* with others: whether low achievers are ‘dragged along’ by high achievers depends on their relation with high achievers: it depends on whether students, who desire to learn the material, are models for others and, thus, on whether the imitation tendency is oriented towards the learning process. Our material shows that the direction of the imitation tendency is essential for the classroom events that take place. Our fragments — particularly those of the teachers in the middle of the spectrum — also show that the direction of the imitation tendency is essential in whether a certain teaching format works and in whether the composition of the class is likely to contribute to student learning.

Teachers, obviously, do not decree the way in which students give meaning to the classroom situation. This, however, does not imply that they have no influence over this situation. The question, thus, is whether a teacher can encourage a situation in which the imitation tendency is oriented towards the learning process.

6.5.1 *What constitutes room for addressing diversity.*

Most of the teachers experience positive as well as negative aspects of the imitation tendency (see previous chapter), however, some teachers very often observe positive effects of the imitation tendency, while others hardly ever experience positive effects. This may indicate that the way in which students give meaning to the situation can be influenced. Below, we consider several ways of influencing the direction of the imitation tendency.

Does the width of heterogeneity affect the room for addressing diversity?

Since disturbing rivalries occur as a result of differences, the assumption seems appealing that less heterogeneity will reduce the rivalries. We showed that one school abolished heterogeneous classes for this reason ([6.23] on page 110). This school is in good company, for even Festinger assumed that uniformity would establish social quiescence.

We checked the amount of streams represented in the classes of the teachers who scored either high or low on the spectrum. Although the broadness of heterogeneity seems to be a relevant factor for many other aspects of teaching

diverse learners, our material does not offer grounds to believe that homogeneity reduces the extent to which the imitation tendency is likely to deviate from the intended learning process. At both extremes of our spectrum, we found teachers with broad heterogeneous classes (4 streams) and narrow heterogeneous classes (2 streams). Our material, moreover, contained an example showing that separating the low achievers from the high achievers does not orient the imitation towards the learning process, nor guarantees that rivalries do not occur (see quote 6.24). This concurs with Girard's view that rivalry is not likely to stop: even in 'homogeneous' situations, people are inclined to search for objects to rival about. In this respect, Girard disagrees with Festinger, who believes that uniformity creates social quiescence.

As far as we can determine, the number of streams represented in teachers' classes is not related to whether the imitation tendency is oriented towards the intended learning process. This does not imply that the width of heterogeneity would never affect the (direction of) the imitation tendency³.

Does the literature on bullying offer strategies to curtail rivalries?

There are several interesting parallels between the mimetic theory of Girard and the literature on bullying. Some experts on bullying, such as Van der Meer⁴, refer to Girard's theory (Van der Meer, 2003). Similar to Girard's theory, the literature on bullying describes a sequence from aggression to bullying to victimization/scapegoating. It shows that students who are somehow 'different' are more likely to become victims of bullying (Van der Meer, 1988).

Bullying is a widespread problem, affecting large populations (Smith & Morita, 1999; Roland & Munthe, 1989). Rigby and Slee (1999) found that in Australia, half of the students between 8 and 12 indicated that they personally needed help to stop being bullied. Hazler, Hoover & Oliver (1991) and Hoover, Oliver & Hazler, (1992) found that, in the USA, approximately 75% of students reported being bullied by their peers at some time over the course of their

-
3. Deliberately scoring lower to belong to the (average of) group could be less serious in less heterogeneous classes.
 4. Interestingly, the literature about bullying presents stories similar to those our teachers presented. The Dutch expert on bullying, Bob van der Meer, a former teacher, once found a student howling outside of class. She told him being bullied by others. After an extensive discussion with the class, the other students admitted to bullying this girl, but maintained it was her own fault, because she was a zealot: she wanted to get high grades. This triggered Van der Meer's interest in bullying. He called one of his books 'The scapegoat in the class' (1988).

schooling (Harachi, Catalano & Hawkins, 1999). The Dutch Inspection of Education reported that because of bullying, one out of six students does not feel safe at school (Inspectie, 1999). The fact that bullying is so widespread and occurs so often, shows that is romantic to view bullying as exceptional. The large figures show that Girard may be right when criticizing those theories that portray humans as being peaceful and rational.

The growing attention for bullying, however, has yielded strategies for dealing with bullying. These strategies could be useful for dealing with rivalries that occur as a result of the imitation tendency. Olweus, an international expert on bullying, however, reports that the proliferation of “approaches/methods” for dealing with bully/victim problems has resulted in grandiose claims about effectiveness, but basically no scientific evidence to support these claims (Olweus 1999, p. 24). This, by no means implies that we should reconcile ourselves to the fact that bullying occurs. It, however, indicates that there are no quick fixes for curtailing aggressive rivalries so far.

6.5.2 *Sophisticated management and the direction of the imitation tendency.*

A confrontation with the literature on classroom management, in particular Doyle’s contribution (1986) yielded interesting parallels with the practice-based perspective we developed so far, thus shedding light on how teachers may influence the direction of the imitation tendency.

Doyle states that life in a classroom begins with the creation of a work system and the setting of rules and procedures to hold the system in place. Order is fragile; it can easily be disrupted by mistakes, intrusion, and unpredictable events. Teachers devote a considerable amount of energy to this process. As for the degree of order that prevails in a class for the duration of a school term, the quality of rule setting is important, even at the secondary level.

Order is a prerequisite for teaching and learning. This, obviously, is what teachers feel too. Reinforcing the uniformity pressure is intended to create order. It, thus, should be viewed as a management strategy.

A study of the views of some teachers from the perspective of the classroom management literature, however, shows that these teachers must have more sophisticated ways of dealing with the imitation tendency: they supervise the group and constantly watch conduct or behavior of students, often several things at the same time, with particular attention to discrepancies from the intended program. This is necessary because, as Doyle (1986) asserts, misbehavior is likely to become *contagious*, that is, ‘capable of spreading rapidly or drag-

ging other members of the class along'. (The concept 'contagion' is also essential in Girardian theory). Therefore, good managers who are keen observers, notice misbehavior early, before it spreads across the room. They take rapid action and thus reduce the need for reprimands (Kounin, 1970). To prevent that the manager's action to correct misbehavior distracts the students and to encourage that their attention remains focused on the learning process, the actions of the manager occur as inconspicuously as possible (Kounin, 1970; Merritt, 1982; Doyle, 1986). Good managers, thus, cut off the path towards disorder not primarily by reinforcing uniformity, but by watching individual behavior. In the words of the mimetic hypothesis: good managers continuously pay attention to individual behavior, thus preventing that individuals set an example that may distract others from learning. In this way, they contribute to orienting the imitation tendency towards the learning process.

If enough positive resources are present in the class (that is, students who mediate the desire to learn) and if teachers are successful in preventing misbehavior, the good behavior gets more of a chance to manifest itself and it may become contagious. Models of good behavior drag others along. In the words of Merritt (1982): once centered, the 'vector of learning' pulls events and participants along its course. Sophisticated managers, thus, while trying to control the aggressive aspects of rivalries and digression from the learning process, encourage a situations of positive modelling by students. In this way, they contribute to orienting the imitation tendency towards the learning process.

This sheds light on why some teachers experience that they can 'use' the imitation tendency (quotes 6.13, 6.14, 6.15, 6.16, 6.28, 6.27). When the teacher has the authority to control a great deal of the aggressive by-products of mimetic rivalries, students have no reason to hesitate to ask for help. When learning has become a common desire, the support of teachers is likely to be appreciated by students; students are likely to remain at work while the teacher helps individual students. If learning has become a common desire, students that perform well or come to another student's aid are unlikely to be excluded. In this way, a situation arises in which 'the positive reinforces the positive'. Sophisticated management is at the basis of such a situation but it may look like as if keeping order hardly occurs.

Doyle stressed that classroom order is jointly enacted by teachers and students. "Teachers obviously play a key role in initiating and sustaining classroom activities. Nevertheless, students contribute in substantial ways to the quality of order that prevails in any classroom" (Doyle, 1986 p. 424, see also Erickson &

Shultz, 1981). The wider community around the class, moreover, also mediates the desire of students in the class. This implies that a sophisticated manager can contribute a lot to the direction of the imitation tendency, but even the most sophisticated teacher can find him or herself in a situation in which he or she does not manage to create a situation in which the common desire in the class is oriented towards the intended learning process. This is expressed in our stories by teachers who stress that they are not equally successful in all classes (see, for instance, quote 6.16, 6.22).

The fact that classroom management is jointly enacted shows that classroom management is not a technique that 'works' if applied in the right way. Order is a co-construction of students and teacher together. Likewise, a situation in which learning has become a common desire is a co-construction of students and teacher (and the rest of society) as well.

We also note that the kind of sophisticated classroom management needed entails more than just instrumental reason. It regards personal qualities such as the creation of a warm, supportive relationship and authority. As Jones (1996) put it, a combination of a caring attitude with a controlling attitude. According to Hemmings (2003, p. 417), authority is 'crucial for meeting the formal goals of schooling'. She refers to Durkheim (1956, p. 9) who said that, 'liberty is the daughter of authority properly understood'. Lascaris (1982,1983), moreover, stressed that creativity is needed to escape from the circles of aggression (in which teachers easily get caught when neutralizing the aggression of students). This complies with our findings so far: teachers at the highest position on the spectrum are supportive leaders with courage, authority, warmth and creativity. Their personality matters.

A situation in which the imitation tendency is oriented towards the intended learning process, thus, cannot be 'produced' easily. Nevertheless, such a common desire to learn is likely to constitute a situation in which the teacher can 'use' the imitation tendency. Sophisticated classroom management and positive resources are likely to contribute to the development of such a situation⁵.

5. As for small groups, Cohen (1995) stressed the need of 'status treatment' to encourage equal participation during groupwork. This can be viewed as a management intervention. Likewise, Slavin's (1990) requisite structuring of cooperative learning, such as that it must be structured with incentives that motivate cooperation and a sharing of the goal structure, can be viewed as necessary (management) strategies to orient the imitation tendency towards the intended learning process.

6.5.3 Conclusion: rating the quality of dealing with the imitation tendency.

Our analysis shows that it is naive to assume that teaching diverse learners is just a matter of assigning ‘customized’ work. This would only be the case if students were rational and autonomous individuals. Because of the imitation tendency, addressing diversity implies the embracing of the *paradox between individuality and communality*: to be able to address individuality, teachers must take group processes into account; at the same time, in order to contribute to a viable group process, they must take individuality into account. Because of the uniformity pressure, however, a tension is likely to remain between different groups or between an individual and the rest of the group.

Low-end teachers only acknowledge one pole of the paradox. They either only acknowledge communality by reinforcing the uniformity pressure or they only acknowledge individuality while ignoring the effects of the group on the learning of individuals. (In the previous chapter, we mentioned that 23 teachers spontaneously referred to social processes between students, but that one of the remaining two was primarily dedicated to checking whether individual students had done their work and did not concentrate on social processes between students). High-end teachers embrace the paradox between individuality and communality. They do so by being a sophisticated classroom manager: teachers who use the positive resources in the class, their personal qualities, such as warmth, creativity and authority, and their observation and organizational skills to contribute to a situation in which the imitation tendency is oriented towards the learning process.

Because of group processes that inevitably take place, thus, both poles should be acknowledged.

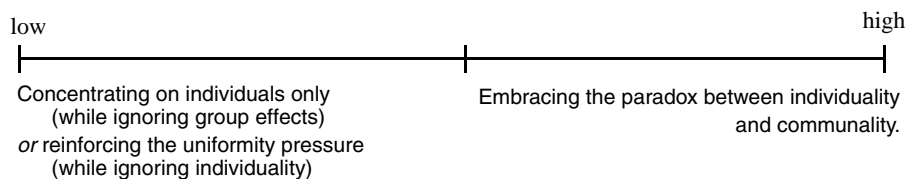


Figure 6.2: Rating the quality of dealing with the imitation tendency on a spectrum.

6.6 Recommendations

For future research and the development of expertise, we recommend that the following implications of our analysis be taken into consideration.

Theorists should become more aware of their portrayal of human nature.

Innovative theories advocating student self-direction, group work or inclusion in a community in which everyone is respected, presuppose a (most favorable) situation in which the imitation tendency is oriented towards the learning process. This is a corollary of the fact that these theories start from a rational-individualistic portrayal of human nature; therefore, they presuppose the existence of room for diversity. Even theories that stress the importance of social interaction often apply a rational-individualistic portrayal of man in that they ignore aspects such as envy, jealousy, arrogance and derogation. Girard is correct when complaining that many modern theories fail to acknowledge the gregarious and aggressive aspects of mankind. As a consequence, these theories are romantic. To close the gap between theory and practice, we recommend that educational theorists become more aware of their portrayal of mankind, and acknowledge the tendency to suppress mankind's darker side.

A good learning environment is based on values.

Our theory developed above shows that the learning process partly *depends* on the social climate in the class; therefore, it shows that teaching subject content (in Dutch: *onderwijs*) cannot be separated from character building and moral development (in Dutch: *opvoeding*). Many people assume that school is for learning subject matter, while home is for character building and moral development. Dodde (1992) pointed out that the schools' task should be limited to the transfer of knowledge and *knowledge about* value systems. Other researchers suggest that taxpayers can or should determine the dosage in which content matter and values are taught (Barneveld, 2002).

Our study showed that this compartmentalization of different educational aspects presupposes a reality that hardly exists in schools. A work system in which there is room for diversity does not occur naturally. Instead, rivalries occur naturally; they are likely to end in aggression that frustrate the learning process. Without education in the moral sense, the imitation tendency chokes up in chaos. In such a situation, there is little learning of subject content any more.

Limiting the task of the teacher to the transfer and development of knowledge is only possible when students have internalized some basic human values. Ulti-

mately, 'room for diversity' in communities is constituted by the ability of all its participants to retain the value of something (for instance, high achievement), while those who don't have this are not considered to be inferior. This is a paradox. Teachers can only leave moral education alone when their students are able to embrace this paradox.

As long as the students are not 'mature' enough to support such an attitude themselves, an educator is needed who 'keeps order': who prevents mimetic rivalries from becoming aggressive. This requires structures, protocols, role models and the personality (authority) of the teacher to motivate students to adhere to values that create a peaceful learning community. The learning of these values is not primarily a cognitive process. Research shows that establishing a 'work system' (including the rules of conduct) is necessary each year, although it is unlikely that children learn anything new when they encounter rules on the first day of school (Blumenfeld et al., 1983; Florio & Schultz, 1979; Lecompte, 1980; Wallat & Green, 1979; Doyle, 1986). Students who know the rules for creating a safe learning community yet need an educator to help them implement these rules. A learning community of immature participants in which there is room for diversity requires (sophisticated) classroom management, which helps students behaving according to some basic human values⁶. Teachers simply cannot afford concentrating on subject-matter only. As Langeveld (1968 p. 78) put it, 'children depend on (moral) education'⁷.

Dodde, however, believes that schools are ill-equipped to aim at a change of behavior and mentality, because a close relationship between teacher and students is often lacking. This, however, underlines the necessity of creating a school system that — to the benefit of the learning of subject matter! — enables more intense relationships between students and teachers. Moral education is an intrinsic aspect of education that cannot be separated from the teaching of subject content. There is a deep wisdom in the fact that the English language (other

6. By 'basic' human values, we refer to values such as respect, justice, solidarity, honesty and responsibility, the ability to accept one's own personality and to grant others their own individuality. 'Basic' refers to the fact that we consider those values to be essential in creating a peaceful community. These values are not 'basic' in the sense that they are equally prevalent in all cultures. Ghetto-cultures, for instance, generally adhere to the law of the jungle. Thus, the values that we consider to be 'basic' correspond better with some cultures or philosophies of life than with other cultures or philosophies of life. The creation of a learning community with room for diversity, thus, is value-related and requires a specific kind of moral education.

7. In Dutch: *het kind is op opvoeding aangewezen* (see Lodewijks-Frencken, 1994).

than Dutch) acknowledges only one word 'education' to refer to both aspects (see also Miedema, 2003).

Human frailty should not be passed unto the shoulders of teachers.

In the literature, the lack of room for (addressing) diversity is often framed in terms of the unwillingness of teachers to adjust their 'preferred' mode of instruction to accommodate differences and in terms of their incorrect ideas on race, sex, and social class (see, for instance, Pohan & Aguilar, 2001). Our study showed that even if teacher beliefs about diversity are 'right', room for diversity is not self-evident. Room for diversity in communities occurs when its participants are not envious or jealous, refrain from dominating others, and acknowledge their own and others' individuality. If teachers are held responsible for the fact that such a situation is not common, human frailty is passed unto the shoulders of teachers, which creates a burden to which teachers will finally succumb.

A causal-deterministic model does not apply.

Our study showed that the resources in the class and the way in which students give meaning are essential for the classroom events that actually take place. One strategy does not have one given effect, but the way in which a strategy works out depends on the way in which students give meaning to it. What works in one class does not automatically work in another class. A causal-deterministic framework — on which most research is predicated — does not apply to many aspects of education. Although the personality of teachers, their knowledge and skills matter, teachers do not unilaterally determine the learning process of students. Doyle (1986) correctly views education as a joint enactment. The enacted curriculum is a co-construction of teachers, students, their parents and the rest of society together: education does not only form society but society also forms education (see also Schuyt, 2001).

All partners in society have a shared educational responsibility and are jointly responsible for the results of education. Room for diversity, for instance, does not occur naturally in a community, but if some room for diversity can be found in some communities, this can be viewed as a *cultural achievement*.

Outsiders cannot decide about the teaching format.

Our study showed that the way in which students give meaning to the world (in classrooms) affects the way in which a certain teaching strategies works out. Consequently, teachers may experience that complex teaching strategies such as cooperative learning don't work or that they should be alternated with teaching

Chapter 6

Dealing with the Imitation Tendency Among Students

strategies that offer more opportunities for orienting the imitation tendency towards the intended learning process. Complex teaching formats concerning adaptive education are only beneficial when order prevails (Soar and Soar, 1983; Arlin, 1982; Arlin & Webster, 1983; Doyle, 1985, 1986). Therefore, it is not wise to 'demand' that such complex teaching and learning formats be implemented at all times — as, for instance, the Inspection does (Inspectie, 1999). Local factors are important in deciding which teaching format is appropriate. Therefore, such a decision cannot be taken by outsiders. Teachers need the freedom to determine which formats work best at orienting the imitation tendency towards the learning process.

7

An Evaluation of Two Models of Teaching Diverse Learners

How do the perspectives of teachers relate to existing views in the literature about teaching diverse learners? By and large, there are two prototypes of models concerning how teaching diverse learners should occur: one that favors differentiation, and one that favors integration. The perspectives of teachers show that both are essential in addressing diversity: teaching diverse learners implies the embracing of the paradox between differentiation and integration.

7.1 Introduction

In this chapter, we distinguish between two theoretical views of teaching diverse learners: the technocratic-adaptive prototype and the interactive-inclusive prototype. These two views of teaching diverse learners are compared with the perspectives of teachers regarding the teaching of diverse learners. First, we present the two (constructed) theoretical views of teaching diverse learners. These views are intended to summarize the literature. We examine whether these views correspond with the perspectives of teachers (or vice versa), whether the perspectives of teachers make sense, and whether the prototypes need to be adjusted in a way that (elements of) a practice-based perspective on teaching diverse learners can be formulated. In our analysis, we also use our findings from previous chapters.

7.2 Literature: Two Models of Teaching Diverse Learners

In order to stress that diversity in learning should be taken into account, various concepts have been introduced in the literature, for instance, 'adaptive education' (Wang & Walberg, 1985; Terwel 1994), and 'customization' (Reigeluth, 1999) which in the Netherlands, is also called 'internal differentiation' (Nuy, 1981). These concepts indicate that diversity should be addressed by (some degree of)

individualization. While this individualized approach is still current, the perspectives of many authors on the teaching of diverse learners have changed to a more communal approach (Prawat, 1992). Between these two extremes, numerous teaching models can be found in the literature that each have their own characteristics and that are all intended to address diversity (Terwel & Hooch Antink, 1996). From a myriad of different views of teaching diverse learners, we distilled two prototypes that, in our view, represent and summarize the literature on this topic: the 'technocratic-adaptive' view of teaching diverse learners and the 'interactive-inclusive' view of teaching diverse learners. We describe these prototypes by addressing their

- views of the learner;
- views of the role of the teacher;
- views of objectivity, from which the view of assessment is derived.

7.2.1 *The technocratic-adaptive model of teaching diverse learners.*

Reigeluth (1999) motivates the need for individualized and, what he calls 'customized' education by stating that traditional education does not acknowledge the diversity of students sufficiently: students learn at different rates and have different learning needs. Traditional education assumes that all learners can 'walk through the content in the same way'. In his opinion, traditional education is a model of efficiency but not a model for effectiveness. He states that the traditional paradigm was never designed for learning; it was designed for sorting. If the time is held constant for learners who differ, their achievement must vary. While the industrial age needed labourers that could do boring, repetitious tasks, education in the information-based economy should focus on learning instead of sorting, Reigeluth stresses. This implies that time should be allowed to vary: a focus on customization is needed. Learning should be student-directed and teachers should not be a 'sage on the stage' but a 'guide on the side'.

Reigeluth's view concurs with the view of many educational experts in the Netherlands. They stress the need for individualization, customization or adaptive education in primary as well as secondary education (see, for instance, Inspectie, 1997). 'Differentiation' has long been the 'magic word' of educational reform (Govaart, 1989). Presently, the term 'adaptive education' is more current (Terwel, 1994).

We denote this view on addressing diversity with the 'technocratic-adaptive' approach. Characteristics of this approach are:

- *An individualistic view of the learner:* Learning is considered to be an

individual process. Individuals differ. Therefore, education should be adapted to the individual's characteristics.

- *Teacher as 'guide on the side' rather than 'sage on the stage'*. A shift from traditional education to a technocratic-adaptive approach implies a role change for the teacher.
- *Objectivistic view of reality*: The holding of an 'objective' view of pupils by teachers of students is believed to be essential in teaching diverse learners. This view of objectivity supposes a separation between subject and object. 'Objective' assessment of individual characteristics and individual learning results is essential in deciding what individuals need.

To summarize: *The technocratic-adaptive view of teaching diverse learners supposes that the quality of education improves by the implementation of a teaching model in which education is tailored to the objective characteristics of each individual.* Current technocratic-adaptive views of teaching diverse learners often originate from mastery learning (Terwel & Hooch Antink, 1996). In mastery learning, the curriculum is adapted to what an individual is likely to master and, if mastery is achieved, the curriculum moves to an assignment that is one step more complex. The behavioristic learning theory on which mastery learning was based, however, was followed by cognitivism, which acknowledges the inner psychological factors of the learner and stresses that learning is an active, self-regulated process. Students are described as self-regulated to the degree that they are meta-cognitively, motivationally, and behaviorally active participants in their own learning processes. The technocratic-adaptive approach stresses that they should acquire information themselves with the gradually decreasing individual support of the teacher. Therefore, students should be active in the class, which is often taken literally in the sense that students should 'do' things in hands-on activities or should use technology. While helping individuals 'on the side', teachers should adapt instruction to what the individual needs. The kind of instruction that is encouraged, stresses the cognitive and affective strategies that students need to be able to self-regulate their learning processes, rather than the content of the subject-matter itself (Black & Atkin, 1996; Boekaerts, 1992; Boekaerts & Simons, 1992; Schunk, 1996; Shuell, 1986; Shuell, 1988; Reigeluth, 1999; Zimmerman 1989). Founders of the cognitivist approach, in which the technocratic-adaptive view fits, refer to Piaget and Bandura; for instance, Bandura's work on self-efficacy (1982, 1986).

The 'technocratic' in this view refers to the top-down, objectivistic, and individualistic character of this model. 'Top-down', because the model prescribes a certain teaching strategy and a specific role of the teacher. 'Objectivistic', (among other reasons) because individual instruction, the moving to more difficult material, or to a more independent way of learning should be based on knowledge that is usually derived from measurement. The 'adaptive' in this view refers to the adaptation of the curriculum or of the instruction to the individual and his or her foreknowledge, perceptions, and learning style (Terwel, 1994).

7.2.2 *The interactive-inclusive model of teaching diverse learners.*

Another view of teaching diverse learners is also present in the literature. We denote this view by the 'interactive-inclusive' prototype. The interactive-inclusive view is often based on social-constructivism, or what De Corte, Greer, and Verschaffel (1996) called 'the second wave of the cognitivist revolution'. As a reaction to the limited emphasis on affect, context, culture, and history in the first wave, interest in the works of Vygotsky and Dewey evolved. These authors can be considered to be among the founders of the approach in which the interactive-inclusive view fits. Authors such as Cobb and Bowers (1999), Brown (1994), Lampert (1990), Ball (1993), Bielaczyc & Collins (1999), Resnick (1987), and Prawat (1992) built on their insights. Social constructivist views of learning and instruction stress the importance of the acquisition of intellectual skills through the social interaction in a learning community (Scamardalia & Bereiter 1989; Resnick, Levine, & Teasley, 1991; Palincsar, 1998; Rogoff 1991). A central principle of Brown's theory is that 'individual differences be recognized and valued' (p. 9); Cobb & Bowers consider diversity in students' reasoning as a 'resource on which teachers can capitalize' (p. 9).

The interactive-inclusive view has the following characteristics:

- *Social view of the learner*: Social interaction is considered to be essential in learning, especially in the development of higher order skills (Palincsar, 1998).
- *Teacher as activator and integrator*: The teacher is supposed to encourage active learning and be aware that all the students participate in the learning process in their own, different ways. The teacher is expected to 'create a learning community' by integrating all the different contributions of the students towards a common understanding. Stressing the importance of mental activity, the interactive-inclusive approach allows for a greater range of pedagogical styles, including

whole class discussions and direct instruction (Cohen, 1993; Perkins & Unger, 1999).

- *A transactional view of objectivity:* It is acknowledged that people need frames of interpretation to make sense of reality. Such frames are always used, even when 'objective' measurement takes place. Objective measurement is only possible when people agree about the frames of interpretation being necessary. In complex situations - for instance, when creative work must be 'measured' - no unequivocal way of measurement is available. Because there are different frames of interpretation and different cultures, human reality involves different views of reality. Diverse learners have diverse views of reality. A collection of individual contributions offers a multiple perspective. Such a perspective is supposed to enrich the understanding of the whole group.

To summarize: *The interactive-inclusive view of teaching diverse learners supposes that the quality of education improves (and understanding deepens) when a situation is created in which diverse learners interact with each other and express their different perspectives on a valuable topic.*

'Inclusive' refers to the premise that the view of reality of every student should be included in the learning community to arrive at a rich, common, but multiple-perspective understanding. 'Interactive' refers to a social view of learning and the value of active learning, mentally, or literally in the sense of hands-on activities. Inter-action, moreover, is necessary to acknowledge trans-action; in other words, student's frames of interpretation become visible through the explanation of different perspectives during classroom interaction.

A reflection on the prototypes.

The separation between the two prototypes is not as clear as the representation above suggests. The prototypes organize a web of information in an abstract way. Mixes of both prototypes often occur in the literature. Some models, moreover, have recommended a combination of both an adaptive and an integrated phase. Examples of these models are the Basis-Repetition-Enrichment-model and the AGO-model (Terwel, 1986). The differences between cognitivism and social-constructivism and between the first and second waves of the cognitive revolution, moreover, are fluid rather than being distinct. It is, for instance, possible to support the notion of adaptation while rejecting a technocratic view. The historic developments in our field, however, are such that a technocratic and an adaptive view have coincided, as have an inclusive and inter(trans)actional view, too.

When talking about 'integration', we do not refer to the composition of the class but we refer to a teaching strategy: an integration of an individual student into a (smaller or larger) learning community. The pleas for heterogeneous group that preceded the Basisvorming in the Netherlands, were generally *not* accompanied by pleas for the forming of a heterogeneous learning community, but by pleas for internal differentiation or adaptive education. Heterogeneous group and internal differentiation were generally bracketed together (as well as selection into different groups and whole class education). 'Commonality' generally only referred to common goals that would be reached by implementing adaptive education or internal differentiation. The advocates of this line of thought believed in individualistic learning trajectories; they did not recommend using the heterogeneity of the class. Therefore, we consider the supporters of this line of thought as advocates of an integrated *group composition*, but not as advocates of an integrative *teaching strategy*; they belong to the technocratic-adaptive prototype.

It is difficult to make a concise summary of the literature on adaptation because of the way in which concepts are used. The verb 'to adapt' means 'to adjust'. Originally in educational theory 'adaptive education' referred to the adaptation to individual characteristics, as Terwel (1994) defined them: a student's foreknowledge, perceptions, and learning style. This implied a differentiated teaching style. Gradually, however, while cooperative learning got more attention, the meaning of the word adaptation changed. Cooperative learning - which we consider to be something else than 'the adaptation to individual foreknowledge, perceptions, and learning style' - was also denoted by the term adaptive education and hybrid definitions were used. Adaptive education became an 'alternative teaching strategy' with the purpose to 'to increase student achievement', while somewhere in a long definition 'different needs' of students were mentioned. (See Johnson & Johnson's definition on p. 105). Such developments have created a situation in which there is some ground to assert that the supporters of adaptation have generally supported integration too, but it should be added that this is the case thanks to a confusing use of concepts. In this study, we stick to Terwel's definition of adaptive education that corresponds with the literal meaning of the verb 'to adapt': adaptation of curriculum or instruction to individual characteristics.

Although the two prototypes do not render the literature perfectly, we believe they introduce some order of the material. For the purpose of our study, which is primarily the construction of a practice-based perspective, they suffice. At the

same time, we should be aware that the reality is more diffuse than the prototypes suggest.

7.2.3 *Research question.*

Starting from the models mentioned above, we examined the following questions:

- Do the perspectives of the teachers correspond with either of the models?
- If a gap exists, do the perspectives of teachers make sense?
- What can we learn from the perspectives of teachers in evaluating the models?

7.3 Methodology

Our earlier studies started from the stories from the teachers: we formulated patterns that concerned specific topics in all 25 stories and compared these patterns with the literature. Often, the literature motivated us to read the stories again. In the present chapter, we took the opposite approach: we started by referring to the literature (that is, the prototypes presented above) and then read the stories. We did not confront the teachers with the theoretical models, but we collected the remarks in their stories that shed light on the assumptions of either of the prototypes. These remarks were categorized. We also reflected on the nature of the remarks: if a certain remark had only been expressed by one teacher, we analyzed whether this remark could nevertheless refer to a more universal problem experienced by more teachers. Some other remarks clearly reflected the style of a particular group of teachers and, thus, could be categorized into a pattern, but this pattern only referred to a particular group. Along with the patterns presented below, we also mention the number of teachers that refer to each pattern. In examining the nature of the remarks of teachers, we also took the subject, the lesson format, and the number of the integrated streams in their classes into consideration. When relevant, we mention the number of streams in the teacher's class.

When a pattern contradicted (one of) the theoretical prototypes, we analyzed whether the teachers' perspectives were plausible by using reason and other literature. Thus, we evaluated the theoretical prototypes by using practical experience *and* other literature.

Our earlier analysis of the same interviews yielded dimensions on which the perspectives of teachers were rated. On these dimensions, some teachers (the

high-end teachers) appeared to be more sophisticated in teaching diverse learners than others (the low-end teachers). In the present analysis, when relevant, we refer to this assessment of the teachers.

7.4 Dutch Background

Teachers in the Netherlands use textbooks (also called 'the method') that have been developed by teams of teachers (in cooperation with other educational experts) and are issued by publishing companies. Although each teacher implements such a method in his or her own way, the method usually plays an important role in the teaching format that occurs. Therefore, during the interviews, we invited each teacher to reflect on the method he or she used. After the interviews (in which we invited the teacher to describe an average lesson) took place, we examined some of the English methods and the biology methods that are commonly used. These methods give an impression of the kind of activities which occur in classes. All English methods stress speaking, listening, reading, and writing. They start from situations in real life ('in the shop'; 'in the kitchen'; 'an accident') and present dialogues in such situations. At the same time, basic skills (such as forming questions, negotiating, etc.) are presented and students are trained in these skills. As for biology, most methods contain tasks that can be done in small groups or by individuals. These tasks are often questions about the introductory texts, simple experiments, or other 'hands-on' activities, such as making a drawing, filling in graphics, measuring something, filling in a table. In this way, a number of concepts are introduced in a practical way. The daily life of the student is (supposed to be) a natural element in most methods. In various methods, some tasks or texts are marked as 'extra', 'enrichment', or 'rehearsal' material.

7.5 Results: The Perspectives of Teachers Versus the Models

Although we found several examples of addressing diversity that leaned towards either the interactive-inclusive or towards the technocratic-adaptive approach, pure instances of both approaches were not found. At the same time, many teachers apply elements from the adaptive and the inclusive approach during some parts of their lessons. As for the adaptive approach, 11 teachers work with a curriculum of which parts can be adapted to accommodate differences in performance; 17 teachers reported adapting instruction to individual differences which

mainly occurs during student's self-work. As for the interactive-inclusive approach, all teachers regularly have moments in class during which the whole group is (supposed to be) integrated in common activities. Small group work or working in pairs is not uncommon. One teacher comes closest to the interactive-inclusive prototype: her class is fully integrated (it consists of four streams) and students work either in heterogeneous small groups, or participate in common activities. She presented her way of teaching as an alternative to the adaptive approach. When comparing her approach with other teachers' ways of working, however, no principled distinction can be made between her approach and a traditional approach in which teachers implement whole class teaching in (semi-) heterogeneous classes and vary this with group work. Most teachers are not explicit about the learning philosophy they support; one teacher (Mr. Heerma) referred to Vygotsky's theory in the context of the need for dialogue. Other teachers, although not mentioning Vygotsky, also used dialogue.

Below, we render the perspectives of teachers that we found relevant in evaluating the prototypes.

7.5.1 *An adaptive phase is hard to manage.*

Of the eleven teachers who follow a curriculum of which parts can be adapted to accommodate differences in performance, four teachers of English use a Basis-Enrichment model and seven teachers (all of biology) use a basis-repetition-enrichment (BRE) model. We first render the perspectives of the teachers of biology.

These seven biology teachers use a method that has been designed for self-work. After a common period that usually ends with a diagnostic test, students are either assigned repetition material or enrichment material. This implies that, during the adaptive phase, students work on different tasks, often 'hands-on' tasks for which the students need all kinds of materials. As a result, the situation is hard to manage. Therefore, the adaptive phase is only a small part of the curriculum. At most, 1/3 of the curriculum is adapted, while 2/3 is common, and often, the adaptive phase is only 1/5 of the curriculum.

Mr. Veling: [7.1]

The disadvantage of working with this enrichment model is that out of a group of 25 students, you may have as many as 12 or 13 sub-groups. Some students work on their own, others work in groups of two, three, or four — and all of this happens at the same time. So at that moment, you're expected to maintain an overview of everything that is going on in the classroom: that you know where the materials have gone; that you don't give quick answers to questions,

just to be able to move on again. It turns out that you get lost in sensory overload. That in itself is very tiring. In these cases, it depends on the student how much attention he or she gets and how much gets corrected.

Mr. Bloem: [7.2]

If seventeen students are busy with more or less the same things, then you can manage the coaching. But if they're all doing different things... well, I just can't do it. For me, it's like cooking dinner. I do the cooking at home; I can prepare two, three things at the same time, but if I have to do a sauce as well, it'll have to wait until the rest has been done.

All seven teachers of biology who follow a curriculum with an adaptive phase indicated that this phase is hard to manage.

The teachers of English generally agree with the teachers of biology that an adaptive phase is hard to manage.

Mrs. Vogel: [7.3]

At first we tried working with enrichment and the repetition material. You need to have answer cards they can use to check their own work. They come and fetch the cards and then start correcting. Then someone else who had done the enrichment assignment started to correct that. This results in a very unsettled class. You lose an overview of what's going on. You can't help them. They can find the answer on the card, not why the answer is what it is. Later you still have to answer their questions about the assignment — this while other children haven't done that assignment yet.

Our body of interviews contains four teachers of English who use a BE model: some students (incidentally) do extra homework, which they either correct themselves, or which is corrected quickly during class while the others wait. The adaptive phase is shorter and occurs less frequently than that in the biology curriculum. Moreover, in the English curriculum, a lesson format that is primarily based on self-work does not occur. Students often work on written assignments but this is seldom the main part of the lesson. The following teachers explain:

Mrs. Gerhard: [7.4]

A situation in which everyone can work on his or her own seems ideal to me. But doing so when studying languages is difficult because so much is done orally. I don't know how you effectively can do that in practice. I once did a listening test, some of the students were here and some were in another classroom. But then you lose track of the situation. They were working on their own, but I later found they hadn't made much of it. They just don't do enough without supervision.

Mr. Bogaard: [7.5]

You can't let them work with words they don't know how to pronounce. I can't teach the pronunciation of new words to each separate group for each separate assignment; I'd get swamped. So I say, 'Put down your work for a minute, I want to do the new words from these assignments with the whole class'.

Learning English is not only about reading and writing, but also about listening and speaking. These 'audible' elements disturb students who are engaged in other activities. The elements of the lessons that 'make noise', thus, centre the curriculum around the same activities, which reduces the amount of room for adaptive parts.

The perspectives of the teachers of both subjects show that an adaptive phase in the curriculum is hard to manage, either because it is difficult for the teacher to survey the situation or because the different activities of students interfere with each other. This has been overlooked in most studies, as Doyle (1986) also indicated when he noted that in most adaptive studies, the classroom is 'only a shadow'. The few studies that concentrated on the workability of adaptive programs in the classroom indeed showed that highly differentiated systems are difficult to manage (Arlin, 1982; Arlin & Webster, 1983; Doyle, 1986). Research has also shown that achievement typically suffers in classrooms in which there is an emphasis on student choice and the option of moving through the curriculum, and in classrooms in which much time is spent on self-paced learning packets (Rosenshine 1979). Doyle relates this to the management problems that most adaptive programs cause. In most classrooms, Doyle concludes, the conditions that enhance achievement, such as task engagement and accountability, are easier to create by means of group-paced instruction (Doyle, 1985). Treffers (1997) also noted there is a lot of off-task behavior when students work independently in small groups.

We conclude that the teachers' perspectives show that adaptive programs are accompanied by management problems, which is often overlooked in the literature. Doyle's work, the studies he refers to and Treffers' contributions are examples of favorable exceptions in the body of literature.

7.5.2 *Self-work creates room to pay attention to individual students.*

It is important to note that we found no general pattern among the teachers of objection to the implementation of self-work. In the lessons of all the teachers, situations occur in which students do assignments alone or together with other students. Some methods are designed in such a way that the students are given

enough clues to be able to do almost all tasks without the help of the teacher. When such a method is used (which is often the case for biology), the teacher is offered some room to leave his or her position 'on the stage' and be 'a guide on the side'. If the method is not based on self-work (as is the case for English), the teacher has less opportunity to help individuals. Teachers' opinions on self-work and on playing the role of a guide on the side vary from very positive ('I prefer this to whole class teaching') to very negative ('I cannot manage a situation in which I am a guide on the side'). We collected all the arguments for and against the teacher's role as a guide on the side and counted how often they occurred. The argument that the (weaker) students need individual attention or instruction of the teacher was mentioned most often, that is, by 15 teachers.

Mr. Morssink: [7.6]

In my view, helping students individually is much more effective. Particularly with quiet students, I often get the impression that when you explain something at class level, they seem to be dreaming a bit, and you feel they're not really picking up much. These are the students you have to check up on afterwards, to see how much they picked up and to explain things again if they didn't hear all you wanted them to hear.

I guide students and answer questions. Without an individual approach, they can't cope. Or if they can't cope... then it's going to take an incredible amount of time. Then they'll be struggling incredibly at home, and they'll soon lose interest.

Mr. Bloem: [7.7]

If you address the class as a whole, then the teacher is here, and the group of students is over there. You're working with a group, not separately with individuals. Within this group, some will always manifest themselves by making remarks, by asking questions, but quite a number of them will not manifest themselves. They are present, they will pay attention, at least, you hope they will, but that's it. If you work individually, you interact with each student personally. Then you get to know each other better.

Mrs. Tulp: [7.8]

After I've told them something about the new material, they do assignments, theory or practical assignments. They are seated at these tables and I move from table to table. That's the method I like best. When you're in front of the class, what you're telling them has to be so extremely fascinating, and I'm simply not like that. Another colleague who teaches an lower/lower-intermediate-group can do it, he can get very far that way. My strength is that, if I move around the

class, I can see exactly what the problems are. That way, you can find out which assignments tend to confuse students. If you are working at class level, you can't be sure the students really understand all of what's being done. If you move from student to student, you suddenly see the kinds of simple things they already find difficult. Sometimes, they simply don't understand what a sentence means.

Mr. De Hond: [7.9]

We have 40-minute classes, so you really don't have much time, but I always try to walk around the classroom after I've assigned them homework. Now, when they are busy with sentence four but they've gotten the first three sentences wrong, you know they don't understand. In that case, I say to the student, 'Look, try to think of it this way, because this is how it works'. Of course, you can't catch everything this way, but you also can't explain something five times to the whole class when a bunch of students gets it the first time around. At best, those who do understand will only get bored. So that's why you try to help individual students while walking around.

Individual attention is a means of enabling students who are experiencing difficulties to catch up with the rest of the group. It is, thus, a means of integrating students in the group. Other arguments for self-work are that this lesson format "enables teachers to teach students how to plan their work" (2 teachers), "is easier for the teacher" (3 teachers), "fast students can do more" (6 teachers), and "students like to do things together" (4 teachers). Two teachers said that self-work in itself is more motivating; some other teachers, however, stressed that it is not a matter of self-work in itself: when less interesting work is involved, students do not work at all. Therefore, we reckon with a contamination between 'self-work in general' and 'the kind of self-work that the method offers' (which is often interesting because of the hands-on activities).

The perspectives of teachers show that a phase of self-work during class (which occurs more often with biology than with English) enables many teachers (not all) to attend to individuals. Self-work enables the teacher to be a guide on the side during a short, or sometimes longer, period of time. This is useful in integrating individuals in the rest of the class and in building up personal relationships with students. 'Adaptation on the side', thus, often occurs in the context of 'integration', but not in the context of individualized learning trajectories.

7.5.3 *Adaptive teaching is generally superficial.*

It is important to note that teachers can only give individual attention when the rest of the class continues working, which is not to be taken for granted. Seventeen teachers indicated that (adaptive) instruction during group work is often superficial. This pattern is naturally related to the first pattern, namely, that adaptive education is hard to manage. The teacher is never free to concentrate on an individual student only; while instructing an individual, he or she remains responsible for the rest of the class.

Mr. Siebelink: [7.10]

You go to a student. You have to explain something and that takes time. During this time, you can't help three others who are also sitting there with their hands raised, trying to get you to come to them. What I'd like to tell the child I'm working with is: 'This is where you can find it, this is what you should do next', since that saves the most time. If the child says, 'But I don't understand', you try and help as quickly as possible because there is always this feeling of being in a bit of a rush. I can't just sit with him for five minutes and calmly explain things, because you need to move on to the next one. But the children really need those five minutes.

Mrs. Pronk: [7.11]

You apply all sorts of simple things. These kids need to find answers in a block of text. Some can't find them. Since I've been through this text a hundred times or so, I'll say: I'll mark the places where you should look. That really helps them, because then they can complete the assignment just as quickly as those who have to read the entire piece.

Mrs. Gerhard: [7.12]

Not long ago, we did the course 'Keeping All Students Engaged'. You were encouraged to first explain things at class level and then to move around the classroom. I find this very difficult. I find it hard to help students individually when I sense that meanwhile in the classroom things are not going the way I feel they ought to go. I think – and it's probably me! – that if it is noisy, other children will also get distracted easily. These children speak very unclearly. So it takes way too much time to even know what question they are asking. This is not a method that's within my grasp.

Mr. Heerma: [7.13]

You do, of course, keep the class in your peripheral vision.

Mr. Visser: [7.14]

Imagine you tell them, 'Guys, you just continue with that exercise, while I

explain something to student A', and you start to move around the classroom. A large part of the class will get far too little work done. Everyone immediately has a problem and everyone wants your attention. And if you don't give it to them, they'll naturally get that attention from each other. Working on their own is something they can't keep up for long, only about four or five minutes. If you want to help students individually, there is no way you can get to all 18 of them.

Thus, the perspectives of teachers show that adaptive instruction is generally superficial because teachers, while concentrating on an individual student, remain responsible for managing the rest of the class.

When comparing these perspectives with the definition of 'adaptive instruction' — instruction that is tailored to the learning style, foreknowledge and perception — use of this term seems inflated. Boekaerts (1992) assumes that adaptive instruction is accompanied by knowledge about the student's cognitive and affective strategies that students need for self-regulation. Apparently, most teachers do not have enough time to concentrate on such issues. We note also that teachers in Dutch secondary education have many students. Especially full-timer teachers complain that they don't know their students well enough. Some even don't know the students' names. Slavin (1989) also found that, in individualized systems, teachers have little time for individual students.

Although many teachers find some degree of self-work useful (see Pattern 3), education is never completely 'customized'. Treffers (1997, 1997/1998) is correct that customized education actually does not exist in practice. The perspectives of teachers show that the technocratic-adaptive view promises more than it can provide by suggesting that 'customization' of education is possible for all students.

7.5.4 Self-work and the lack of a sense of community.

While self-work in biology commonly occurs, our teachers of English use self-work to a lesser extent. A few teachers of English said that in the past, they used to base their lessons on self-work in order to acknowledge individuality. They, however, reconsidered this since a sense of community was lacking in these lessons. Now, self-work is only a small part of their lessons; a lesson format that is solely based on self-work no longer occurs.

Mrs. Pronk:

[7.15]

We used to work with a method that used worksheets. Everyone worked at their own pace. We used tapes and everyone worked on their own. Well, we didn't

like it at all. For the teacher, it meant a lot of administrative work, and there was no feeling of class spirit, because you never did anything with the whole group. We don't do that anymore. In the past, they used to give up much sooner. It was always a bit like 'Look, this one's only as far as exercise 5 and he's never done anything right, and this one is doing exercise 20 and hasn't made a single mistake'. Now, they simply all join in. We do a lot together.

Mr. Winter: [7.16]

Our school participated in a project where the Basis Repetition Enrichment-model was extensively discussed. We also applied it in actual practice. I really believed in it. But after a few years, I began to dislike the resulting tedium. Now, we have specifically chosen a method that uses pleasant, inviting material, which is geared to the level of the student and which also often provides practical assignments, like filling in a form, or dialogues for specific situations. Then you forget about applying the BRE structures, but what you're doing is much nicer for the student and that improves the atmosphere in the group.

It is organizationally impossible to take differences in level into account with every activity. I'm not so sure it's really necessary, either. From my perspective, a lesson has been quite successful if everyone worked together in a nice atmosphere. That's much more important than saying, 'This child still makes mistakes using the 's' in the third person singular, I have to bear that in mind when I hand out the assignments'.

These teachers stress the importance of 'a feeling of class spirit' and of 'working together in a nice atmosphere'. Their view is in accordance with our analysis in chapter 5 and 6 in which we showed that doing things together — under certain conditions — may have an intrinsic value: students may inspire each other and low achievers may be 'dragged along' by a positive spirit in the group. This conclusion was supported by the notion from the inclusive-interactive approach that learning is a social process.

The perspectives of teachers as well as our earlier analysis show that the technocratic-adaptive approach underestimates the importance of the community of the class. The student is left alone with his or her task and may count on being given some support by the teacher, but lacks the inspiration of doing things together in the whole group. For this reason, Edwards and Mercer (1993) criticized progressive child-centered education that views children as the agents of their own learning, as if they were 'lone organisms' making their own discoveries, rather than cultural participants. Goodson (1998) agrees with this view. He

criticized a pedagogy that is over-dependent on what students do themselves while underemphasizing the role of external challenge and collaboration. The interactive dimension in teaching can aid the development of the pupil's interest in and ideas of areas different from those which he or she might independently explore. These authors support the view of the teachers we quoted above, namely, that an individualized view of education (such as that established by the technocratic-adaptive approach) ignores the value of community.

7.5.5 *Adaptive education as 'better' education in general.*

In the two quotations in the previous paragraph, the teachers refer to former situations in which they were (as Goodson ironically called it) 'consultants' to the students' self-directed enterprise. In the present situation, as their stories show, the students are integrated in the same program and do things together with other students, which demonstrates that (some degree of) integration was possible.

Because adaptive education was considered to be the key of better education, Mrs. Gerhard (her class consists of 2 streams) told that, because of internal differentiation, she was expected to split the class into two groups, while, in her opinion, the students would learn better if they were integrated in the same group. Adaptive education in her opinion, although it was widely recommended, was not cost-effective. At the end of the conversation, the interviewer referred again to the need for internal differentiation. She asked what would be problematic about integrating the two groups. Then, Mrs. Gerhard became emotional:

Mrs. Gerhard: [7.17]

Damn, we have always been pounded with the stance: you've got to take individual differences into account. You always get the feeling that you are not up to the task. Are you now suggesting that it's not necessary?

Mrs. Gerhard's emotional outburst shows that the advocates of internal differentiation ignored Doyle's (1985, p. 101) statement that elaborate systems for adapting instruction might simply be unnecessary. He stressed that the central question in adaptive instruction should shift from 'how can instruction be made more adaptive?' to 'when is adaptation necessary and what are its consequences?' The shift Doyle recommended did not take place in the Netherlands. 'Adaptive education' or 'internal differentiation' is (still) presented as a desired innovation in general, as a hallmark of quality (Inspectie, 1999), without it being asked under which conditions adaptation is necessary. Among other things, this shows that the technocratic-adaptive view fails to understand the value of doing things together and of creating a sense of community.

The attempt to individualize education, moreover, ignores the possible *positive effects of the group* on individual learning as described on page 83: the group may 'drag low achievers along'. Treffers also noticed this. He criticized the one-sided choice of the Inspection for customized education against whole class education. Apart from the fact that it is practically impossible to offer each student 'customized education', close observation of student directed learning format shows a lot of off-task behavior. Learning together is easier than learning alone (Vernooij, 1997/1998; Treffers, 1997). Treffers noticed, moreover, that in international comparisons, the Dutch whole class-based mathematics education lead to high results (Treffers, 1997/1998; Heuvel-Panhuizen, 1997/1998). And Nelissen (1997/1998) concluded that customized, individualized education fails, both as an educational theory and as a pedagogical practice.

7.5.6 *Adaptive education as impersonal education.*

A few teachers seem to be primarily 'managers of instructional material' (Prawat, 1992, p. 10), a role of the teacher that is recommended by the technocratic-adaptive approach. They use a method that is to a relatively large extent based on self-work, while some parts of the curriculum accommodate differences in performance. These teachers give much attention to keeping account of 'objective' information (such as student grades etc.). Although they have implemented the prescription that their role should be 'a guide on the side' rather than a 'sage on the stage' to a relatively large extent, it is striking that their relationship with students seems to be impersonal.

Mr. Schipper: [7.18]

I quite like this system because they don't really need me to explain things. Occasionally they do, but not regularly. You could accuse me of being lazy, but that's not it. Many people are involved in creating a method. They're not stupid; they're experts in education. So now the book's there and you want me to read it to them? Is that how I have to use my energy? Let them do it. The students should do it themselves.

The assignments from the basic-level material are corrected by the students themselves. I have no clear picture of how many mistakes they make there, but in my view, they should keep track of things themselves. When they've gone through the basic-level material, they're supposed to have checked everything. Then, they do a diagnostic test, which I do correct.

Mr. Siebelink: [7.19]

As a teacher – as opposed to being a mentor or coach – you don't have to know

a student through and through to be able to do your work. This is not what the student needs, either. This method contains a system that requires students to repeat very specific components. Because I have them write it all down, I know how they've done. I only have to glance in their notebooks and I know. The result of the diagnostic test is in writing: which enrichment or repetition material needs to be completed. I have them indicate whether they've corrected it. If I had to do that myself, I wouldn't be able to manage. But now they fill it in themselves. Every now and then I have a look and that's enough.

I take eight lessons to treat the basic-level material. By the way, I think this is a problem with this method: they may have finished everything, but as a teacher you can't tell very well whether they've really understood what they've done. They have all the correct answers written in their books, but they've already corrected things using an answer key. It is only later, when they do the diagnostic test, that you know whether they really understand the way the hormone system works.

Mr. Van Boven:

[7.20]

I'm the manager of the lesson. I supervise their studies. And every now and then, I am also the teacher who explains things to them. I quite like that. A disadvantage is that it involves quite a lot of administration. I have a huge folder, containing more administrative tasks than teaching tasks. When they've done the diagnostic test, they correct it themselves. Then they turn in the results. I write down how many mistakes they've made. After a while, I can spot the students that make a lot of mistakes and those who don't. Repetition material has to be done during that same lesson. The rest is homework.

The moment I hand out the diagnostic test, I check the list. Students who have already finished the basic-level material have a plus next to their names. If the basic-level material still hasn't been finished by the time of the test, the student gets a minus next to their name. When they've done the repetition material, I check up on them again. This means that (if the basic-level material had already been done) they get a second plus, or that I add a plus after the initial minus. This means that they did finish the basic-level material, but only after the test. So the repetition material is OK, too. This second plus means that the student can proceed with the enrichment material. A student with two minuses need not hand in any enrichment exercises. Look over there and you'll see a whole pile of exercise books. I've already corrected these. I've also written down the results: how much enrichment material has each student done.

I spend a lot of time managing and that is different from teaching. Every now

and then, all this organizing creates problems. I always need to have everything within reach. Sometimes, they (the materials) need to be put aside because I need room for an experiment for the third-year students. Then everything has to be put back again in time for the first group. Sometimes, that's a bit of a pain. I want them to sit in set places. I always tell them: if yours is one of the names I know, watch out — that's a sure sign things are not going well!

Some other teachers, however, refuse to assume the role of the manager of instructional material.

Mr. Smit: [7.21]

If you completely abolish lecturing in front of the entire class, you're just no longer a teacher but an administrator. You're not explaining concepts, just recording data. You simply sit behind your desk updating files. Well, forget it!

To enable a comparison, we render some excerpts from comments made by some teachers who more explicitly indicate that teachers should also operate in front of the class.

Mrs. Akkermans: [7.22]

What I have learned is how to observe what children are really like. What makes them tick. I'm also interested in how they function socially in a group. What you notice is that children need a compliment and personal attention. That way, you can develop quite a good relationship with the children.

Mr. Langen: [7.23]

You don't have to know things about all the children, but you have to learn to sense who they are. You have to know that you need to approach this particular child calmly, while you need to peer deep into the eyes of that child, and that a third one needs the occasional reprimand. After you've been with these children for a couple of months, you get to know them. Then you have to try to remember these things. It is important not to screw this up. You need to know if their dog died, and when you see them next time, you shouldn't say 'Sorry about your cat', because then you destroy something. It's really very stupid if a thing like that happens to you, so you have to avoid it. Children can sense whether you're really interested.

You've got to discover the line between current behavior and inherent qualities. Whether a student is in some passing strange mood but has a reasonable basic intelligence underneath, or whether he or she is masking their inadequacy by extrovert behavior. If you know a child has enormous problems at home, you tend to go for the former.

The technocratic-adaptive approach focusses all the energy of the teacher on 'objective', 'measurable' characteristics of students. Doyle (1985 p. 99) also observed this. 'In adaptive instruction, students are present in a curiously abstract, even mythical, way. In large measures, they are carriers of aptitudes and abilities, but little attention seems to be paid to their perception of adaptive instruction, their behavior in adaptive programs, or the cognitive strategies and operations they use to navigate academic tasks in these setting'. Although the shift from behaviorism to cognitivism implies that the inner characteristics of students are also acknowledged, cognitivism remains mechanistic by referring to 'knowledge' concerning these inner characteristics (Boekaerts, 1992, p. 392) rather than judging. Answering questions such as 'does the student perform to his or her potential?' requires judgement and, thus, does not fit within a technocratic-objectivistic approach. The technocratic-adaptive approach seems to encourage a curious discrepancy: while the individual is said to be its first priority, the approach is impersonal and superficially emphasizes aspects that are easy to measure. At least, the 'managers of instructional material' quoted above — who to a large extent support the ideals of adaptive education — seem to be impersonal towards their students.

7.5.7 *Compromises in broad streams.*

All the teachers of classes containing four streams, and many of the teachers of classes containing three or two streams, indicated that compromise between the needs of the good students and the weaker students may be necessary. Below, only the teachers who also refer to positive aspects of integration are quoted. This pattern, thus, is not based on the remarks of those who generally complained about heterogeneity as such.

Mrs. Vink (3 streams): [7.24]

I want everyone to understand what I've explained. Say you give them a written test. This shows the results. If most of the class did poorly, I start by explaining the test because simply moving on has little point. This slows down the pace considerably, but I definitely take that time. And the situation wherein you say, 'Stop, those of you who don't understand, too bad', well, it hasn't happened yet.

If things take a lot of time, the better students get terribly bored. I see it happening with two or three children in my class. They're busy with other things. Occasionally, I try to see if they are still with us by asking them a question, but they always answer straightaway. So they can follow things

while they're engaged in something else. They don't disrupt the lesson. I can't change it anyway.

Mrs. Akkermans (2 streams): [7.25]

You've got to make sure in this lower-intermediate class that children who can do a bit more get that opportunity. But this is something they'll do on their own or in pairs, not something you discuss with the whole group. You don't take all the students along with the intermediate stream. Later, when you get to such a class – then, of course, you can do more things at class level – then you can do things more quickly than you did in the previous two years, because then you didn't want to exclude the weaker students.

Mr. De Hond (4 streams): [7.26]

I make a habit of explaining the assignments they have to do for homework very well. I do the first two sentences of every assignment they get in class. That puts them on the right track. Not every one of them needs it, but it's a way to help along the weaker students by giving them some extra explanation. I didn't use to do this. But then, 5 or 6 students would come up to me the following lesson, saying, 'Well I didn't get it'. And they had a perfect right to, because they really didn't understand. But not everyone needs that extra bit of support.

Mrs. Van Dijk (4 streams): [7.27]

The tricky subjects in the first year are the interrogative and negative sentences. You have to repeat them a lot of times, explain them again and again, or practise them in yet another way before they really understand. And then you notice that low level children find it much harder to grasp the principle, to understand when to use an auxiliary and when not. But in my experience, repetition is also useful for those students who do understand. And then you take along the future low level-students. It sometimes happens that very good students adopt an attitude of 'OK, we've heard this before'. I find that difficult to deal with, because I do want to go through this grammar again for the sake of the low level-students.

And then – once you think you've finished the subject – it sometimes happens that there are students who still haven't mastered it all. Yes, and then you have to move on. And then you also leave it at that. Of course, you still try to solve it during the optional class, but some of the students are so weak, they won't understand it whatever you do. You just have to leave it at that.

Should you aim for students at the higher-intermediate or highest levels, you would probably do with a much shorter explanation, less elaborate and a faster pace. But that is not possible in this situation.

Mr. Bogaard (3 streams): [7.28]

You can choose to evaluate a first year's class purely from a cognitive point of view. In that case, a student with great intellectual ability can absorb things faster, and will perhaps be slowed down a little. But life also has other important facets.

It is important to note that most teachers do not conceive of the compromises described above as problematic. They believe that heterogeneity also has advantages.

When these perspectives are compared with the theoretical prototypes, it is obvious that advocates of the technocratic-adaptive view would not be surprised to discover that education that is largely group-based involves compromise, for this is the very reason why this model supports the notion of adaptive education.

In contrast, advocates of the interactive-inclusive view are optimistic about the degree of inclusion that is possible in learning communities, for they primarily believe that diversity increases 'richness'. As the quotations above show, the actual situation is less ideal. Diversity (in these cases) does not manifest itself by a different but valid viewpoint, but by a lack of understanding. The viewpoints of some students do not make sense. This is overlooked by the interactive-inclusive approach.

7.5.8 *The 'motivational power' of content.*

When some students fail to keep up with what is going on in class, diversity generally becomes problematic. When the students are fascinated by what is going on, however, several problems regarding differences seem to decrease and, to some extent, the differences themselves are bridged. Fascination seems to make compromise pleasing and, sometimes, less necessary.

Mr. Veling: [7.29]

I'm a real chatterbox. That, I think, is the power you need to interest a student who has already moved on and who's familiar with the current material. Those students are now working on, say, insects, while I'm just starting on worms, a subject they dealt with two lessons ago. When I start talking about these worms... then I discuss roundworms and tapeworms, well, then they're hooked. It's no effort at all. I like to exaggerate a little. When I'm talking about tapeworms and I tell them where these creatures live, how you have to collect everything that you excrete for the doctor, and the look on the doctor's face. And now I'm expressing myself fairly clinically. That's why I say it's my

nature; I like telling stories, I can spin the most fantastic tales. Either you've got the stories from someone else, or you just make them up on the spot. It doesn't make any difference to them, as long as you make it into a good story. Even the cleverest student is still an adolescent and fascinated by everything to do with poep and pee. You can really grab these guys with such stories. And you know, I quite like that.

Mr. Dorrestein: [7.30]

The method is cleverly designed in that it creates a good atmosphere, but also in terms of the structural approach to the English language. This stimulates students to remain attentive and to pick things up quickly. Students don't write much with this method; there are methods where they have to do a lot more writing. Last week, I gave them a rather difficult dictation exercise about what they'd read and heard on tape. They did much better than I'd expected. I had the impression that I hadn't spent much time on it, but because the method really inspires them, they pick up an awful lot of the material. And when you play the tape, well, they scream with laughter. And the funny thing is, it's much easier for them to remember the sentences, as well as the constructions used. It really appeals to them. There's always a nice twist, and you can tell they appreciate it.

Whether it just happens to be a good class, or whether the method works really well, it's too early to tell. But, with the last few tests, there was the odd failing grade, but the rest were all passes.

Mr. Bloem: [7.31]

You try to keep things as concrete as possible. You do your utmost to clearly illustrate even the most tedious subjects. If you make a subject interesting for the pupils, you automatically get their attention. Then they pick up what you want them to pick up, or part of it at least.

Take the theme of solidity, the skeleton. There's Jack, that's our skeleton at the front of the classroom. The children should take some time to look at him. Invite them to come and stand next to him! 'What does your arm look like? Yep, the lower arm can bend. Try that with Jack'. Then you don't notice much difference in level. Sure, some will pick up more than others. But certainly with a subject like their own body, they simply love it. Then you don't have to offer the material at different levels.

Mrs. Van Dijk: [7.32]

I don't think the good pupils are in any way hampered. I can tell from the eagerness they show in working with the material. The fun they have when

they do the exercises. Also, the extra challenge they're given by means of the extra material. They all do it; it's no problem at all. I think it's because it's a nice method, I don't think it's because of me; they simply like the method, they like doing the exercises, they like English in general.

Mr. Braas: [7.33]

I allow them to work ahead. With the old method, they wouldn't have done that. This shows that this method is more satisfying for them, I feel.

The above excerpts show that the teachers believe that the subject-matter and/or the way in which it is presented may have a motivating power. This power may contribute to the building of a community: differences become less problematic.

Our interviews also rendered examples of situations in which the subject-matter lacked motivational power.

Mrs. Vink [7.34]

As far as the method is concerned, it would be possible to use extra material. But the assignments aren't interesting enough for that. You need something really interesting to be able to compete with television.

The perspectives of the teachers show that subject matter content may, or may not, have a 'motivational power', and, thus, they emphasize that it matters *what* is on the program and *how* the subject is presented. A simple story - provided that it is well told - can suffice to catch the attention of students. The technocratic-adaptive view acknowledges the importance of 'affection': therefore, teachers should help students to 'train their will' by making sure that they acquire the requisite metacognitive or learning-to-learn skills. The adaptive teacher is supposed to 'instruct' the student in such a way that the negative affects are dissipated and the student will finally be able to 'self-regulate' these affects (Boekaerts, 1992; Corno & Rohrkemper 1985). Once the learner acquires these skills, the technocratic-adaptive view expects that motivation will follow naturally. *What* is learned and how this is related to the student's lives, however, is not taken into consideration. Prawat (1998) warned that this view of motivation is rational and dispassionate and that it separates the act of motivating oneself from the content for which one becomes motivated. The perspectives of the teachers correspond with Prawat's view in that the subject-matter does, or does not, have *meaning* to the students. Prawat showed how the inclusive-interactive approach offers a way of stitching the cognitive and affective together. He refers to the concept of 'powerful ideas', which goes back to Dewey. Powerful ideas have a strong cognitive power and a strong affective power, which is what the

teachers quoted above seem to reference. Teachers try to create 'images of feeling'. As Eisner (1988) said, the situations, people and objects we encounter are never without affect. Art can be said to be that activity that is concerned with the creation of images of feeling. Teaching, thus, has artistic elements. Whether all parts of the curriculum can be taught via ideas with strong affective power, however, is another issue.

7.5.9 *Adaptation of curriculum is necessary in broad heterogeneous classes.*

In broad heterogeneous classes (4 streams), teachers find that adaptation of the curriculum is unavoidable. While in classes with three streams, incidental adaptation often suffices, all the interviewed teachers who have classes consisting of four streams made it clear that, especially in the long run, structural adaptation of the curriculum is necessary.

Mr. De Hond (4 streams): [7.35]

Some pupils work three times as fast as others. If I give them all the same homework, some will be finished at home in 6, 7 minutes, while others will need 20, 25 minutes. You could take a sort of average, but in that case the potential high level pupil will be given too little work to do, while the low achiever – well, in fact, we don't talk in those terms yet – but the weaker pupil will get too much. You can prevent that by giving basic-level material and enrichment material.

Mrs. Van Dijk (4 streams): [7.36]

They all do the basic-level and the enrichment material. I don't say, 'You're not allowed to do the extra material'. They get a whole range of instructions and are given the same test, which is divided into basic-level and enrichment material. Only, well, some just can't cope with the advanced stuff and then I think it's wise to concentrate mainly on the basic-level material to make sure that's in order.

I've learned not to say too soon that they don't have to do certain exercises. At first, it isn't all that difficult, but in the course of the year, certainly in the second year, there comes a moment when I say, 'You don't have to do that. You can try if you want to, but you don't have to'. That's when I make the distinction a bit clearer.

The teachers quoted here are - partly as a result of their adaptations - convinced of the advantages of integration. However, integration is accompanied by compromise (the above teachers were also quoted in the section about compromise). Both observations, namely, that compromise and curriculum differentia-

tion are necessary, show that integration does not cause the differences in performance to disappear. They also emphasize that the interactive-inclusive approach tends to be romantic in viewing the teaching of diverse learners solely as a communal enterprise.

7.5.10 *The borders of streams remain visible in integrated classes.*

The patterns of compromise and the pattern of the need for adaptation both show that integration in the same class does not lead to equality of performance.

Mr. De Hond (4 streams): [7.37]

Of course, the students can change, but in terms of aptitude for my subject, they don't really change. I mean, when a pupil is good at English in the first year, he will be good at it in the second year, too.

Mrs. Wolf (4 streams): [7.38]

We structured the material in such a way that, in the first part, they are only given closed questions and a little self-work, while at the end, everything is open. We have done this to make them familiar with a certain way of thinking. We hope that when we get to the end, this way of thinking will have become so automatic, they don't have to be told to apply it. This works with a number of children, with others, it doesn't.

Take the notion of 'concentration'. They all have a siphon with a certain concentration of sugar, varying from 0-16%. They have to shoot this into their own or into each other's mouths, and yes, to do this in class is, of course, great fun. Now, it is possible that some pupils perform the experiment faultlessly, but struggle with the conclusion. What do you mean, conclusion? The water tasted either good or awful. If someone really hasn't understood any of it, he will write 'yes' under conclusion. Some children can understand the notion of 'concentration' when we're talking about one, two, or three lumps of sugar in a cup of tea. But if I mention the concentration of acetone in nail polish, they say, 'Hey, where did that come from?' They have difficulty transferring the notion to other things; they can't apply it to other examples.

Mrs. Van Dijk (4 streams): [7.39]

In the second year, I'm trying hard to explain the tenses. That's extremely difficult; it requires a lot of extra explanation and you've got to practise and practise again so as not to lose the lower-level pupils. I sometimes have the impression that, with a subject like the tenses, they just don't really get it. It's too abstract, too difficult for them to get a hold on.

On the dimensions of our earlier analysis, Mrs. Van Dijk consistently rated as a high-end teacher: she came across as being very competent. She is also a passionate supporter of heterogeneous classes. Even so, she finds that grammar is too abstract for some students. Her experience (as well as the experiences of the other teachers who teach broad heterogeneous classes) corresponds with the experience of teachers who compare two different streams. The teacher below compares a class in which the two lowest levels are integrated with a class in which the two highest levels are integrated.

Mr. Visser (comparing two levels of integrated classes): [7.40]

With an higher-intermediate or highest-level class, you can theorize. You can say, 'You know what questions are'. In Dutch, you change the order of subject and verb, but in English, you sometimes have to use 'to do'. Of course, you explain this to them step by step. But with a lower or intermediate group, you could never ever give such an explanation. You have to stick to a much simpler level. You can teach them something by endless repetition, more like a drill really. Their powers of concentration are much more limited than in a higher-intermediate or highest-level group. And you can't do drilling for more than 5 minutes. So you need a lot of varied exercise material, which shouldn't be too difficult, because then they give up.

Mr. Langen (comparing two levels of integrated classes): [7.41]

In a lower-intermediate class, you work in a practical manner. When you're doing possessive pronouns, you walk around and you pick things up from their tables at random, which they find very odd, of course. Great fun, but it works, because everyone's paying attention. And then you ask them who owns it. These are her things. So it's a very physical approach. That's how you do it in an lower-level class and it can be fun, but it takes twice as long.
In an higher-intermediate or highest-level class, you can start this way, but soon you use the blackboard to explain how it works, because these pupils learn better by using their eyes than by using their hands.

Both the teachers who referred to fully integrated classes and the teachers who referred to streams in which only two levels are integrated observed a recurring difference between students: the capability for 'abstract thinking'. This is not surprising. Although the different levels of Dutch secondary education reflect a tradition of various traits that cannot be summarized in one characteristic, an important element in the tradition that constitutes a 'high level' is the ability to theorize and to think about problems in an abstract way. As the experiences of the teachers show, the capability for abstract thinking is not

acquired by integrating poor abstract thinkers in a group with better abstract thinkers. This does not imply that integration is useless, but it emphasizes that in both integrated and separated groups, the characteristics of the way in which students learn are the same. This qualifies the assertion of the detracking literature that differences are created by the ways in which schools are structured.

The external standards valuing abstract thinking make the differences between students more visible. If the external standards are ignored, the teacher has more room to 'let every level be'. The teacher quoted below is in such an (exceptional) situation because, at her school, not student performance is graded in relation to the external standards, but student effort is graded. She is the teacher whose teaching format comes closest to the interactive-inclusive approach (see page 137).

Mrs. Pronk (4 streams). [7.42]

There are pupils who can't do a single thing, who find everything difficult and very scary. You notice when they are reading that they think it's scary, they start to stammer; they don't recognize words. When they're writing, you notice that they have huge difficulties. If you say, 'Learn these first five sentences for dictation', some children don't know how to write it down, they have great problems with that. It may be that it's a RT- pupil, who has problems grasping words. Sometimes the remedial teacher works on that. But there are some who will never learn. Some children come to me during an optional class and get extra English. Others don't, because they will never master questions and negations, and you have to accept that. There will always be some who just can't do it.

Standards indicate that not every kind of 'difference' is allowed, which undoubtedly causes 'differences' to be perceived as being problematic earlier. In Mrs. Pronk's class, students who do not grasp the material remain in the class.

Another question is whether it makes sense for a student to participate in a class in which he or she has little involvement in what others do. Terwel notices that a 'threshold' needs to be passed before a richer learning environment is beneficial to low achievers (Terwel 2002; Dar & Resh 1994, 1986). Vygotsky talked of 'the width' of the zone of proximal development of students, which is not the same for everybody. Teachers experience this too. At some point, it becomes unclear whether integration still makes sense.

When comparing the perspectives of teachers (that the borders of the old streams remain visible after integration) with the two prototypes of teaching diverse learners, we note that the technocratic-adaptive approach suggested that

despite individual differences in aptitude at the start, common goals could be reached (Corno & Snow, 1986). This assumption was one of the cornerstones of the discussion about innovating the first phase of Dutch secondary education. It was expected that the technocratic-adaptive approach would be able to help low achievers gain considerably upon high achievers. This appeared to be wishful thinking (Prawat, 1992; Vernooy, 1997/1998). In evaluating effectiveness studies, Blok and Breetvelt (2002) recently found adaptive teaching not to be worthwhile.

Advocates of the interactive-inclusive approach do not expect differences to disappear, but view diversity from a positive angle. Brown (1994), for instance, refers to Gardner's (1983) multiple intelligence and frames diversity in terms of enrichment. Such an optimistic view causes some teachers to flare up against educational experts.

Mr. Langen: [7.43]

At the time, they said it was all right to mix low and high level children because some children are simply good at one thing and other children at something else. Well, that just isn't true. A high level child is better at everything, including drawing and PE. That's what's so frustrating. Occasionally, they may not be good at sports, but that's it. In contact sports, low level children can sometimes outdo the others because of their cheek. But if it's gymnastics, a higher-level child usually performs better. So it's such nonsense, this notion that every child is good at something. It just isn't true. There are children who are no good at anything and there are those who can do just about everything. That's extremely frustrating for the other children, but that's the way it is. I've really noticed that.

Mr. Langen's view is supported by recent research conducted by the Dutch Education Council (Onderwijsraad, 2001) that showed that students who are strong in one subject, also tend to be strong in another subject. This does not contradict Gardner's notion of multiple intelligence, but stresses that the notion of multiple intelligence does not deny that different *levels* of multiple intelligence exist. Brown (1994) seems to acknowledge this: she remarks that learners develop at different rates and may be more ready to learn in some areas than in others. However, she does not discuss what consequences this may have when students are in the same class during a longer period of time. Also, the inclusive-interactive view seems to be too optimistic concerning the extent to which integration causes differences in performance to disappear.

7.5.11 *Whole class teaching is not necessarily uniform education.*

The stories of teachers show that whole class teaching is generally not as uniform as is often suggested. Working in front of the class does not exclude acknowledgement of the individuality of students. Below, teachers are quoted for whom whole class education is an important part of their lessons.

Mr. Visser: [7.44]

Every now and then, you notice you're forgetting one. Not everyone has already had some English in primary school. And if you don't realize this very soon, and if the pupil isn't too bright, you immediately have to give him some extra attention, or you'll lose him.

Mr. Messen: [7.45]

Teaching heterogeneous groups means dividing your attention among a lot of different children, all at different levels.

Mrs. Vogel: [7.46]

In a heterogeneous class, you have to be quick to determine which are the good pupils and which the weaker pupils. You can only do it if you've been a teacher for some years already; when you're just beginning, you just don't see it. For example, some pupils don't really understand how to do a particular exercise. They see the example, but they need more examples to understand what they're supposed to do. We tend to say things like, this and this is homework, but with a weak pupil, you have to explain better what it is they have to do. I now notice that when I'm explaining something, I look at the weaker pupils more often and that I try to involve them more in the lesson, while I don't look as often at the other pupils. I look at them to check whether they understand what I'm saying.

Mr. Bogaard: [7.47]

You adapt yourself to the class. I mean, you prepare a lesson. But then you have to sell it. How you do that depends on the audience, on how they react.

Mr. Bloem: [7.48]

I go through a part of the material. Pupils are used to my sitting on my desk or walking around the classroom and writing some keywords on the blackboard. Then, we get a sort of question-and-answer game, especially with human biology. Fibers are an important part of our food. When you talk about what fibers do for us, you talk about constipation. My granny always ... well, I let that pupil tell her story: about granny, who drinks plum juice in the morning or who puts muesli in her yoghurt. That's how a question-and answer game develops. They tell each other things and so instruction goes on for about half an hour.

Many teachers, thus, 'naturally' address diversity in the class and use the daily experiences of students. This does not alter the fact that some other teachers, as a means of creating order, *try* to reinforce uniformity. (Whether they succeed in shaping a jumble of individuals into a uniformly operating group, however, is another question).

The quotations above show that Doyle (1985) justly stressed that classroom teaching is often more 'adaptive' than the stereotype of the 'traditional' classroom or the usual control group condition in an instruction experiment. Brophy and Good (1974) indicated that much of the information a teacher directs to 'the class' is actually directed towards individual students. The need for 'adaptive education' generally starts from the assumption that group-based education is uniform, but, as we see here, this assumption tends to draw on a caricature of regular teaching. In this respect, a comment made by Eisner is relevant. He explains that at the heart of individualization is the non-mechanical adaptations of teachers: the variety of questions and types of examples teachers provide, the modulation of tone of voice, etc. Eisner concludes that mechanical images too often intervene and hamper our recognition of the excellent things teachers already do (Eisner, 1985 p. 182).

The interactive-inclusive approach, when distinguished from regular teaching, also seems to start from a caricature of regular teaching. Bielaczyc and Collins (1999) compared the interactive-inclusive 'learning community' approach with the approach followed in regular classrooms. They acknowledged that both approaches share similarities and that classrooms have evolved over the years to include more social interaction, yet they made various distinctions between the old and the new approaches. Their descriptions of classroom situations, however, gives us the impression that Bielaczyc and Collins compared the learning community approach of good teachers in compliant classes with the whole class approach of less good teachers in less compliant classes. The stories told by teachers led us to question whether the interactive-inclusive approach really offers anything new to good, but 'traditional', teachers. Both the adaptive and the inclusive approaches, thus, tend to start from stereotypes of regular teaching.

7.6 Making Sense of Teacher Perspectives: Can Schools Create Equality?

Discussions about teaching diverse learners (such as occurred before '*The Basis-vorming*' was introduced) took place in the light of democratic ideals. The concept

of social equity is central in the way in which the democratic ideals are often viewed. Many researchers believe that education could contribute much more to social equality than presently occurs: Curriculum differentiation and tracking (streaming) are a major source of unnecessary inequality and an obstacle to an equal society (Jungbluth, 2003, Oakes, 1985; Terwel 2002). Oakes (1985, p. 211) adds that 'the highest levels of achievement' will occur if the right kind of social reorganization takes place. Reigeluth (1999) states that new ways of education will be geared towards the advancement of all in ways 'that will prepare everybody for the information age'. To be sure, 'radical changes' are necessary, but then, 'priceless gains' are to be expected (Black & Atkin 1996). Many authors have generated high expectations concerning the possible contribution of educational reform to social equality or - as some others would formulate their ideal - to the information economy. Teachers can't meet these high expectations: the borders of old streams remain visible in integrated classes; differences between students remain to exist, which make compromises necessary. Does the literature supply evidence that teachers are doing something wrong, or that schools are doing something wrong?

Below, we elaborate on the detracking literature, on an innovative view of learning called 'situated learning' and on ways of stratification in our society in order to make sense of the perspectives of teachers that dampen the high expectations of some (prominent) researchers.

7.6.1 *Detracking.*

The (de)tracking literature suggests that a change of school structure can contribute considerably to more equality. We consider Oakes (1985), Wheelock (1992) and Terwel (Terwel, 2002, 2003a, 2003b) as opponents of tracking and advocates of integration. Oakes showed that both the content and the methods of instruction vary markedly in classes at different levels. Students in high groups are more likely than others to have access to knowledge valued in society. Students in low groups, moreover, spend less time on learning activities and are less likely to experience instructional strategies associated with academic achievement. She concluded that the differential treatment of students does not lead to gains in student achievement. In addition, it has negative effects on students in average and lower groups with the most adverse effects on those students on the bottom levels (p. 175). Therefore, she stated that schools treat some students better than others (p. 172). Although she cautioned that the cause of this cannot be disentangled, she

states that schools (partly) constitute and perpetuate inequality (p. 194). It is clear from her message that this need not be the case.

Our earlier analysis of the teachers' perspectives in Chapter 5 and 6 showed that many teachers find that the participation of good students in the class may enhance the collective learning process, albeit that our analysis showed an important condition that the imitation tendency must be oriented towards the intended learning process. Nevertheless, this analysis yielded some support for Oakes' view that it is not desirable to compose a class of unmotivated and weak students. The patterns presented above, however, showed that (while tracking may have disadvantages) integration cannot cause the borders of the old streams to disappear in the integrated class, which means that, in broad streams, adaptations are necessary and compromises are unavoidable.

Oakes recommended that teachers should 'at least expose' all students to those concepts and skills that permit access to higher education. Jungbluth, who said that unequal schools account for at least half of the differences in achievement (2003a; 2003b), follows the same line of thought as Oakes. He also complains that schools do not offer the same 'enriched' curriculum to all students and, thus, create inequality. In short, his line of thought is that (low) social economic status creates (low) teacher expectations, which create a (poor) curriculum that creates (poor) performance. Like Oakes, he confuses cause and effect. A more reasonable line of thought is that student performance, (for which social economic status is a good predictor) forces teachers to adapt the curriculum. Oakes, Wheelock and Junghbluth ignore the fact that adaptations of curriculum may be necessary *because of* the student. They fail to understand that teachers cannot and should not ignore the actual level of understanding of students. Moreover, as long as 'exposing all students' does not mean that all students really grasp the material, it is a spurious solution.

Oakes warns that tracking does not have the expected beneficial effects: it does not help low achievers to gain on high achievers, but augments the differences. Irrespective of the institutional conditions, however, it is logical that differences will increase during the course of time. This can best be explained by comparing a runner who runs 10 mile per hour with a runner who runs 5 miles per hour: the distance between them becomes larger and larger. Dutch effectiveness research on heterogeneous versus homogeneous groups show no considerable differences between heterogeneous and homogeneous conditions (De Vries, 1992), although for low achievers there is a minor effect in favor of the heterogeneous condition, while high achievers lose a little in heterogeneous conditions

(Dar & Resh, 1985, 1986, 1994). This corresponds with the perspectives of teachers who support Oakes to the extent that the integration of low-performance students with high-performance students may create a positive learning climate for weaker students, which may cause the weaker student to 'run a little faster'. However, the two runners remain at a considerable distance. Thus, while a positive learning climate is important, its effect on the final results of broad heterogeneous classes - in relation to the full variation in achievement that exists - is not large enough to make adaptations in curriculum and in evaluation superfluous.

The detracking literature, thus, overestimates the detrimental effects of tracking and overestimates the positive effects of detracking. This exaggeration occurs because the detracking literature has no clear view of differences. This becomes evident when Oakes makes her axioms explicit. In Oakes' preface to Wheelock's book, Oakes writes that intellectual ability is primarily a social construction, rather than a genetic inheritance. "We are faced with overwhelming evidence that nearly every child is capable of achieving every worthwhile educational goal" (Wheelock 1992 p. 10). Unfortunately, no references are mentioned to defend this point of view. More evidence is available for the opposite statement namely that the development of what we usually denote by 'intelligence' is substantially influenced by genetic factors (Bartels, Rietveld, Van Baal, Boomsma 2002). Along the same lines, our teachers experience that differences don't disappear in spite of attempts to give the weak students extra attention or create better conditions. The detracking literature does not offer evidence to assume that a change of school structure or of curriculum would alter this situation.

7.6.2 *The situated approach.*

Both models on teaching diverse learners involve attempts to improve the teaching method in order to prevent unequal performance. We present a more complete picture of the literature by elaborating on the situated learning perspective, a stream within the inclusive-interactive approach.

The situated approach criticizes school learning, because it prepares students poorly for real life. Resnick (1987) illustrated this by examples of low-paid workers, who found that the arithmetic rules of the classroom were disconnected from the knowledge they needed in the workplace. In that workplace they were able to do their work well: they acquired knowledge informally. Resnick also illustrated her case by referring to better-paid jobs. In most professional fields, a continuing tension exists between theoretical and practical or clinical training.

Therefore, she recommended a revision of schooling, indicated by 'apprenticeships' (Resnick, 1987). Other authors have used her ideas to promote 'cognitive apprenticeships' (Brown, Collins & Duguid, 1989). This approach became known as the "situated learning perspective" (Brown et al. 1989; Greeno, 1997; Cobb & Bowers 1999), in which learning develops in the interaction of the learners in problem situations that remain the reference point during the learning process.

When comparing this line of thought with the perspectives of teachers, it is clear that some teachers apply notions from the situated approach. Mr. Langen (page 156) tells that he discusses the possessive pronoun by stealing things from the student's desks, which causes them to say "That's mine!". Mr. Bloem (page 152) tries to involve all students by placing one next to a skeleton and by asking the student to compare his or her bones with those of the skeleton. Mrs. Wolf teaches the concept of 'concentration' by having students taste the content of siphons that contain water with varying concentrations of sugar (page 155). These are all attempts to situate education in concrete situations. But does this approach bridge the differences between students? They certainly help to get students involved. The stories, however, show that, in spite of the 'situated' approach, some students do not manage to go beyond the concrete. Mrs. Wolf (page 155) indicated that some students did not grasp the concept of concentration, or could not transfer this concept to a situation in which the concept refers to something other than water and sugar. For other students, as our stories showed, this 'situated' approach is not necessary. Mr. Langen (page 156) stressed that students who are able to grasp grammatical concepts are able to move through the material quicker. This is where the value of abstract thinking lies: abstract thinking enables people to deal with subject-matter more efficiently.

Resnick is correct in indicating that some people think too abstractly, but this is quite a different problem than the problem that others do not think abstractly enough. Resnick tends to confuse these two problems. She suggests solving the first problem by stressing the other; in this way, she tends to underestimate the value of abstract thinking (see also Anderson, Reder & Simon, 1996). Of course, Resnick's approach is intended to evoke abstract thinking *after* students have encountered the concrete situations to which these abstract notions refer; she advocates an approach 'from practice to theory'. It has been asserted that such an approach immensely diminishes the classical "transfer problem" in application situations (Korthagen & Kessels, 1999). The experience of Mrs. Wolf, however, shows that students do not conceptualize their observations in concrete

situation (during classroom experiments) in an equally effective way. Some students don't spontaneously reach the abstract level which is necessary for transfer. Research on the effects of a situated approach of mathematics on low achievers showed that although they benefit from 'realism', they had troubles looking at problems in different ways and benefited more from instructional methods in which a fixed way of solving problems was prescribed (Milo, 2003). Moreover, some students reach the abstract level much more quickly than others (which does *not* automatically imply that their knowledge is detached from practical reality). As we saw, the capability for abstract thinking was important in defining the difference between high and low achievers. Although a situated approach is valuable in itself, this approach does not offer a method that helps (former) low achievers to reach an equal level as high achievers.

7.6.3 *Other ways of stratification.*

We indicated that (external) standards make differences between students more visible. Some authors question the interpretational frameworks behind these standards that result in issues of 'high status' and 'low status'. They stress that the present educational system, in valuing intellectual skills over laboring skills, favors the qualities of those who are in power (Bourdieu & Passeron, 1977; Apple, 1978; Oakes, 1985). Lave (1986, 1988, p. 195) went so far as to suggest that school-taught mathematics serves only to justify an arbitrary and unfair class structure.

If nothing else, these authors are probably correct in arguing that, if laborers were in power rather than academics, the system of stratification would likely change. Different cultures value different things. In some cultures, muscle power is important. In other cultures, conformity is valued over personal growth and the development of one's intellectual talents. In such cultures, the brightest people do not have the best chances; instead, they are likely to get into trouble. The statement that the values of our educational system reinforce the existing power structures is true, but it does not add much to our understanding. The whole enterprise of education is based on the fact that some aspects of humankind's development are valuable enough to be shared with a next generation. Because a curriculum is based on what is valued, a curriculum is never politically neutral (Van Manen 1977; Doyle 1997). As soon as one translates these values into standards, groups are likely to emerge that achieve the standards easier than others. It remains useful to discuss both the composition and the values behind the standards. Whatever the scope of the standard may be, however, humans remain to be different. A change of standards does not create equality.

7.6.4 Conclusion: *The paradox between different and equal.*

Many attempts have been made to support the development of low achievers in such a way that the differences in performance would disappear. Head Start and similar programs have been implemented worldwide. Disappointing results caused a shift of focus from regular schooling to the early learning period. The focus of the present study was on the differences that exist in secondary education. Viewed in the light of the Head Start experience, it is not surprising that the differences between students in secondary school classrooms do not disappear. Education can contribute considerably to social mobility, which is demonstrated by the number of students from lower social-economic backgrounds who have been successful in higher education jobs. This does not imply, however, that education can produce equality. Therefore, educational theory should not overestimate the 'forming power' of education: while education is a prerequisite for human development and while education is necessary for humans to become humane, humans are not created by education. At least, we did not find evidence to support the optimistic view suggesting that an equal society can be created by a certain teaching strategy or by a certain school structure.

Human beings are existentially different. This presents our society with a paradox: on the one hand, our society is built on the acknowledgement of the value of knowledge and skills; on the other hand, our society is built on the acknowledgement of the equality of all citizens. How can we consider a fellow citizen to be equal if he or she does not have as much knowledge and as many skills as others? This paradox cannot be solved easily. Denying differences (which reinforces a *lack* of room for diversity), however, offers no solution.

We conclude that, while acknowledging that there are good teachers and bad teachers who are both represented in our study, there is no reason to assume that the mere fact that differences don't disappear in (partly) mixed classes indicates that teachers or schools do something wrong.

7.7 A Practice-Based Theory

We summarize the adequacies and inadequacies of the two views of teaching diverse learners below in order to contribute to a practice-based theory on teaching diverse learners. We also refer to conclusions from previous chapters.

7.7.1 Evaluation of the *technocratic-adaptive model.*

We identified the following (in)adequacies of the technocratic-adaptive view:

Adequacies

- The 'adaptive' acknowledges the different needs of students.
- The giving of individual attention by a teacher who is 'a guide on the side' may in itself help the teacher to get to know the individual student better.

Inadequacies

- The technocratic-adaptive approach starts from an individualistic portrayal of humankind. We have shown that this is one-sided. The group may function as a motor of learning and as a source of inspiration, which is ruled out, for instance, in a self-regulatory approach that requires each individual to rely upon his or her own resources.
- The technocratic-adaptive approach does not specify the extent to which adaptation makes sense, thus suggesting that individualization is necessary in every situation. This overlooks both the importance and the possibilities of integrating individuals in the group.
- The technocratic-adaptive approach fails to take classroom management issues into consideration.
- The support provided by the teacher as a personal 'guide on the side' does not amount to what the theory suggests, for the teacher is not free to concentrate on individuals. While paying attention to individuals, he or she remains responsible for managing the rest of the class. By suggesting that education can be customized, the technocratic-adaptive approach promises more than it generally can provide.
- The technocratic-adaptive view starts from an objectivistic principle, as if dealing with students were based on indisputable knowledge. If the teacher, however, restricts him- or herself to such knowledge, the relationship becomes impersonal and sterile. In its objectivistic view of reality, the technocratic-adaptive approach overlooks the fact that students give meaning to subject-matter. Subject-matter may attract students because it is fascinating, or repel students because it is boring. Therefore, the task of the teacher is more complex than just training students to 'self-regulate their affects'.
- The technocratic-adaptive approach, moreover, is too optimistic about the degree to which adaptive education can help all students to perform equally.

7.7.2 *Evaluation of the interactive-inclusive model.*

We identified the following (in)adequacies of the interactive-inclusive view:

Adequacies

- The interactive-inclusive view acknowledges the importance of culture, meaning, interpretation, and (sometimes) the quality of personal relations.
- The interactive-inclusive view acknowledges the importance of 'the social', of communion, and of communality.

Inadequacies

- The interactive-inclusive view is one-sided in that it only acknowledges the need for integration, while overlooking a possible need for adaptation. In other words, the interactive-inclusive approach justly acknowledges social aspects of learning, but fails to acknowledge individual aspects of learning.
- The interactive-inclusive view does not specify the possibilities for integration, thus suggesting that inclusion always makes sense. It tends to be romantic regarding the extent to which inclusion is possible.
- In chapter 5, we found that 'the social' does not support the intended learning process per se. We showed that sophisticated classroom management and sufficient positive resources are needed to arrive at a situation in which social interactions between students support the intended learning process. Thus, the interactive-inclusive is too optimistic about the extent to which social interaction automatically supports the intended learning process and it is too optimistic about the room for diversity that naturally occurs in classes.

7.7.3 *Conclusion: rating the quality of teaching diverse learners.*

Our analysis shows that differentiation and integration are *both* important in teaching diverse learners. They are a paradox: (s)he who differentiates does not integrate, and vice versa. How the paradox between differentiation and integration should be embraced depends on local factors.

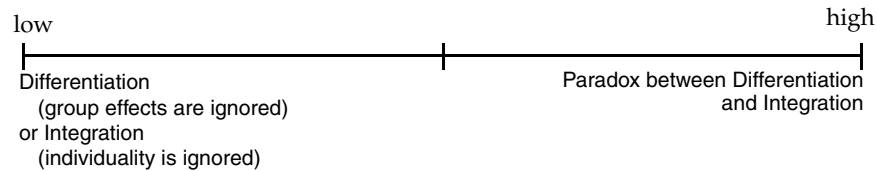


Figure 7.1: Rating the quality of teaching diverse learners on a spectrum.

7.8 Recommendations

We recommend the following implications be taken into consideration for future research and for the development of expert knowledge.

- Acknowledging individuality on the one hand and whole class teaching on the other hand — although they seem to be opposites in theory — can be reconciled in practice to some extent. Although at a certain moment, compromises become unavoidable, some degree of diversity in performance can be accommodated in whole class education (Treffers, 1997). Whole class education, thus, is not equivalent to a kind of education that favors selection in different streams at an early age.
- Adaptive education should not be viewed as a (preferred) antagonist of whole class education as, for instance, the Inspection does (Inspectie, 1997, 1999). Treffers (1997; 1997/1998) justly complained about this one-sided view. In order to decide about the preferred teaching strategy, the concrete situation should first be diagnosed: one should know whether adaptation is necessary and whether integration is possible.
- The issue is not *whether* whole class teaching occurs, but *how* it occurs: are students actively involved in what is going on? Are teacher and students in touch with each other? The external characteristics of education — those which can be seen simply by looking through the classroom window (compare Terwel & Hooch Antink, 1996) — do not determine whether good teaching occurs. More fundamental issues are at stake.
- The points above show that educational theory should be cautious in regarding traditional looking education as being outmoded. The trend toward learning communities underlines the necessity of 'learning

Chapter 7

An Evaluation of Two Models of Teaching Diverse Learners

together' which may also occur in whole class education. Here too, it should be realized that 'the tradition' may offer more wisdom than becomes evident at first sight.

The points above start from the conclusion that adaptation and integration are a paradox. They illustrate that ways need to be found in which the paradoxical character of education is acknowledged.

8

Embracing Opposites

Our development of a practice-based perspective has led us to define four paradoxes. Each paradox represents two opposing, but valuable goals that need to be addressed by a teacher. Since the goals of a paradox conflict, embracing opposites cannot occur in a logical way; still, dealing with the dilemmas defined by the paradox is a fundamental activity in teaching. Managing such dilemmas is a practical activity that regards the personality of the teacher as a tool.

8.1 Introduction

In the previous chapters, we formulated three paradoxes: the paradox between *involvement and detachment* (Chapter 3); the paradox between *adaptation and provocation* (Chapter 4) and the paradox between *individuality and communality* (Chapter 5). We consider the paradox we formulated in Chapter 7 between *differentiation and integration* as a summary of the three paradoxes. We suggested that the 'high-end' teachers embraced the opposites of each paradox, whereas the 'low-end' teachers embraced only one of either pole. In this chapter, we use the literature to understand what it means to embrace opposites. We focus on what a paradox is and examine whether paradoxes can be a part of a theory that helps practitioners explore their own situation.

8.2 Embracing opposites

The work of Palmer (1998) inspired us to look at our interviews through the lens of paradox. Two quotes illustrate his reasoning:

"The principle of paradox is not a guide only to the complexities and potentials of selfhood. It can guide us in thinking about classroom dynamics and in designing the kind of teaching and learning space that can hold a

classroom session.” (p. 73)

And,

“Teaching and learning require a higher degree of awareness than we ordinarily possess — and awareness is always heightened when we are caught in a creative tension. Paradox is another name for that tension, a way of holding opposites together that creates an electric charge that keeps us awake. Not all good teachers use the same technique, but whatever technique they use, good teachers always find ways to induce this creative tension.” (p. 74)

Palmer’s description of paradox concurs well with the perspectives of Lampert¹ (1985). As a practitioner, Lampert sometimes found herself caught up between two valuable goals. In her class, the boys were more disruptive than the girls. She faced a choice between either accepting disorder and paying equal attention to both groups, or having an ordered classroom while paying less attention to the girls. She, thus, experienced a juxtaposition of responsibilities, in which there is no *right* solution “in the sense that a theory built on valid and reliable empirical data can be said to be right” (p. 181). In a similar way, most teachers we interviewed for this study found themselves in front of the antagonistic but valuable goals as expressed in our paradoxes.

Lampert states that the resolution of this dilemma cannot be neat or simple. Even though she cannot find the ‘right’ solution, she must do something about the problems she faces. She emphasizes that, when considering the conflicts that arise in the classroom, she does not see a choice between abstract social goals such as ‘excellence’ versus ‘equality’, or ‘freedom’ versus ‘standardization’, between ‘pushing students to achieve’ versus ‘offering a comfortable learning environment’. (We note that Lampert’s last dilemma is similar to our paradox about adaptation versus provocation.) The contradictions between the goals Lampert is expected to accomplish become an inner struggle about how to do the job. She experiences this as an opposing tendency within herself in which neither side can come out the winner. In order to hold the conflicting parts of her job together, she needs to find a way to manage the dilemma without exacerbating the underlying conflicts.

Lampert realizes that it is not a conflict of will, but of identity. She uses her capacity to bring disparate aspects of herself together in the person that she wants to be, realizing that her personality is one of her tools to construct an

1. We thank F.A.J. Korthagen for suggesting Lampert’s article.

approach to managing the dilemma. She states: (p. 167) “A teacher has the potential to act with integrity while maintaining contradictory concerns”. The person that she wants to be — this ambiguous self-definition — becomes a tool to enable her to accomplish her pedagogical goals. “After recognizing the dilemma, I had not resolved any of the arguments of what to do, but I did have some sense of who I wanted to be. And that made the difference (p. 167)”. This does not imply that the dilemma is solved. It is *managed* (managed in the sense of to contrive to do something, implying that the capacity for invention or improvisation is a necessary element of the manager’s repertoire). Lampert explains that, in order to do the job, the dilemma-managing teacher calls upon her conflicted self as a tool of her trade, building a working identity that is constructively ambiguous.

This is exactly what we think our high-end teachers do (see, for example how “Mrs. Van Dijk:” on page 65 reconciles the poles of the paradox between adaptation and provocation). In the words of Palmer: they hold opposites together.

The managing of dilemmas is fundamentally a *practical* activity for which Lampert uses the particulars of the situation. Antinomies do not permit a logical but only a pragmatic resolution (Bruner, 1996). Lampert continues: “The dilemma manager accepts conflicts as a continuing condition with which persons can learn to cope rather than seeing it as a burden that needs to be eliminated (p. 192)”. She shows that this practical activity involves the teacher’s personality as a tool. This is another aspect in which Lampert’s view of managing dilemmas concurs with Palmer’s view of paradoxes. While referring to Schumacher’s classic *Small is Beautiful* (1973, p. 97-98), Palmer stresses that paradoxes invite people to be open to something larger than oneself:

“Through all our lives we are faced with the task of reconciling opposites which, in logical thought, cannot be embraced... How can one reconcile the demands of freedom and discipline in education? Countless mothers and fathers, in fact, do it, but no one can write down a solution. They do it by bringing into the situation a force that belongs to a higher level where opposites are transcended — the power of love... Divergent problems, as it were, force us to strain ourselves to a level above ourselves; they demand, and thus provoke the supply of, forces from a higher level, thus bringing love, beauty, goodness and truth into our lives. It is only with the help of these higher forces that the opposites can be reconciled in the living situations.”

In Chapter 3, 4 and 6, we have shown that there are high-end teachers who embrace the paradox, while there are low-end teachers who only acknowledged one of either poles. Out of our group of 25 teachers, several teachers consistently ranked high on all three spectra (for instance, Mrs. Van Dijk and Mr. Bogaard), while another small group consistently ranked low. Most of our teachers ranked well between the extremes: some teachers were strong in acknowledging some aspects but less strong in others. Lampert sheds light on why our high-end teachers may be good teachers.

8.3 Paradoxes and similar concepts in the literature

The acknowledgement of paradoxes in pedagogy is by no means a novelty. In 1927, the participants at an educational conference in Weimar, Germany, fell into two opposing groups: those that stressed the importance of *Führen* (steering, directing) in education and those that stressed the importance of *Wachsen Lassen* (self-development). This inspired Theodor Litt (1927, 1965), a professor from Leipzig who held the keynote address at that conference, to write his famous book *Führen oder Wachsen Lassen*, which later became one of the standard books of educational theory, especially in Europe. His book intended to demonstrate that *both* views were simultaneously valid. In his introduction, he wrote that the depths of the paradox became clear only after experiencing the intellectual tug-of-war between the holders of opposing views.

Litt uses the German word '*Paradoxie*'. Lampert uses several terms to refer to the managing of dilemmas: '*contradicting interests*', '*dichotomous alternatives*', '*contradictory concerns*'; her article is called '*Problems in Practice*'. Bruner (1996) also referred to contradictions in the educational reality; he denoted them by '*antinomies*.' The term '*dilemma*' also reminds of Berlak & Berlak's *Dilemmas of Schooling* (1981). The dilemmas discussed by Berlak and Berlak concerning cultural contradictions and opportunities for social change, however, differ from dilemmas we consider here.

From all these works, Palmer's (1998) work is the most recent. In workshops on teaching and learning, Palmer uses paradoxes as instruments with which teachers can explore their own experience and their own self². His work seems to inspire many teachers (see, for instance, Intrator, 2002). Therefore, we use

2. Palmer (1998) describes other paradoxes than discussed here; Bruner's (1996) antonyms also concern different issues.

Palmer's term 'paradox' instead of the term 'dilemma', also to avoid confusion with Berlak & Berlak's dilemmas. A paradox is an *apparent* contradictory statement: although the two opposites are irreconcilable on a logical level, they are less contradictory than they appear, because they can be 'managed' on a practical and personal level.

8.4 Paradoxes and theory.

Lampert presents the stories of the *teacher as a dilemma manager* as an 'image'. Images of teaching frame our construction of the tasks teachers perform, she says. They can help us think about the nature of classroom practice. What Lampert calls 'images of teaching' concurs with what Doyle (1997) denoted by 'provisionary models' that can help improve teacher's understanding of events and actions in the classroom settings and their ability to recognize and produce novel arrangements. Such models can help one see more than one did before (see also Verloop, 1989).

Lampert distinguishes the perspective of the practitioner from the perspectives of theory-builders in several ways. The teacher's emphasis is on concrete particulars in the classroom, rather than on generalized truths. Another fundamental difference involves the personal qualities of teaching problems as seen through the eyes of a practitioner: the personality and character of the teacher has a great deal to do with both the way she defines problems and what can and will be done about them. The academician solves problems that are recognized in some universal way as being important, whereas a teacher's problems arise because the state of affairs in the classroom is not what she wants it to be. She stresses, however, that some of the problems the practitioner is required to do something about might be defined as unsolvable. As the teacher considers alternative solving to any particular problem, "she cannot hope to arrive at the 'right' alternative in the sense that a theory built on a valid and reliable empirical data can said to be right" (p. 181). In this way, Lampert stresses the importance of a practitioner's perspective as being different from an academician's perspective.

By pointing to the differences between the perspectives of the teacher and the perspectives of the academician, Lampert observes what some would call 'a gap between theory and practice'. She complains that most commonly, teachers are assumed to make choices among dichotomous alternatives:

*"Much pre-service and in-service teacher education today takes this form.
Professors and staff developers use evidence from research, rationales*

drawn from educational philosophy, or personal charisma to convince teachers that one approach is better than its opposite” (p. 191).

She continues her complaint:

“Improving teaching involves simplifying alternatives by screening out contradictory concerns so that any reasonable person would make the same correct choice using the same information. The process is mechanical, not personal; it is the sort of thinking one can imagine would be done better by unbiased machines than by people. This theory, therefore, cannot help teachers to figure out what to do about the sort of unsolvable conflicts in their work that I have described” (p. 192)³.

Lampert believes that theory cannot contain paradoxes. Therefore, this kind of theory cannot help her figuring out her problems. Such theories put her in a situation in which she feels forced to choose — in the words of Schön — between ‘rigor’ or ‘relevance’.

8.4.1 *Developments in our field*

Lampert wrote her article in 1985. Since that time, much has changed. Lampert started from a specific definition of theory. It is the type of theory that is reminiscent of the Kessels & Korthagen (1996, p. 18) description of *episteme*:

“It is propositional; i.e. it consists of a set of assertions that can be explained, investigated and transmitted and the like. These assertions are of a general nature; they apply to many different situations and problems, not only to this particular one. Consequently, they are formulated in abstract terms. Of course, these propositions are claimed to be true; preferably their truth is even provable, or at least they can be considered as part of a theory, with which they are consistent, giving an indication of their truth. Because they are true, they are also fixed, timeless and objective. And through their link with theory, they are part of the more extended domain of social science. Besides, they are fully cognitive in nature; they are purely intellectual insights, unaffected by emotions or desires. It is this knowledge that is considered of major importance, the specific situation and context being only an instance for the application of knowledge. It will not be difficult to

3. This again concurs with Palmer (1998), who noticed that if only rational-technical ways of reasoning are allowed (he calls it binary thinking), a fragmented sense of reality is created which destroys the wholeness and wonders of life; that which makes teaching worthwhile disappears.

recognize these characteristics as Plato's purely intellectual forms or ideas and his mathematical knowledge ideal which he called episteme."

The view of 'theory' as *episteme*, or as being linked to knowledge as *episteme*, however, has been a topic of discussion among researchers. The gap between theory and practice as described by Lampert also has been an object of reflection. Kessels and Korthagen (1996) concluded this gap is inherent to our conception of knowledge as *episteme*. In teacher education, they have discovered the value of what Aristoteles called *phronesis*, which is comparable to term *connoisseurship* used in Chapter 3 and 4. *Phronesis* attends to concrete details of a case; it is essentially perceptual. The authors write: "An important prerequisite for this type of knowledge is that someone has enough proper experience. For particulars only become familiar with experience, with a long process of perceiving, assessing situations, judging, choosing courses of action and being confronted with their consequences. This generates a sort of insight that is altogether different from scientific knowledge" (p. 20). They state that the knowledge developed by experience cannot be transferred through the use of pure conceptual knowledge. It cannot be severed from the person. "What we need (in teacher education) is not so much theories, articles, books, and other conceptual matters, but first and foremost, concrete situations to be perceived, experiences to be had, persons to be met, plans to be exerted, and their consequences to be reflected upon" (p. 21). The authors believe that conceptual, external, and more or less objective knowledge may be an instrument for exploration, but it is not 'the real thing' in teacher education. For the real thing is not conceptual, but perceptual knowledge that cannot be severed from the person.

For Kessels and Korthagen, *phronesis* is not a certain kind of theory, nor a certain conception of theory. The authors do not suggest that *phronesis* can be gathered by doing research; they only present it as being essential in teacher education. *Phronesis* does not replace *episteme*, but their emphasis on the necessity of *phronesis* challenges the supremacy of theory as *episteme* and acknowledges the importance of experiencing concrete practical situations. This is what Lampert stressed, too.

The attention for the particulars of the concrete situation also reverberates in the developments concerning research. A realization of the huge influence of local factors caused qualitative inquiry to become more important in educational research. Qualitative research takes a much closer look at the particulars of the situation and is, thus, better aware of context. Researchers, moreover, increasingly adopt methods of knowledge development that are also being used by

reflective practitioners. The cycles that Gravemeijer (2003) described for design-based research are the same cycles as Schön (1983) described for a reflective practitioner.

Doyle (1997) seems to go a step further in redefining theory — in redefining what research is all about — by considering the ‘provisionary models’ as ‘theoretical models’. He considers effective teaching to be a local achievement constructed under immediate and particular circumstances. Effective teaching, thus, is not a context-free and fixed property of a teaching behavior. Effective teaching, in and of itself, is an enormously complex *theoretical* problem: a problem of interpretation, explanation and understanding. “What is needed are classroom theories grounded in answers to questions of how classrooms work and how teaching effects occur in these environments” (p. 97). Doyle does not seem concerned about ‘grand theories’. He is interested in models that can help practitioners, even if they are provisional; models that Lampert calls ‘images’ which can help us think about the nature of classroom practice.

Likewise, Eisner (1988) stressed that ‘images’ guide our perception. What the artist and the creative scientist have in common is that both are makers of forms — one qualitative and the other theoretical — which offer us images of the world. Art and science offer schemata through which we both experience and represent the world. He criticizes the fact that the language of science and propositional forms of knowledge have been dominant in our research community. Not that he opposes to propositional language as such: “When terms are made conventional and the rules of syntax codified, the possibilities for shared meaning is increased” (p. 16.). He asserts, however, that knowledge should not be restricted to what one can claim. “When in our teaching, our curriculum and our research method we emphasize the prompt classification and labeling of objects and events, we restrict our consciousness and reduce the likelihood that the qualities of which those objects and events consist will be experienced”. “When tools do not invite further sensory exploration, our consciousness is diminished” (p. 17). Classrooms, schools, teaching episodes, students struggling to learn and others resisting to learn are emotionally charged slices of life, Eisner asserts, and the artistic treatment of forms of representation has the capacity to arouse such feelings. Eisner, thus, stresses that both art and science can be complementary in gaining understanding of the world. He believes that the hegemony of propositions has created a language of research that only researchers can understand. It is difficult to use this language to reconstruct images of the semantic context of

classroom life. Eisner states that such a language is actually “academically inappropriate” (p. 18).

Here lies one of the reasons why narrative research has become important in educational research. The narrative is an important means of capturing the richness and indeterminacy of teachers’ experience and the complexities of their understanding (Carter, 1995; Cochran-Smith, 1990; Connelly & Clandinin, 1990; Doyle, 1997). In acknowledging the importance of non-discursive forms of knowledge, arts-based research has entered our field (Barone & Eisner, 1997).

These developments are accompanied by closer relations between practitioners and researchers, and even by researchers becoming teachers (Eisner, 1988; Kelly, 2003; DBRC, 2003). Increasingly, researchers view social sciences as ‘clinical endeavors whose task it is to help move the educational system from malfunction to function and not, primarily, the assured contribution to a body of basic knowledge propositions (Zaritsky, Kelly, Flowers, Rogers & O’Neill, 2003; Toulmin, 1958, 2001).

These developments show that more and more, the issues have been addressed that made Lampert distinguish a practitioner’s view from the academician’s view. These developments show that we are heading toward a situation in which thought, action and personality belong together and in which both researchers and practitioners might come to work in the same domain and might use the same language. There is no room for paradoxes when ‘theory’ only concerns a discursive language. If, however, theory concerns the ideas that guide our actions and help frame practical problems, Lampert’s ‘image’ can be part of a theory. In the same way, we offer our paradoxes and the way we clarified them in the previous chapters to teachers in the hope that this perspective will help them gain understanding of their own situation.

Not all authors use the term ‘theory’ for this language; some prefer less pretentious terms such as models, stories, images — and we use the term ‘perspective’. They carry less pretension that the gathered insights are indisputably true, but hopefully, the result of this endeavor will be the more so useful in understanding education.

8.5 Conclusion: Teaching diverse learners requires thought, action and personality.

Above, we have rendered what it means for Lampert to work in an ambiguous situation. Our interviews lead us to believe that teaching diverse learners is also

Chapter 8
Embracing Opposites

such an ambiguous activity, much more complex than implementing any kind of teaching model. Therefore, we summarized it in three paradoxes. One can explain in the abstract what it implies to embrace paradoxes, as we did above. In 'managing dilemmas', however, one uses both the particulars of the situation as well as one's own personality. Opposing opposites is a practical activity that regards the teachers personality as a tool. Therefore, teachers cannot simply be 'trained' in teaching diverse learners. It is not a matter of prescribing some new technique. It cannot be managed from above. The topic of teaching diverse learners invites teachers to acknowledge as well as to embrace the paradoxes in their classroom and, like Lampert, use these dilemmas to decide who they want to be as persons.

9

Conclusions, Reflections and Discussion

Throughout our work, we have analyzed various aspects of the problems of teaching diverse learners. Our contribution can be summed up in the conclusion that teaching diverse learners involves dealing with paradoxes. It is more personal, more relational and less technocratic than often assumed.

9.1 Introduction

We begin this chapter with a summary of the conclusions of the work presented in chapters 3 through 8. Using these conclusions, we re-examine our original three research questions and provide the answers to these questions as developed in the body of this book. We conclude with a reflection on our research method and a discussion of the relevance of our work to the existing body of knowledge on teaching diverse learners.

9.2 Conclusions

This section provides brief summaries of the conclusions and principal results of the main chapters of this book.

Chapter 3: Objective observation of diverse learners.

Our study showed that the observation of students by teachers involve an interpersonal process. While interacting during lessons, this process involves negotiating meaning with students. All observations are framework dependent. We explained how teachers can learn to become objective observers by embracing of the *paradox between involvement and detachment*. On the one hand, teachers need to be involved with students and rely on the observational frameworks they have developed by experience. On the other hand, teachers need to detach themselves

from this involvement to clarify whether their previous assumptions (the frameworks they have developed thus far) correspond with what they observe. The social practice of teaching is essential in determining the adequacy of the observational frameworks.

We showed that high-end teachers actively develop frames of interpretation that help address practical problems (see, for instance, quote 3.7). Low-end teachers are either too involved (for example, they are swayed by their own feelings; see 3.1.), or too detached (for example, they claim that the diversity of students did not interest them at all; Section 2.4).

Chapter 4: Classroom evaluation of diverse learners

We showed that high-end teachers did not play the pedagogical and the measurement goals of evaluation against each other. We concluded that the two goals of evaluation form a *paradox* of two valuable goals, which cannot easily be reconciled. Our material showed that good teachers *use* this tension (see, for instance quote 4.19). These teachers embrace the *paradox between adaptation and provocation*: They actively play with the pedagogical opportunities of classroom evaluation to provoke students to achieve better. The active use of adaptation strategies enrich the teacher's toolbox of pedagogical instruments; it creates a way to try dragging students across the finish line. The development of connoisseurship by teachers is essential for using the adaptation strategies correctly. We concluded further that low-end teachers circumvent the tension between the two goals by focussing on the measurement goal; they take failing grades for granted and do not use adaptation strategies (see 4.4.1). These teachers miss a pedagogical opportunity and are not necessarily better measurers (see 4.5.3).

Chapter 5 and 6

We showed that in classes containing diverse learners (which is the case for any class), there is an imitation tendency at work between students. We showed that the imitation tendency supports learning but this does not automatically occur peacefully, nor does this automatically concern the intended learning process. As a result of this imitation tendency (which causes students to want 'the same' as others), we showed that teachers cannot just acknowledge individuality (for instance, by assigning customized work to students), for this may be interpreted as being unfair or inappropriate. Addressing diversity implies the embracing of the *paradox between individuality and communality*: to be able to address individuality, teachers must take group processes into account; at the same time, in order to contribute to a viable group process, they must take individuality into account. A

tension is likely to remain between different groups or between the individual and the rest of the group.

We concluded that low-end teachers only acknowledge one pole of the paradox. They either only acknowledge communality by reinforcing the uniformity pressure (see 6.8, 6.10, 6.17, 6.29) or they only acknowledge individuality while ignoring the effects of the group on the learning of individuals (see 5.3). We argued that high-end teachers embrace the paradox by being a sophisticated classroom manager: teachers who use the positive resources in the class, their personal qualities, their observational and organizational skills to contribute to a situation in which the imitation tendency is oriented towards the learning process (see quotes 6.9, 6.15, 6.22, 6.35, 6.36).

Chapter 7: An Evaluation of two models on teaching diverse learners

This chapter considered the interviews from the viewpoint of two models on teaching diverse learners. We showed that differentiation and integration are both important in teaching diverse learners. We concluded that a diagnosis of the local situation is necessary to determine whether differentiation is necessary and whether integration is possible. Local factors are very important in deciding how to embrace the *paradox between differentiation and integration*, a paradox that summarizes the paradoxes presented in Chapters 3, 4 and 6.

Chapter 8: Embracing opposites

In Chapters 3-7, we showed that teaching diverse learners is a matter of embracing opposites. Chapter 8 validated this view with reference to insights drawn from the literature. It described Palmer's views on the embracing of opposites (Palmer, 1998), which concurs with Lampert's view on the managing of dilemmas (Lampert, 1985). We concluded that embracing opposites is a practical activity, in which the personality of the teacher is a tool.

9.3 Re-Examining the Research Questions

Our study focussed on the following three questions:

- 1) What are the perspectives of teachers regarding teaching diverse learners: how do teachers describe the way in which they deal with the diversity in their own classes?
- 2) What is the relationship between the perspectives of practitioners and the literature on teaching diverse learners? Does the literature correspond with the perspectives of teachers and do the perspectives of teachers correspond

with the literature? Does a gap exist?

- 3) Is it possible to construct a new, practice-based perspective regarding teaching diverse learners that builds on the perspectives of teachers and the corresponding literature?

We address these questions by first considering question (1), then considering question (3) and concluding with question (2). This order is necessary because the answers for question (3) play a seminal role in addressing question (2).

Concerning our first research question about the perspectives of teachers regarding teaching diverse learners, the answer to this question can be found in the three main paradoxes on the imitation tendency, evaluation and observation developed in this book. We conclude that some teachers embrace the paradoxes described in chapters 3, 4 and 6, while other teachers only consider one pole of the paradoxes.

Concerning the third research question, our practice-based perspective explains why it makes sense to embrace the paradoxes and why there are good reasons to consider the teachers who do so as good teachers. The fact that sufficient literature was available to construct this perspective demonstrates a correspondence between the world of certain researchers and the world of practitioners. It reflects the deep interest that certain researchers take in the world of teachers and the contribution of practitioners to the educational literature.

The key aspect of answering question (2) on whether a gap between the perspectives of practitioners and the perspectives in the literature exists concerns the inability of the dominant paradigm to capture the paradoxical character of education. The dominant paradigm is geared towards formulating prescriptions (based on 'true' knowledge) that make education work (Feuer, Towne & Shavelson, 2002; Onderwijsraad 2003)¹. Obviously, the world of paradoxes in which the 'right' solution does not exist, differs from the world in which success is guaranteed if certain prescriptions are applied.

Viewed from the perspective of teachers, the dominant approach supports an either/or attitude, or as Palmer (1998) calls it 'binary thinking'. The prescriptions derived from the dominant approach tend to be one-sided, as Lampert (1985) noted. Paradoxes that call upon the teacher's conflicted self as a tool do not fit within the dominant approach. Paradoxes require the addressing of local factors

1. Recently, at the Dutch government's request, the Education Council (2003) studied why research results are hardly ever used by practitioners. To answer this question, however, the Council did not consult teachers.

and of the particulars of the situation; teachers do so in their own personal way. The paradoxical character of education shows that general prescriptions from outsiders are hardly relevant. This demonstrates a gap between theory and the practice of (good) teachers.

Binary thinking also dominates considerations on the topic of teaching diverse learners. In the Netherlands, teaching diverse learners is associated with adaptive teaching; adaptive teaching is viewed as a preferred antagonist of group-based whole class education (Inspectie, 1994, 1997, 1999). The educational insights that presently prevail in the Netherlands, thus, favor differentiation over integration and tend to overlook the importance of communality in learning.

While a gap between theory and practice exists, it is not insurmountable. In the section "Developments in our field" on page 176, we described a movement in which both researchers and practitioners might come to work in the same domain and use the same language. It offers an alternative to the dominant approach. While the dominant paradigm views practice as applied theory, this movement views practice as an activity that *generates* theory and that views the connoisseurship thus developed as being essential in dealing with the paradoxes. Although this movement is gaining visibility, it does not dominate our field. Therefore the gap between theory and practice continues to be a serious problem.

9.4 Reflections on Method

This section contains a set of reflections on our research method and we consider the limitations of this study.

9.4.1 Method

This study was conducted using the methods of narrative inquiry (Elbaz 1997). We conducted a series of interviews that were structured as open conversations. Each interview was based on a flexible format with considerable room for teachers to elaborate on the aspects of teaching diverse learners that they thought important. We chose this method of study because we did not want an *a priori* restriction on the question set to influence the results of the conversations. We wanted to give teachers a voice. We believed that their spontaneous stories could give clues and insights that had not been previously addressed. In this respect, we feel that our method has borne fruit. This was particularly true for our devel-

opment of patterns about — and dealing with — the imitation tendency: the conversations yielded insights on the complexity of a teacher's classroom work that had not been emphasized in the literature in this context. We analyzed the results of our conversations using existing theories and studies from the literature. These theories enabled us to put the 'clues' from the interviews in a coherent framework.

9.4.2 *Limitations*

Although we have done our best to provide a comprehensive and relevant survey of the problems of teaching diverse learners, our study has a number of general limitations that should be noted. Some of them have been discussed in Chapter 2 (see "Reflection on the Subjectivity of the Researcher" on page 23). Other limitations include:

- *Times and topics change*: Since the narrative material used in this thesis was collected, several innovations have taken place in Dutch secondary education. As a result, if the same interviews were conducted today, they may emphasize different details or problems. For example, problems dealing with race, religion and ethnicity did not play a major role in our interviews, but would probably receive more attention now. This does not invalidate the perspectives gained from our interviews; while the individual nature of the problem may change over time, the existence of problems among diverse learners is universal, as are the topics addressed in our research: observation and evaluation, the imitation tendency and dealing with paradoxes. Nevertheless, more aspects of teaching diverse learners than captured in these paradoxes may be relevant for teachers.
- *The Dutch educational system*: This study was conducted in the context of the Dutch secondary educational system. The perspectives of teachers have been formed under the condition of (among other factors): external standards that require selection and the teaching of many subjects which implies that our teachers only see their classes three or two times a week. A critical analysis of these conditions would have required a different study. While no attempt has been made to explicitly determine relevance to other systems, we feel that the main limitation of the application of our work in an international context is the self-evident acceptance of national standards in secondary education. For systems in which these standards do not exist, the problems of diversity

may take on a different character.

- *This study is written in English:* In order to reach the widest possible audience, this study has been written in English. As a non-native speaker, this brings with it subtle problems of formulation that may limit aspects of over-all information transfer. This applies particularly to the translations of teacher quotations: while we are very pleased with the quality of translation, there are always aspects of meaning that cannot be fully conveyed in a second language. Writing for an international forum, moreover, implies that the conceptualization as well as the interpretation may shift from specific, local frames to more general and abstract frames. (In this study, for instance, we have used the term ‘teaching diverse learners’, a term that most Dutch would immediately associate with adaptive education, formerly called internal differentiation. We avoided this term, because we surmised that the American reader would not have positive associations with this interpretation of teaching diverse learners.)
- *Validity of results:* This study is based on a sample of 25 teachers. While our sample is large compared to what is common in qualitative research, it is only a fraction of the teacher population. Further study is required to validate our results in a broader context. This validation must be aimed at determining whether our perspective is sufficiently rich to help teachers frame their own situation, and thus see more than they could have without our work.
- *Relevance for teachers:* As an extension to the point on validity, above, this study has been written about teachers, but the present version has not been written *for* teachers. In order to be accessible and useful, a popular version of this work is required. This work should be written in Dutch and in the daily language of the practitioners.
- *Perspectives are limited:* Our study is not based on observation of how teachers deal with diverse learners, but is directed to their perspectives: how they perceive their own practice. While these perspectives are essential in understanding teaching, more ways of looking at teaching diverse learners would have been possible that could have helped us gain insight concerning this topic.
- *One researcher is limited.* As explained in Chapter 2, “Reflection on the Subjectivity of the Researcher” on page 23, the frames of interpretation of the author of this book were necessary in creating the perspective

presented in this book. Partly as a consequence of practical constraints, the data gathering and analyses were conducted by one researcher. Other researchers might have discovered different significant issues in the interviews.

The work presented here is not intended to provide a complete, closed solution to the problem of teaching diverse learners. Instead, we see our contribution as a step in a longer process of helping educators understand (and cope) with their environment.

9.5 Discussion on the Value of Our Results

Our study demonstrates that the perspectives of practitioners are necessary in gaining educational insights. This confirms the claim within narrative inquiry that the perspectives of teachers are an essential component in understanding the process of education.

The conclusions summarized in section 9.1 (and developed throughout this work) extend existing insights in several ways. In Chapter 3, we showed that the observation of students — gauging students adequately — requires connoisseurship. Gauging students is a problem of interpretation and explanation and finding out in practice whether one's interpretation works. It is far more complex than just imposing high expectations on students.

In Chapter 4, we showed that classroom evaluation of students is far more complex than just the application of the straight unequivocal methods of measurement. It involves the balancing of sometimes contradictory goals and the development of connoisseurship. At the same time, classroom evaluation offers possibilities for reconciling the pedagogical and the measurement goal that are often hardly recognized.

In the Chapters 5, 6 and 7, we showed that teaching diverse learners is more complex than just the abolishment of a tracked system. The differences between students do not disappear when the tracks disappear. Teaching diverse learners, moreover, is more complex than the implementation of a certain teaching model for adaptive teaching. While we agree with the assumption in the literature that learning is a social process, this assumption should not lead to romantic views as if a viable learning community arises naturally. The encouragement such a community is an utterly complex process for which sophisticated management skills are necessary. The assumption that learning is social, moreover, does not imply that room for diversity among students is natural. (Aggressive) rivalries may

disturb classroom order, or may distract students from the intended learning process. Attributing a lack of room for diversity in classrooms to teacher prejudice is simplistic and unfair. While teachers have the task of teaching students to become humane, the teacher cannot be assigned the total responsibility for resolving human frailty. A viable learning climate in schools should be viewed as a common cultural achievement of teachers and students (and the rest of society) together.

In Chapter 8, we elaborated on the paradoxical character of teaching diverse learners and of the educational reality in general. While in the name of the 'right' scientific solution, many attempts have been made to encourage teachers to address only one pole of the paradoxes, many teachers — especially good teachers — feel that this does not correspond with the way in which they view their own responsibility. Often, a single, complete solution cannot be found. Instead, dilemmas must be 'managed'. This management process is a practical and a personal process.

Throughout our work, we have analyzed various aspects of the problems of teaching diverse learners. Our contribution can be summed up in the conclusion that teaching diverse learners involves dealing with paradoxes. It is more personal, more relational and less technocratic than often assumed.

9.6 Closing Comments

Our study highlights the complexity of teaching diverse learners. In doing so, it underscores the necessity of studying education close to its source. Teachers and researchers need to work in the same universe of discourse (Eisner, 1988). In order to remain in close contact with the problems of practice, education faculties should use the model of the academic hospital, in which researchers work as practitioners. Educational researchers should be practical connoisseurs.

The problems of teaching diverse learners are too complex to be addressed by prescriptions from outsiders. Research should focus on finding explanation for local problems encountered during the actual application of the teaching craft.

Our study emphasized the importance of the teacher's personality. This aspects rings true to many people inside and outside education, but it is a topic that has not received much attention. Further studies should focus on whether and how teachers can be supported to develop their teaching personality.

By confronting theory with practice, on the one hand we have shown that theoretical deepening of the perspectives of teachers is necessary to gain under-

standing on teaching diverse learners. On the other hand, we also have shown that the experience of practitioners and accepted views of teaching diverse learners do not always share a common ground. While referring to a practitioner's experience concerning this discrepancy, Eisner (1988) stresses that this discrepancy can breed a sense of alienation: practitioners feel torn between the two worlds. We recommend a study on the social consequences of the discrepancy theory and practice, particularly on whether this alienation contributes to teacher shortages.

10

Samenvatting

Aan de hand van het onderwerp 'omgaan met verschillen' wordt in dit onderzoek de relatie tussen theorie en praktijk bestudeerd. Ons onderzoek gaat uit van praktijkverhalen van 25 leraren, plaatst hun uitspraken in een theoretisch kader en ontwikkelt zo een praktijkgericht perspectief met betrekking tot omgaan met verschillen.

Inleiding

Dit onderzoek is gebaseerd op 25 verhalen van ervaren leraren Engels en biologie die lesgeven in de eerste fase van het voortgezet onderwijs in een klas waarin twee of meer niveaus zijn samengevoegd. De verhalen zijn het resultaat van gesprekken, waarin leraren zijn uitgenodigd om hun ervaringen te delen ten behoeve van beginnende leraren. De volgende onderzoeksvragen staan centraal:

- 1) Wat zijn de perspectieven van leraren met betrekking tot omgaan met verschillen? Met andere woorden: hoe beschrijven leraren de manier waarop zij in hun klassen omgaan met verschillen?
- 2) Wat is de relatie tussen de perspectieven van leraren en de literatuur over omgaan met verschillen? Komen de perspectieven overeen met de literatuur en komt de literatuur overeen met de perspectieven? Bestaat er een kloof?
- 3) Is het mogelijk om (elementen van) een nieuw praktijkgericht perspectief met betrekking tot omgaan met verschillen te formuleren, dat gebaseerd is op de perspectieven van leraren en de overeenkomstige literatuur?

Dat we gekozen hebben om juist die leraren uit te nodigen in wiens klassen twee of meer niveaus zijn samengevoegd, geeft aan dat wij onder 'verschillen' ook niveauverschillen tussen leerlingen verstaan. Tijdens de gesprekken konden leraren zelf aangeven of ze verschillen belangrijk vonden en zo ja, welke verschillen ze belangrijk vonden. Op niveauverschillen werd het meeste ingegaan, hetgeen aansluit bij een opmerking van Cohen (1995), die benadrukte dat niveauverschillen de invloedrijkste statuskenmerken zijn in het onderwijs van-

wege hun duidelijke relatie met de activiteiten in de klas. Vandaar dat dit onderzoek zich met name concentreert op de manier waarop leraren omgaan met niveauverschillen in de klas.

Methoden van onderzoek

Een narratieve benadering biedt de mogelijkheid om te weten te komen welke vragen voor leraren belangrijk zijn, hoe ze situaties interpreteren en vanuit welke achtergrond zij situaties in de klas proberen te verbeteren (Carter, 1995; Cochran-Smith, 1990; Connelly & Clandinin, 1990; Doyle, 1997). Door middel van conversaties met leraren (Florio-Ruane, 1991) hebben we geprobeerd hun perspectieven boven tafel te krijgen. Onze studie gaat uit van een verklarend narratief paradigma. Dit paradigma onderscheidt zich van het beschrijvende narratieve paradigma in die zin dat de verklaringskracht van de verhalen van leraren gebruikt wordt om tot een nieuw perspectief te komen. Dit nieuwe perspectief kan mogelijk andere leraren helpen meer grip te krijgen op omgaan met verschillen.

De leraren uit dit onderzoek zijn afkomstig van 16 verschillende scholen. Wij zijn met hen in contact gekomen doordat we scholen gevraagd hebben of een docent Engels en/of biologie mee wilden doen aan een onderzoek naar de praktijkkennis over lesgeven aan heterogene klassen. Omdat praktijkkennis vaak onbewust aanwezig is (Feiman-Nemser & Floden, 1986; Schön, 1983) hebben we de leraren gevraagd om voorafgaande aan het interview aan de hand van hun eigen praktijk alvast na te denken over de vraag of verschillen in de klas een rol speelden bij de manier waarop ze lesgeven.

Tijdens die conversaties hebben we de leraren de gelegenheid gegeven om zoveel mogelijk hun eigen verhaal te vertellen. We hebben voor deze open opzet gekozen omdat we rekening hielden met het feit dat leraren iets te zeggen hadden dat nog niet bekend was. Wel hebben we het gesprek gestructureerd door middel van een beperkt aantal topics die afkomstig waren uit het model didactische analyse. Tegelijkertijd werd benadrukt dat leraren niet persé iets met verschillen *hoefden* te doen. We hebben geprobeerd duidelijk te maken dat juist de authentieke ervaring van degene die in de praktijk werkzaam is van belang is bij het ontwikkelen van onderwijs ten behoeve van beginnende leraren.

De interviews zijn op band opgenomen, uitgetypt en verwerkt in a priori- en voorlopige a posteriori-categorieën. Daarna is er naar 'significante' patronen gezocht: (vergelijkbare) uitspraken die door een groot aantal leraren gedaan waren over een belangrijk onderwerp. Deze uitspraken zijn in een theoretisch raamwerk geplaatst. Met behulp van de patronen en de corresponderende theorie is een praktijkgericht perspectief geformuleerd.

Objectief observeren van verschillen.

De perspectieven laten zien dat leraren persoonlijk betrokken zijn in de situaties die ze observeren; ze beïnvloeden deze situaties actief doordat ze handelend in die situaties aanwezig zijn. Bovendien maken ze bij het inschatten van leerlingen gebruik van hun eerdere ervaringen. Hoe moet dit kader de 'objectiviteit' van hun observaties worden beschouwd? Om deze vraag te beantwoorden hebben we het concept objectiviteit nader onder de loep genomen. Moderne epistemologische inzichten laten zien dat observaties transacties zijn van de interpretatiekaders van mensen enerzijds en het object van observatie anderzijds (Newell, 1986, Eisner, 1992). Het gaat niet zozeer om het elimineren van menselijke interpretatiekaders — want dat is onmogelijk — maar om het verfijnen van het menselijke element.

Reflectie op ervaringen in het verleden kan helpen om observaties in het heden te duiden (Schön, 1983). Het aangescherpte waarnemingsvermogen dat voortkomt uit langdurige praktische ervaring noemen we in navolging van Eisner (1991) *practical connoisseurship*. Daarbij duidt Eisner op het vermogen zoals een kunstkenner of een wijnkenner dat heeft verworven door heel veel kunst te zien of heel veel wijn te proeven. Leraren kunnen 'connoisseur' worden doordat ze intensief met (allerlei verschillende) leerlingen bezig zijn.

Door zich intensief met iets te zijn en tegelijkertijd afstand te nemen van de manier waarop ze dat zijn, kunnen mensen volgens Eisner en Newell objectiviteit *leren*. Mits leraren actief nagaan of hun interpretaties kloppen met hun waarnemingen en reflecteren op de manier waarop hun eigen belangen en gevoelens hun observaties kleuren, verkeren ze in een gunstige positie om verschillen tussen leerlingen objectief waar te leren nemen. Leraren opereren immers dichtbij het object van observatie. Objectieve observatie van verschillen in de klas gaat dus gepaard met het verenigen van de polen van de *paradox tussen deelname en distantie*: aan de ene kant moet de observant gedurende langere tijd dichtbij het object van onderzoek opereren — de leraar moet ervaring opbouwen — aan de andere kant moet de observant (de leraar) afstand kunnen nemen van de manier waarop hij of zij in de situatie betrokken is.

Goede leraren honoreren de paradox tussen deelname en distantie. Minder goede leraren honoreren slechts een pool van de paradox. Ze zijn of te betrokken (bijvoorbeeld laten ze zich meeslepen door hun eigen gevoelens) of ze zijn te gedistantieerd (ze interesseren zich bijvoorbeeld niet voor verschillen).

Evalueren van verschillen in de klas

De perspectieven laten zien dat veel leraren bij evaluatie van de leerresultaten van leerlingen gebruik maken van adaptatiestrategieën die bedoeld zijn om onvoldoendes te vermijden. De actieve manier waarop adaptatiestrategieën worden toegepast probeert zwakke leerlingen 'mee te slepen', zodat deze leerlingen alsnog de voorgeschreven normen halen. De passieve manier houdt in dat lagere normen worden toegepast (bijvoorbeeld die van het laagste niveau in de heterogene klas) om te voorkomen dat leerlingen gedemotiveerd raken. Zowel vanuit een pedagogische kijk op evaluatie als vanuit een psychometrische kijk op evaluatie met het oog op selectie zijn we nagegaan of het gebruik van adaptatiestrategieën juist is. Op grond van de literatuur concluderen we dat beide doelen van evaluatie minder diametraal tegenover elkaar staan dan vaak wordt gesuggereerd. Leraren die de adaptatiestrategieën op een actieve manier toepassen, honoreren beide doelen. Ze proberen de polen van de *paradox tussen adaptatie en provocatie* te verenigen. Daarbij sluiten ze in feite aan bij de conclusie van onze literatuurstudie, dat beide doelen waardevol en ook niet helemaal van elkaar te scheiden zijn. Bij het gebruik van adaptatiestrategieën is het wel belangrijk dat leraren een goed interpretatiekader hebben ontwikkeld van het niveau dat leerlingen horen te bereiken. In de conversaties verwijzen diverse leraren naar het bestaan van dergelijke interpretatiekaders, die ontstaan zijn door ervaring. Ook de moderne literatuur over evaluatie benadrukt het belang van de ontwikkeling van zo'n interpretatiekader (een 'gevoel voor niveau'), met name ten behoeve van het evalueren van creatieve vaardigheden. In navolging van deze literatuur concluderen we dat het zeer frequent *zien* van het werk van leerlingen in relatie tot de eindexamennormen de basis is waarop zich het interpretatiekader ontwikkelt waar leraren hun adaptaties op afstemmen. Dit interpretatiekader is essentieel om adaptatiestrategieën op een verantwoorde manier toe te kunnen passen. Ook hier blijkt het dus belangrijk dat leraren zich ontwikkelen als *connaisseurs*.

Goede leraren honoreren de *paradox tussen adaptatie en provocatie*. Ze gebruiken evaluatie als middel om leerlingen te stimuleren om beter te presteren. Zo verkrijgen ze extra informatie over leerlingen; daarom is het aannemelijk dat dit ook het selectieproces ten behoeve vervolgonderwijs ten goede komt. Kortom, het ligt voor de hand dat het gebruik van adaptatie strategieën ook het doel van de meetfunctie, namelijk een goede selectie, dient. Minder goede leraren honoreren alleen de pool provocatie. Ze honoreren alleen de meetfunctie van evaluatie en nemen onvoldoendes voor lief. Onze analyse laat zien dat de meetresultaten van deze leraren niet noodzakelijk beter hoeven te zijn.

De imitatietendens tussen leerlingen

Leraren merken dat leerlingen de neiging hebben om elkaar te imiteren: ze willen hetzelfde als andere leerlingen. Daarom zien sommige leraren geen kans om individuele verschillen tussen leerlingen te honoreren, want zodra de ene leerling anders behandeld wordt dan de andere zeggen leerlingen dat dat 'niet eerlijk' is. Leerlingen in een uitzonderingspositie, bijvoorbeeld degenen die hoge cijfers halen, krijgen al gauw negatief commentaar (*Hé leerpik*) van andere leerlingen, wat uit kan lopen op pesten. Anderzijds merken leraren ook op dat de imitatietendens het leerproces kan ondersteunen. Als bepaalde leerlingen hun werk af hebben, willen anderen hun werk ook afmaken. Als leerlingen zien dat andere leerlingen goede cijfers halen, willen ze vaak zelf ook een goed cijfer hebben. Veel leraren zijn van mening dat de zwakke leerlingen zich zo optrekken aan de betere leerlingen.

De perspectieven van leraren komen overeen met de sociale vergelijkingstheorie waarin Festinger(1954) spreekt over een uniformiteitsdruk en met Girard's (1965) mimetische hypothese, waarin hij spreekt van een imitatietendens. Op grond van deze literatuur en de perspectieven van leraren concluderen we dat dit sociale element het leerproces kan ondersteunen zoals dat ook benadrukt wordt door de sociaal constructivistische literatuur (Scamardalia & Bereiter 1989; Resnick, Levine, & Teasley, 1991; Palincsar, 1998, Reigeluth, 1999, Rogoff 1991, Prawat, 1992; Vygotsky, 1979); echter het sociale element ondersteunt niet automatisch het *bedoelde* leerproces en kan bovendien gepaard gaan met (agressieve) rivaliteiten.

Omgaan met de imitatietendens tussen leerlingen

De perspectieven van leraren laten zien dat sommige leraren het gevoel hebben dat ze geen ruimte hebben om met verschillen om te gaan: leerlingen stellen het niet op prijs wanneer ze anders dan andere leerlingen behandeld worden. Andere leraren ervaren juist wel ruimte om met verschillen om te gaan; in hun klas wordt extra hulp bijvoorbeeld wel op prijs gesteld.

Aan de hand van de literatuur verklaren wij dit verschil vanuit de richting van de imitatietendens. Wanneer leerlingen de extra hulp van een leraar op prijs stellen (bijvoorbeeld omdat zij dan mogelijk ook een goed cijfer halen), dan geeft dit aan dat de imitatietendens op het leerproces is gericht. De leraren die aangeven dat zij goed uit de voeten kunnen met volledig heterogene klassen (zij het met compromissen tussen de belangen van de verschillende groepen) zijn leraren uit wier verhalen duidelijk wordt dat de imitatietendens georiënteerd is op

het bedoelde leerproces. Als zwakken het echter 'stom' vinden om te melden dat ze iets niet snappen, of als sterke leerlingen gaan onderpresteren om bij de groep te horen, geeft belemmert het groepsproces het bedoelde leerproces. Met andere woorden: de imitatietendens is niet op het leerproces georiënteerd. Een van de geïnterviewde leraren geeft aan dat zijn school de heterogeniteit van 4 lagen heeft afgeschafte juist vanwege bezorgdheid om de goede leerlingen, die buiten de groep vielen.

Uit onze verhalen blijkt dat sommige leraren toegeven aan de uniformiteitsdruk door iedereen op dezelfde manier te behandelen. Ze doen dat niet omdat ze een bepaalde opvattingen hebben over verschillen, zoals zo vaak wordt aangenomen, maar ze doen dit om onvrede te voorkomen die de orde verstoort en uiteindelijk kan leiden tot pesten. De leraren die de uniformiteitsdruk bevestigen verkeren in goed gezelschap: ook Festinger nam aan dat uniformiteit tot sociale rust zou leiden.

Andere leraren hebben meer geavanceerde manieren om met de imitatietendens om te gaan. Wie goed leest, ontdekt dat aspecten van deze manier al beschreven staan in de literatuur over klasmanagement (Doyle, 1986). Die geavanceerde manier komt erop neer dat leraren van meet af aan het gedrag van de leerlingen goed in de gaten houden. Ongewenst voorbeeldgedrag proberen deze leraren te voorkomen; indien het toch zichtbaar wordt, corrigeren zij het zo onzichtbaar mogelijk, terwijl het gewenste gedrag de volle aandacht krijgt. Tegelijkertijd hebben deze leraren voldoende autoriteit om agressieve rivaliteiten te voorkomen. Volgens de literatuur over klassenmanagement kan er op een gegeven moment in de klas een 'kracht' ontstaan die de gebeurtenissen en participanten meesleept in de goede richting (Merritt, 1982). Met andere woorden: door een geavanceerde manier van klassenmanagement dragen leraren bij aan een situatie waarin leerlingen een voorbeeld aan elkaar nemen in het positieve. Dan ontstaat er een kracht waarin het positieve het positieve bekrachtigt. Effectiviteitsonderzoek laat zien dat zwakke leerlingen in klassen met een hoger klassegemiddeld iets beter scoren dan in klassen met een minder hoog klassegemiddelde (Dar & Resh, 1985, 1986; De Vries & Guldemond, 1994; Hallinan & Kubitschek, 1999; Guldemond & Meijnen, 2000; Terwel, Gillies, Van den Eeden & Hoek, 2001; Terwel & Walker, 2004). Het hierboven beschreven proces kan ten grondslag liggen aan dit positieve effect.

Is de imitatietendens eenmaal gericht op het leerproces, dan past hulp van de leraar aan individuen binnen het gezamenlijk streven van de groep. Toch blijft er een spanningsveld tussen individu en gemeenschap bestaan. Goede leraren

gaan bewust de confrontatie met dat spanningsveld aan. Ze hebben aandacht voor het individu met het oog op integratie in de gemeenschap; zijn als het ware opgewassen tegen de uniformiteitsdruk. Goede leraren proberen dus de polen van de *paradox tussen individualiteit en gemeenschappelijkheid* te verenigen. Minder goede leraren geven of toe aan de uniformiteitsdruk of ze zien alleen het individu. Het groepsproces ontgaat hen.

Modellen uit de theorie over omgaan met verschillen

De literatuur bevat zeer veel studies over omgaan met verschillen. We hebben twee modellen geconstrueerd die globaal de belangrijkste visies samenvatten: het technocratische-adaptieve model dat de noodzaak van individualisering van het onderwijs benadrukt (Reigeluth, 1999; Terwel & Hooch Antink, 1996) en het interactieve-inclusieve model dat de noodzaak gezamenlijk leren benadrukt (Cobb & Bowers, 1999; Brown, 1994; Lampert, 1990; Ball, 1993; Bielaczyc & Collins, 1999; Resnick, 1987 en Prawat, 1992). Een vergelijking tussen deze modellen met de perspectieven van leraren alsmede een nadere analyse van de literatuur leren dat beide elementen noodzakelijk zijn: omgaan met verschillen vraagt dat de polen van de *paradox tussen differentiatie en integratie* worden verenigd. Individualistische opvattingen over onderwijs vergeten vaak dat er een stimulans uit kan gaan van het samen bezig zijn; inclusivistische opvattingen vergeten vaak dat niet iedereen aansluiting vindt in de gemeenschap, wat differentiatie noodzakelijk maakt. Vaak wordt adaptief onderwijs gezien als een 'betere' manier van onderwijs dan klassikaal onderwijs. Ons perspectief benadrukt echter dat in de concrete situatie eerst vastgesteld moet worden of integratie mogelijk is en of adaptatie nodig is. Daarom kan in het algemeen niet aangegeven worden hoe omgaan met verschillen er uit hoort te zien, noch welke rol leraren daarbij dienen te spelen.

Tegenstellingen verenigen

Samengevat hebben leraren die lesgeven aan klassen met niveauverschillen te maken met de volgende paradoxen: De paradox tussen *deelname en distantie*, de paradox tussen *adaptatie en provocatie* en de paradox tussen *individualiteit en communaliteit*. Omgaan met verschillen confronteert de leraar dus met de paradox tussen *differentiatie en integratie*.

De aanwezigheid van paradoxen in de pedagogische werkelijkheid is niets nieuws. Al in 1927 beschreef Theodor Litt zijn beroemde boek *Führen oder Wachsen Lassen*, waarin hij laat zien dat beide elementen — hoewel ze elkaar tegenspreken — van belang zijn in de opvoeding. Ook Magdalene Lampert heeft duidelijk gemaakt dat practici vaak op dilemma's stuiten, waarin twee tegen-

strijdige doelen allebei gerealiseerd moeten worden. In zo'n situatie is er geen 'juiste' oplossing. Lampert beschrijft hoe het innerlijk conflict dat zo'n dilemma veroorzaakt leraren voor de vraag plaatst 'wie ze willen zijn als persoon'. Ze laat zien dat een leraar het vermogen heeft om integer te handelen terwijl beide tegenstrijdige doelstellingen serieus genomen worden. Het verenigen van paradoxen is dus een praktische activiteit, waarbij de leraar zijn of haar eigen persoonlijkheid inzet. Het lijkt erop dat de goede leraren die wij geïnterviewd hebben de paradoxen verenigen op de manier zoals Lampert dat beschrijft.

De vraag is echter of een paradox thuishoort in een onderwijskundige theorie. Binnen een logisch-paradigmatische benadering kan dat niet. Maar binnen een narratieve benadering wel.

Conclusie, reflectie en discussie

Onze studie was bedoeld om drie vragen te beantwoorden. (1) Wat zijn de perspectieven van leraren met betrekking tot omgaan met verschillen? (2) Wat is de relatie tussen de perspectieven van leraren en de literatuur over omgaan met verschillen? Bestaat er een kloof? (3) Is het mogelijk om (elementen van) een nieuw praktijkgericht perspectief over omgaan met verschillen te formuleren, dat gebaseerd is op de perspectieven van leraren en de overeenkomstige literatuur?

Het antwoord op de eerste vraag is gegeven met de drie paradoxen, waarbij sommige leraren beide polen van de paradox proberen te verenigen terwijl andere leraren slechts één van beide polen honoreren. Ons nieuwe perspectief op omgaan met verschillen (vraag 3) geeft aan waarom het *zinnig* is om met beide polen van de paradox rekening te houden in plaats van zich te beperken tot één van de polen. Het feit dat dit perspectief mede met behulp van de literatuur geconstrueerd kon worden, laat zien dat er overeenstemming bestaat tussen de perspectieven van leraren en de perspectieven van bepaalde onderzoekers. Dit weerspiegelt de belangstelling van bepaalde onderzoekers voor de praktijk en de bijdrage van leraren aan de literatuur.

Toch laat onze studie zien dat er wel degelijk een kloof tussen theorie en praktijk bestaat. Het dominante paradigma binnen de onderwijswetenschap is gericht op het vinden van algemene voorschriften die effectief onderwijs garanderen (Feuer, Towne & Shavelson, 2002; Onderwijsraad 2003)¹. De paradoxale wereld waarin 'juiste' oplossingen niet bestaan verschilt van de wereld waarin

1. Op verzoek van het ministerie van onderwijs heeft de Onderwijsraad (2003) onlangs onderzocht waarom resultaten van onderzoek zo weinig gebruikt worden door praktici. Leraren werden echter voor deze studie niet geraadpleegd.

succes wordt verzekerd door de toepassing van bepaalde voorschriften. Binnen deze laatste (en dominante) benadering is 'praktijk' hetzelfde als 'toegepaste theorie'. Deze benadering is echter voor leraren niet van toepassing. Onze analyse sluit aan bij de stelling dat praktijk juist theorie *genereert*: praktische ervaring die leraren tot *connaisseurs* maakt is nodig om te beoordelen wanneer welke pool van de paradox prioriteit verdient — en zelfs dan blijft er een spanningsveld bestaan.

Het dominante paradigma zet leraren aan om te kiezen tussen een van beide polen van de paradoxen. Ook Lampert (1985) heeft dit aangegeven. Ook voor wat betreft het thema omgaan met verschillen is deze óf/óf benadering wijd verbreid. In Nederland wordt omgaan met verschillen geassocieerd met adaptief onderwijs, dat weer wordt gezien als een duidelijk zichtbare andere vorm van onderwijs dan klassikaal onderwijs. Van deze nieuwe, meer op het individu geënte vorm van onderwijs wordt bovendien aangenomen dat hij beter is dan de oude klassikale benadering (Inspectie, 1994, 1997, 1999, Terwel & Hooch Antink, 1996). Individualisering wordt dus tegenover gezamenlijkheid gesteld. Onze studie laat echter zien dat beide elementen belangrijk zijn en niet tegen elkaar uitgespeeld moeten worden. De kloof tussen theorie en praktijk wordt vooral belichaamd door eenzijdige voorschriften die geen recht doen aan de complexiteit van de classesituatie.

Tegelijkertijd laat onze studie zien dat er in de onderwijskunde een beweging is ontstaan waarin dit probleem in toenemende mate wordt onderkend. Binnen deze beweging worden de perspectieven van leraren als onmisbaar geacht voor het verwerven van inzicht in onderwijs, een uitgangspunt dat door onze studie bevestigd wordt. Binnen deze beweging worden steeds meer onderzoekers ook zelf leraar.

Omgaan met verschillen in de klas is dus een minder technocratisch gebeuren dan vaak wordt aangenomen. Juist omdat het gaat om het vinden van een balans in situaties waarin tegenstrijdige doelstellingen allebei serieus genomen moeten worden, kan niet van buitenaf worden bepaald hoe een leraar moet omgaan met verschillen. Dat moet in iedere concrete situatie steeds opnieuw uitgevonden worden en iedere leraar zal dat op zijn of haar eigen persoonlijke manier moeten doen.

Het door ons geconstrueerde perspectief was bedoeld om leraren te helpen om meer grip te krijgen op klassen die (tot op zekere hoogte) heterogeen zijn. Nader onderzoek is nodig om vast te stellen of dit ook inderdaad het geval is.

Chapter 10
Samenvatting

11

Curriculum Vitae

Jacqueline Bulterman-Bos was born in 1961 in the hamlet of Ederveen in the city of Ede (Gelderland, the Netherlands). She studied clinical educational theory at Utrecht University, receiving her Master's degree in 1987. During her studies, she also worked for the NCRV, part of Dutch Public Radio, as a program writer and presenter. In 1986 she became a teacher of mathematics/statistics and social sciences in secondary vocational education in Zwolle, where she also worked as a guidance counsellor. In 1990, she started research in association with the IDO-VU in Amsterdam. At Windesheim University of Professional Education in Zwolle, she became a teacher trainer for secondary education and a researcher. In 1993/1994, she spent a year as a visiting scholar at Brown University in Providence, RI, USA. Presently, she teaches at the Vrije Universiteit in Amsterdam. In addition to her work experience, she has served as city council member in Lelystad, advisor Internet Ethics for Oratrix Development (a high-tech start-up in Amsterdam) and is director of a school choir in Amsterdam. Together with her husband, she has two children.

Chapter 11
Curriculum Vitae

A

Tables

A.1 Teachers Interviewed (By Name, Sex, Subject and Streams)

Name	Sex	Subject	Streams
<i>Akkermans</i>	Female	Biology	2
<i>Bloem</i>	Male	Biology	2
<i>Bogaard</i>	Male	English	3
<i>Braas</i>	Male	English	3
<i>De Hond</i>	Male	English	4
<i>Dorrestein</i>	Male	English	2
<i>Gerhard</i>	Female	English	2
<i>Heerma</i>	Male	English	4
<i>Koning</i>	Female	English	2
<i>Langen</i>	Male	English	2 (was 4)
<i>Messen</i>	Male	English	2
<i>Morssink</i>	Male	Biology	3
<i>Pronk</i>	Female	English	4
<i>Schipper</i>	Male	Biology	2
<i>Siebelink</i>	Male	Biology	2
<i>Smit</i>	Male	English	2
<i>Tulp</i>	Female	Biology	2
<i>Van Boven</i>	Male	Biology	3
<i>Van Dijk</i>	Female	English	4
<i>Veling</i>	Male	Biology	3
<i>Vink</i>	Female	English	3
<i>Visser</i>	Male	English	2
<i>Vogel</i>	Female	English	3
<i>Winter</i>	Male	English	2
<i>Wolf</i>	Female	Biology	4

Appendix A
Tables

B

References

- Airasian, P.W. (1991). Perspectives on measurement instruction. *Educational Measurement: Issues and Practice*, 19(1), 13-16.
- Airasian, P.W. (1994). *Classroom Assessment (2nd ed.)*. New York: McGraw-Hill.
- Alberts, R. (1987). Professionalisering van docenten op het vlak van evaluatie (Professional development of teachers concerning evaluation). In Th. Bergen, J. Giesbers & C. Morsch (Ed.), *Professionalisering van onderwijsgeevenden* (Professional development of teachers). Lisse, the Netherlands: Swets & Zeitlinger.
- Alberts, R. (1991). Professionalisering van de evaluatiepraktijk (Professional development of evaluation practice). *Tijdschrift voor lerarenopleiders*, 12(3), 44-48.
- Anderson, J.R., Reder, L.M. & Simon, H.A. (1996). Situated learning and education. *Educational Researcher* 25(4), 5-11.
- Apple, M. (1978). Ideology, reproduction and educational reform. *Comparative Educational Review* 22, 367-387.
- Arlin, M. & Webster, J. (1983). Time costs of mastery learning. *Journal of Educational Psychology*, 75, 187-196.
- Arlin, M. (1982). Teacher responses to student time differences in mastery learning. *American Journal of Education* 90(August), 334-352.
- Ball, D. (1993). With an eye on the mathematical horizon: Dilemma's of teaching elementary school mathematics. *Elementary school journal*, 93, 373-397.
- Ball, S.J. (1981). *Beach-side comprehensive: A case-study of secondary schooling*. Cambridge: Cambridge University Press.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American psychologist*, 37, 122-147.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Barneveld, S. (2002). Moet het onderwijs opvoeden? *Didactief en School* 32(1-2) 6-9.
- Barone, T. (1992). On the demise of subjectivity in educational inquiry. *Curriculum*

Appendix B
References

- Inquiry*, 22(1), 25-38.
- Barone, T. & Eisner, E. (1997). Arts-based educational research. In: R.M. Jaeger (Ed.), *Methods for research in education*. Washington, DC: American Educational Research Association.
- Bartels, M., Rietveld, M.J.H., Van Baal, G.C.M., & Boomsma, D.I. (2002). Genetic and environmental influences on the development of intelligence. *Behavior Genetics* 32(4).
- Berkowitz, L. (1993). *Aggression: Its causes, consequences and control*. New York: McGraw-Hill.
- Berlak, A. & Berlak, H. (1981). *Dilemmas of schooling*. London: Methuen.
- Bielaczyc, K. & Collins, A. (1999). Learning communities in classrooms: a reconceptualization of educational practices. In Ch. M. Reigeluth (ed.), *Instructional design theories and models. Volume II. A new paradigm of instructional theory*. (pp. 269-292). Mahwah, NJ, London: Lawrence Erlbaum Associates.
- Bishop, J.H. (1995). The impact of curriculum-based external examinations on school priorities and student learning. *International Journal of Educational Research* 23(8), 653-752.
- Black, P. & Atkin, J.M. (Eds.) (1996). *Changing the subject. Innovations in science, mathematics and technology education*. London and New York: Routledge in association with OECD.
- Blok, H. & Breetvelt, I. (2002). *Adaptief onderwijs: betekenis en effectiviteit*. (Adaptive education: Meaning and effectiveness). Amsterdam: SCO-Kohnstamminstituut.
- Bloom, B.S., Hastings, J.T. & Madaus, G.F. (1971). *Handbook on formative and summative evaluation of student learning*. New York: McGraw-Hill.
- Blumenfeld, P.C., Hamilton, V.L., Bossert, S.T., Wessels, K. & Meece, J. (1983). Teacher talk and student thought: Socialization into the student role. In J. Levine & M. Wang (Eds.), *Teacher and student perceptions: Implications for learning*. Hillsdale, NJ: Erlbaum.
- Boekaerts, M. & Simons, P.R.J. (1992). *Instructie en Leren: Psychologie van de leerling en het leerproces*. (Instruction and learning: Psychology of the student and the learning process). Assen (the Netherlands): Dekker & Van de Vegt.
- Boekaerts, M. (1992). The adaptable learning process: Initiating and maintaining behavioral change. *Applied Psychology* 41(4) 377-397
- Bourdieu, P. & Passeron, J.C. (1978). *Reproduction in education, society and culture*. Beverly Hills, CA: Sage publication.
- Bowers, C. & Flinders, D. (1990). *Responsive teaching*. New York: Teachers College Press.
- Brophy, J. & Good, T. (1974). *Teacher-student relationships*. New York: Holt.
- Brophy, J.E. & Good, T.L. (1970). Teachers' communication of differential

- expectations for children's classroom performance: Some behavioral data. *Journal of Educational Psychology*, 75, 631-661.
- Brophy, J.E. (1985). Teacher-student interaction. In J.B. Dusek, V.C. Hall & W.J. Meyer (Eds.), *Teacher expectancies* (pp. 303-328). Hillsdale, NJ: Lawrence Erlbaum.
- Brown, A.L. (1994). The advancement of learning. *Educational Researcher* 13(8) 4-12.
- Brown, J.S., Collins, A. & Duguid, P. (1989). Situated cognition and the Culture of Learning. *Educational Researcher* 18(1) pp. 32-42.
- Brown, S., & McIntyre, D. (1993). *Making sense of teaching*. Philadelphia: Open University Press.
- Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Bruner, J. (1996). *The culture of education*. Cambridge, MA: Harvard University Press.
- Buchmann, M. (1983). *Argument and conversation as discourse models of knowledge use*. East Lansing: Michigan State University, Institute for Research on Teaching.
- Buunk, A.P. & Vries, N.K. de (1991). Sociale vergelijking en sociale cognitie. In N.K. de Vries & J.v.d. Pligt (Eds.), *Cognitieve sociale psychologie* (Cognitive social psychology) (p. 367-389). Meppel (the Netherlands): Boom.
- Campbell, R. & Monson, D. (1994). Building a goal-based scenario learning environment. *Educational Technology* 34(9), 9-14.
- Carter, K. (1995). Teaching stories and local understandings. *Journal of Educational Research*, 88, 326-330.
- Cizek, G.J. (1999). Learning, achievement and assessment: Constructs at a crossroad. In G. D. Phye (Ed.), *Handbook of classroom assessment, learning, adjustment and achievement* (1-32). San Diego: Academic Press
- Clark, C., & Yinger, J. (1978). Research on teacher thinking. (Research series No. 12). East Lansing: Michigan State University, Institute for Research on Teaching.
- Clandinin, D.J. & Connelly, F.M. (1987). Teachers' personal knowledge: What counts as personal in studies of the personal. *Journal of Curriculum Studies*, 19(6), 487-500.
- Clark, C.M. & Peterson, P.L. (1986). Teachers' thought processes. In M.C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.) (pp. 255-296). New York: MacMillan.
- Cobb, P. & Bowers, J. (1999). Cognitive and situated learning. Perspectives in theory and practice. *Educational Researcher* 28(2), 4-15.
- Cochran-Smith, M & Lytle, S.L. (1990). Research on teaching and teacher research: The issues that divide. *Educational Researcher*, 19(2), 2-11.
- Cohen, D.K., McLaughlin, M.W., Talbert, J.E. (Eds.). (1993). *Teaching for*

Appendix B

References

- understanding: Challenges for policy and practice*. San Francisco: Jossey-Bass.
- Cohen, E. G. (1986). *Designing groupwork. Strategies for the heterogeneous classroom*. New York: Teachers College Press.
- Cohen, E.G. & Lotan, R.A. (1995). Producing equal-status interaction in the heterogeneous classroom. *American Educational Research Journal* 32(1) 99-120.
- Connelly, F.M. & Clandinin, D.J. (1990). Stories of experience and narrative inquiry. *Educational Researcher* 19(5), 2-14
- Connelly, F.M. (1978). How shall we publish case studies of curriculum development? *Curriculum Inquiry*, 8(1), 78-82.
- Corno, L. & Snow, R.E. (1986). Adapting teaching to individual differences among learners. In M.C. Wittrock (Ed.), *Handbook of research on teaching (3rd ed.)* (pp. 605-629). New York: MacMillan.
- Corno, L., & Rohrkemper, M. M. (1985). The intrinsic motivation to learn in classrooms. In C. Ames & R. Ames (Eds.), *Research on motivation in education Vol. II The classroom milieu* (pp 53-90). New York: Academic Press.
- Crooks, T.J. (1988). The impact of classroom evaluation practices on students. *Review of Educational Research* 58(4), 438-481.
- Dar, Y. & N. Resh (1994). Separating and mixing students for learning: Concepts and research. *Pedagogisch Tijdschrift* 19(2), 109-126.
- Dar, Y. & Resh, N. (1985). Homogeneity and heterogeneity in education: The psychological price argument. *Psychology and counselling in education (Yearbook* pp. 39-62) (Hebrew).
- Dar, Y. & Resh, N. (1986). Classroom intellectual composition and academic achievement. *American Educational Research Journal*, 23(3), 357-374.
- Davis, J.A. (1966). The campus as a frog-pond: An application of the theory of relative deprivation to career decisions of college men. *American Journal of Sociology* 72, 17-31.
- DBRC (Design-based research collective) (2003). Design-based research: an emerging paradigm for educational inquiry. *Educational Researcher* 32(1) 5-8.
- De Corte E., Geerligs, C.T. Lagerweij, N.A.J., Peters & J.J. Vandenberghe, R. (1981). *Beknopte didaxiologie. Vijfde volledig herziene druk* (Concise theory of teaching methods. Fifth revised edition). Groningen, The Netherlands: Wolters-Noordhoff.
- De Corte, E., Greer, B. & Verschaffel, L. (1996). Mathematics learning and teaching. In: D. Berliner and R. Calfee (Eds.), *Handbook of educational psychology* (pp. 491-549). New York: Mc. Millan.
- De Groot, A.D. (1966). *Vijven en zessen. Cijfers en beslissingen: het selectieproces in ons onderwijs*. (Fives and Sixes. Grades and decisions: The selection process in our

- education system). Groningen, The Netherlands: Wolters Noordhoff.
- De Koning, P. (1988). Programmadifferentiatie in de schoolorganisatie. (Teaching program differentiation in the school organization). *Pedagogisch Tijdschrift* 13(5), 396-411.
- De Vries, A.M. & Guldemond, H. (1994). Cognitieve klasesamenstelling en schoolloopbanen in het voortgezet onderwijs. (Cognitive classroom composition and school careers in secondary education.) *Pedagogisch Tijdschrift* 19(2), 127-142.
- De Vries, A.M. (1992). *Hoe breder hoe beter? De effecten van heterogeen groeperen in het voortgezet onderwijs in Nederland*. (The broader the better? The effects of heterogeneous grouping in secondary education in the Netherlands) (diss.) Groningen: RION.
- Dewey, J. (1929). *The sources of a science of education*. New York: Liveright.
- Dodde, N. (1992). Onderwijs niet geschikt om normen en waarden over te brengen. (Schools are ill-equipped to convey norms and values). *Didactief*, October 1992.
- Doyle, W. (1985). The knowledge base for adaptive instruction: A perspective from classroom research. In M.C. Wang & H.J. Walberg (Eds.), *Adapting instruction to individual differences*. Chicago: University of Chicago Press.
- Doyle, W. (1986). Classroom organization and management. In M.C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed.) (pp. 392-431) New York: MacMillan.
- Doyle, W. (1997). Heard any really good stories lately? A critique of the critics of narrative in educational research. *Teaching and Teacher Education*, 13(1), 93-99.
- Druckman, D. & Bjork, R.A. (Eds.). (1994). *Learning, remembering, believing: Enhancing team and individual performance*. Washington, DC: National Academy Press.
- Durkheim, E. (1956). *Education and sociology*. New York: Free Press.
- Dusek, J.B., Hall, V.C. & Meyer, W.J. (Eds.) (1985). *Teacher expectancies*. Hillsdale, NJ: Lawrence Erlbaum.
- Ebel, R.J. (1979). *Essentials of Educational Measurement. Third edition*. NJ: Prentice.
- Edwards D., & Mercer, N. (1993). *Common knowledge: The development of understanding in the classroom*. London: Routledge.
- Einstein, A. (1940). *Science, Philosophy and Religion, A Symposium*, published by the Conference on Science, Philosophy and Religion in Their Relation to the Democratic Way of Life, Inc., New York, 1941.
- Eisner, E. (1992). Objectivity in Educational Research. *Curriculum Inquiry*, 22(1), 9-15.
- Eisner, E.W. (1985). *The educational imagination. On the design and evaluation of school programs. (2nd edition)*. New York: MacMillan.
- Eisner, E.W. (1988). The Primacy of Experience and the Politics of Method.

Appendix B
References

- Educational Researcher*, June-July 1988, 15-20.
- Eisner, E.W. (1991). *The enlightened eye. Qualitative inquiry and the enhancement of educational practice*. Upper Saddle River, NJ: Prentice Hall.
- Elbaz, F. (1983). *Teacher thinking: A study of practical knowledge*. London: Croom Helm, and New York: Nichols.
- Elbaz, F. (1997). Narrative research. Political issues and implications. *Teaching and Teacher Education*, 13(1), 75-83.
- Elbow, P. (1986). *Embracing contraries: Explorations in teaching and learning*. Oxford: Oxford University Press.
- Elliott, J. (1989). Teacher evaluation and teaching as a moral science. In M.L. Holly & C.S. McLoughin (Eds.), *Perspectives on teacher professional development*. New York: The Falmer Press
- Erickson, F., & Shultz, J. (1981). When is a context? Some issues and methods in the analysis of social competence. In J.L. Green & C. Wallat (Eds.), *Ethnography and language in educational settings*. Norwood, NJ: Ablex.
- Feiman-Nemser S., & Floden, R.E. (1986). The cultures of teaching. In M.C. Wittrock (Ed.), *Handbook of research on teaching (3rd ed.)* (pp. 505-526). New York: MacMillan.
- Feiman-Nemser S., & Floden, R.E. (1986). The cultures of teaching. In M.C. Wittrock (Ed.), *Handbook of research on teaching (3rd ed.)* (pp. 505-526) New York: MacMillan.
- Fenstermacher, G.D. (1986). Philosophy of research on teaching. In M.C. Wittrock (Ed.), *Handbook of research on teaching (3rd ed.)* (pp. 505-526) New York: MacMillan.
- Fenstermacher, G.D. (1994). The Knower and Known: The nature of knowledge in research on teaching. *Review of Research on Teaching*, 20, 3-56.
- Festinger, L. (1954). A theory of social comparison processes. *Human relations* 7, 117-140.
- Festinger, L. (1954a). Motivation leading to social behavior. In M.R. Jones (Ed.), *Nebraska symposium on motivation. (Vol. 2, pp. 191-218)*. Lincoln, NE: University of Nebraska Press.
- Feuer, M.J., Towne, L. Shavelson, R.J. (2002). Scientific culture and educational research. *Educational Researcher* 31(8) 4-14.
- Finley, M.K. (1984). Teachers and tracking in a comprehensive high school. *Sociology of Education*, 57, 233-243.
- Florio-Ruane, S. (1991). Conversations and narrative in collaborative research. In C. Witherell & N. Noddings (Eds.), *Stories lives tell. Narrative and dialogue in education*. New York: Teachers College.
- Florio, S., & Shultz, J. (1979). Social competence at home and at school. *Theory into*

- Practice*, 18, 234-243.
- Florio-Ruane, S. (1991). Conversations and narrative in collaborative research. In C. Witherell & N. Noddings, *Stories lives tell. Narrative and dialogue in education*. New York: Teachers College.
- Frederiksen J.R. & Collins, A. (1989). A systems approach to educational testing. *Educational Researcher*, 18(9), 27-32.
- Gadamer, H. (1975). *Truth and method*. New York: The Seabury Press.
- Gage, N.L. (1966, September). Discussion of the symposium on "teachers' expectations as an unintended determinant of pupils' intellectual reputation and competence." Paper presented on the program of Divisions 15 and 8 of the American Psychological Association, New York.
- Gage, N.L. (1971). Preface. In J.D. Elashoff & R.E. Snow (Eds.), *Pygmalion reconsidered* (pp.4-5). Worthington, OH: Jones.
- Gagne, R.M. (1977). *The conditions of learning (3rd ed.)*. New York: Holt, Rinehart & Winston.
- Gardner, H. (1983). *Frames of Mind. The theory of multiple intelligence*. New York: BasicBooks/HarperCollins.
- Girard, R. (1965). *Deceit, desire, and the novel. Self and other in literary structure*. Baltimore: John Hopkins University Press.
- Girard, R. (1989). *The scapegoat*. Baltimore: John Hopkins University Press.
- Girard, R. (1993)
De zondebok (The Scapegoat). Kampen, the Netherlands: Kok Agora.
- Girard, R. (1999). *Ik zie satan vallen als een bliksem* (Dutch translation in 2000 of *Je vois Satan tomber comme l'éclair*). Kampen: Agora./ Paris: Editions Grasset et Fasquelle.
- Girard, R., Oughourlian, J. & Lefort, G. (1990). *Wat vanaf het begin der tijden verborgen was*. Kampen, the Netherlands: Kok Agora. (Translation of *Des choses chachées depuis la fondation du monde*, Paris: Edition Grasset et Fasquelle 1978). Translated in English: *Things hidden since the foundation of the world*, (1987). San Francisco CA: Stanford University Press.
- Good T.L., & Brophy, G.E. (1986). *Educational Psychology (3rd ed.)*. New York: Longman.
- Good, T.L., & Brophy, J.F. (1978). *Looking in classrooms (2nd ed.)*. New York: Harper & Row.
- Goodson, I.F. (1998). Towards an alternative pedagogy. In: J.L. Kincheloe & S.R. Steinberg (Eds.) *Unauthorized Methods. Strategies for critical thinking*. New York: Routledge.
- Govaart, C. (1989). De bijgestelde verwachtingen rond differentiatie (The adjusted

Appendix B
References

- expectations concerning differentiation). *Didaktief*, September.
- Gravemeijer, K. (2003). Ontwikkelingsonderzoek: een praktijk nabije onderzoeksmethode (Design-based research: a practice-based research method). In: B. Levering & P. Smeyers (Eds.), *Opvoeding en onderwijs leren zien* (Learning to see education). Amsterdam: Boom.
- Greeno, J.G. (1997). On claims that answer the wrong questions. *Educational Researcher* 26(1), 5-17.
- Guba, E.G. & Lincoln, Y.S. (1989). *Personal Communication*. Beverly Hills, CA: Sage.
- Guldmond, H. & Meijnen, G.W. (2000). Group effects on individual learning achievement. *Social Psychology of Education*, 4, 117-138
- Haley, J. (1963). *Strategies of psychotherapy*. New York: Grune & Stratton.
- Hallinan, M.T. & Kubitschek, W.N. (1999). Curriculum differentiation and high school achievement. *Social Psychology of Education*, 3, 41-62.
- Harachi, T.W., Catalano, R.F. & Hawkins, J.D. (1999). United States. In P.K. Smith, Y. Morita, J. Junger-Tas, D. Olweus, R. Catalano, P. Slee (Eds.) *The nature of school bullying. A cross-national perspective*. London and New York: Routledge.
- Hargreaves, A. & Fullan, M.G. (1992). *Understanding teacher development*. New York: Teachers College Press.
- Hargreaves, D.H. (1967). *Social relations in a secondary school*. London: Routledge.
- Hart Research Associates (1995). *Valuable views: A public opinion research report on the views of AFT teachers on professional issues*. (pp.1-24). Washington, DC: American Federation of Teachers.
- Hausser, K. (1980). *Die Einteilung von Schülern; Theorie und Praxis schulischer Differenzierung* (Categorizing pupils: Theory and practice of educational differentiation). Weinheim und Basel, Germany: Belz.
- Hazler, R.J., Hoover, J.H. & Oliver, R. (1991). Student perception of victimization in schools. *Journal of Humanistic Education and Development*, 29, 143-150.
- Hemmings, A. (2003). Fighting for respect in urban high schools. *Teachers College Record* 105(3), 416-437.
- Heuvel-Panhuizen, M. van den (1997/1998). TIMSS-onderzoek. (TIMSS-research) *Willem Bartjens* 17(1).
- Hogan, P. (1988). *A community of teacher researchers: A story of empowerment and voice*. *Unpublished manuscript*, University of Calgary.
- Hoover, J.H., Oliver, R. & Hazler, R.J. (1992). Bullying: Perceptions of adolescent victims in the midwestern USA. *School Psychology International*, 13, 5-16.
- Hyman, H.H. (1942). The psychology of status. *Arch. of psychology*, 269.
- Inspectie van het Onderwijs (1994). *Onderwijs op maat* (Customized education).

- Leiden: Dop.
- Inspectie van het Onderwijs (1997). *Onderwijs op maat. Kwaliteitsprofiel van onderwijs- op maat-op basisscholen en LOM- en MLK-scholen in het schooljaar 1995-1996. (Customized education on primary schools and special education during 1995-1996).* Leiden: Dop.
- Inspectie van het Onderwijs (1999). *Werk aan de basis. Evaluatie van de basisvorming na 5 jaar (Evaluation of the Basisvorming).* Den Haag: SDU.
- Intrator, S.M. (2002). *Stories of The Courage to Teach.* San Francisco: Jossey-Bass.
- Johnson, D.W. & Johnson, R.T. (1985). Cooperative learning and adaptive education. In M.C. Wang & H.J. Walberg (Eds.), *Adapting instruction to individual differences.* Chicago: University of Chicago Press.
- Jones, V. (1996). Classroom management. In J. Sikula (Ed.), *Handbook of research on teacher education.* New York: Simon & Schuster MacMillan.
- Jong, M.J. de & Jong, A. de (1990). *Voortgezet basisonderwijs gewenst? (Do we want comprehensive secondary education?)* Rotterdam, The Netherlands: Risbo.
- Jungbluth, P. (1984). *Verborgene differentiatie. Leerlingbeeld en onderwijsaanbod op de basisschool (Hidden differentiation: Teachers' perspectives on pupils curriculum).* Nijmegen, The Netherlands: ITS.
- Jungbluth, P. (2003a). *De ongelijke basisschool (the unequal primary school).* Nijmegen: ITS.
- Jungbluth, P. (2003b). Een compleet zwarte school, so what! (A completely black school, so what). Interview in *Schooljournaal 7(juni)*.
- Kaptein, R. & Tijmes, P. (1987). *De ander als object en obstakel (The other as object and obstacle).* Kampen, the Netherlands: Kok Agora.
- Kelley, H.H. (1952). Two functions of reference groups. In G. Swanson et al. (Eds.), *Readings in social psychology* (pp. 410-414). New York: Holt & Reinhart.
- Kelly, A.E. (2003). The role of design in educational research. Theme issue. *Educational Researcher* 32(1), 3-37.
- Kessels, J.P.A.M. & Korthagen, F.A.J. (1996). The relationship between theory and practice: Back to the classics. *Educational Researcher* 25(3), 17-22.
- Kienitz, W. (1973). *Einheitlichkeit und Differenzierung im Bildungswesen. Ein internationaler Vergleich. (Uniformity and Differentiation in Education: An International Comparison).* Berlin: Pahl-Rügenstein.
- Kounin, J.S. (1970). *Discipline and group management in classrooms.* New York: Holt, Rinehart & Winston.
- Kreft, I.G.G. (1993). Using multilevel analysis to assess school effectiveness: A study of Dutch secondary schools. *Sociology of Education*, 66, 104-129.
- Kremers, E.J.J. (1984). Evalueren van leerresultaten door leerkrachten in de onderbouw van het voortgezet onderwijs. (Evaluation of learning outcomes by

Appendix B

References

- teachers in the first years of secondary education). *Pedagogische Studiën*, 61, 496-508.
- Lampert, M. (1985). How do teachers manage to teach? Perspectives on problems in practice. *Harvard Educational Review* 55 (2), 178-194.
- Lampert, M. (1990). When the problem is not the question and the solution not the answer: Mathematical knowing and teaching. *American Educational Research Journal* 27, 29-63.
- Langeveld, M.J. (1968). *Studien zur Antropologie des Kindes. (A study on child anthropology)*. Tuebingen: Niemeyer.
- Lascaris, A. (1993). *Het soevereine slachtoffer. (The sovereign victim)*. Baarn, the Netherlands: Ten Have.
- Lascaris, A. (1982). *De tweede mijl. Wegtrekken uit Conflicten. (The second mile: departure from conflicts)*. Hilversum, the Netherlands: Gooi en Sticht.
- Lave, J. (1986). Experiments, tests, jobs and chores: how we learn to do what we do. In K. Borman & J. Reisman (Eds.), *Becoming a worker*. Norwood, NJ: Albex.
- Lave, J. (1988). *Cognition in practice: Mind, mathematics and culture in everyday life*. New York: Cambridge University Press.
- LeCompte, M.D. (1980). The civilizing of children: How young children learn to become students. In A.A. van Fleet (Ed.), *Anthropology of education: Methods and applications* (pp105-127). Norman: University of Oklahoma.
- Litt, Th. (1927/1965) *Führen oder Wachsenlassen. Eine Erörterung des Paedagogischen Grundproblems*. Stuttgart: Verlag Ernst Klett.
- Lodewijks-Frencken (1994). *Op opvoeding aangewezen. (Depending on moral education)*. Baarn: Nelissen'
- Lortie, D.C. (1975). *Schoolteacher*. Chicago: University of Chicago Press.
- Marburger, C.L. (1963). Considerations for educational planning. In A.H. Passow (Ed.), *Education in depressed areas* (pp.298-321). New York: Bureau of Publications, Teachers College of Columbia University.
- Marsh, H.W. & Craven, R. (1997). Academic self-concept: Beyond the dustbowl. In G. D. Phye (Ed), *Handbook of classroom assessment, learning, adjustment and achievement*. San Diego: Academic Press.
- McDonald, J.P. (1986). Raising the teacher's voice and the ironic role of theory. *Harvard Educational Review* 56(4), 355-378.
- McDonald, J.P. (1988). The emergence of the teacher's voice: Implications for the new reform. *Teachers College Record*, 89(4), 471-486.
- McDonald, J.P. (1992). *Teaching: making sense of an uncertain craft*. New York: Teachers College Press.
- Meer, B. van der (1988). *De zondebok in de klas (The scapegoat in the classroom)*. 's-

Hertogenbosch: KPC.

- Meer, B. van der (2003). Aanpak van pesten in het voortgezet onderwijs. (Addressing bullying in secondary education). Interview in *SBM, maandblad voor schoolbestuur en management*. Nr. 8
- Merritt, M. (1982). Distributing and directing attention in primary classrooms. In L.C. Wilkinson (Ed.), *Communicating in the classroom* (pp. 223-244). New York: Academic Press.
- Merton, R. K. (1957). *Social theory and social structure*. New York: Free Press.
- Metz, M.H. (1978). *Classrooms and corridors: The crisis of authority in desegregated secondary schools*. Berkeley, CA: University of California Press.
- Meyer, W.J. (1985). Summary, integration and prospective. In J.B. Dusek, V.C. Hall & W.J. Meyer (Eds), *Teacher expectancies* (pp. 353-371). Hillsdale, NJ: Lawrence Erlbaum.
- Miedema, S. (2003). *De onmogelijke mogelijkheid van levensbeschouwelijke opvoeding. The impossible possibility of religious education*. Amsterdam: Vrije Universiteit (inaugurale rede).
- Miller, D.T. & McFarland, C. (1991). When social comparison goes awry: The case of pluralistic ignorance. In J. Suls & T.A. Wills (Eds.) *Social comparison. Contemporary theory and research*. Hillsdale, NJ: Lawrence Erlbaum Associates Publishers.
- Milo, B. (2003). *Mathematics instruction for special needs students*. Proefschrift (dissertation) Rijksuniversiteit Leiden.
- Ministerie van Onderwijs (Department of Education) (2002). *Werken in het onderwijs* (Working in Education). Zoetermeer: Ministerie van Onderwijs.
- Minuchin, S. & Fishman, H.Ch. (1981). *Family therapy techniques*. Cambridge, MA: Harvard University Press.
- Mishler, E.G., (1986). *Research Interviewing: Context and Narrative*. Cambridge, MA: Harvard University Press.
- Mitman, A.L., & Snow, R.E. (1985). Logical and methodological problems in teacher expectancy research. In J.B. Dusek, V.C. Hall & W.J. Meyer (Eds), *Teacher expectancies* (pp. 93-134). Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Moss, P.A. (1992). Shifting conceptions of validity in educational measurement: Implications for performance assessment. *Review of Educational Research*, 62(3), 229-258.
- Moss, P.A. (1994). Can there be validity without reliability? *Educational Researcher*, 23(2), 5-12.
- Moss, P.A. (1996). Enlarging the dialogue in educational measurement: Voices from interpretive research traditions. *Educational Researcher* 25(1), 22-28,43.
- Natriello, G. & Dornbusch, S.M. (1984). *Teacher evaluative standards and student effort*.

Appendix B

References

- New York: Longman.
- Nelissen, J. (1997/1998). Hoofdelijk en klassikaal onderwijs. (Individual and group based education). *Willem Bartjens* 17(1) 18-20.
- Newell R.W. (1986). *Objectivity, empiricism an truth*. London: Routledge and Kegan Paul.
- Newman, F.M. (1997). Authentic assessment in social studies: Standards and examples. In: G. D. Phye (Ed.), *Handbook of classroom assessment, learning, adjustment and achievement*. San Diego: Academic Press.
- Noddings, N. (1986). Fidelity in teaching, teacher education, and research for teaching. *Harvard Educational Review*, 56(4), 496-510.
- Nuy, M. (1981). *Interne Differentiatie. Over het ontwerpen van geïndividualiseerde onderwijsarrangementen*. (Internal differentiation. On the design of individualized teaching formats). Den Bosch: KPC.
- O'Connor, M.C. (1998). Managing the intermental: Classroom group discussion and the social context of learning. In *Social Interaction, Social Context and Language: Essays in honor of Susan Ervin Tripp*. D.I. Slobin (Ed.), J. Gerhardt, A. Kyratzis, J. Guo. Hillsdale NJ: Erlbaum.
- Oakes, J. (1985). *Keeping track: How schools structure inequality*. New Haven, CT: Yale University Press.
- Olweus, D. (1973). Personality and aggression. In J.K. Cole and D.D. Jensen (eds.), *Nebraska Symposium on Motivation 1972* (pp. 261-321). Lincoln: University of Nebraska Press.
- Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention program. In D. Pepler & K. Rubin (Eds.), *The development and treatment of childhood aggression*. Hillsdale, N.J.: Erlbaum.
- Olweus, D. (1993a). Vicimization by peers: Antecedents and long-term outcomes. In K.H. Rubin & J.B. Asendorf (Eds.), *Social withdrawal, inhibition, and shyness in childhood*. Hilldale, NJ: Erlbaum.
- Olweus, D. (1993b). *Bullying at school. What we know and what we can do*. Oxford UK and Cambridge U.S.A.: Blackwell.
- Olweus, D. (1999). Sweden. In P.K. Smith, Y. Morita, J. Junger-Tas, D. Olweus, R. Catalano, P. Slee (Eds.) *The nature of school bullying. A cross-national perspective*. London and New York: Routledge.
- Onderwijsraad (Education Council) (2001) *Inventarisatie van het verloop van leerlingenstromen in het voortgezet onderwijs (Surveying the proceedings of streams of students in secondary education)*. Den Haag: Onderwijsraad.
- Onderwijsraad (Education Council) (2003). *Kennis van Onderwijs (Knowledge about education)*. Den Haag: Onderwijsraad.
- Palincsar, A.S. (1998). Social constructivist perspectives on teaching and learning.

- Annual Review of Psychology* 49, 345-75.
- Palmer, P.J. (1998). *The courage to teach. Exploring the inner landscape of a teacher's life*. San Francisco, CA: Jossey-Bass.
- Paris, S.G., Lawton, Th. A., Turner, J.C., & Roth J.L. (1991). A developmental perspective on standardized achievement testing. *Educational Researcher*, 20(5), 12-20.
- Perkins, D.N. & Unger, C. (1999). Teaching and learning for understanding. In Ch. M. Reigeluth (Ed.), *Instructional design theories and models. A new paradigm of instructional theories* (pp 91-114). Volume II. Mahwah, NJ: Lawrence Erlbaum Associates.
- Peterson, P.L., Marx, R.W. & Clark, C.M. (1978). Teacher planning, teacher behavior, and student achievement. *American Educational Research Journal*, 15(3), 417-432.
- Peterson, P.L., Marx, R.W. & Clark, C.M. (1978). Teacher planning, teacher behavior, and student achievement. *American Educational Research Journal*, 15(3), 417-432.
- Phye, G.D. (Ed.) (1997). *Handbook of classroom assessment, learning, adjustment and achievement*. San Diego: Academic Press.
- Piaget, J. (1952). *The origins of intelligence in children*. New York: International Universities Press.
- Pink, W. (1984). Creating effective schools. *Educational Forum* 49, 91-107.
- Pohan, C.A. & Aguilar, T.E. (2001). Measuring educators' beliefs about diversity in personal and professional contexts. *American Educational Research Journal* 38(1) 159-182.
- Polkinghorne, D.E. (1988). *Narrative knowing and the human sciences*. Albany: State University of New York Press.
- Posthumus, K. (1940). Middelbaar onderwijs en schifting (Secondary education and selection). *De Gids* 104(2) 24-42.
- Prawat, R.S. (1992). From individual differences to learning communities. Our changing focus. *Educational Leadership* 49(7), 9-13.
- Prawat, R.S. (1998). Current self-regulation views of learning and motivation viewed through a Deweyan lens: the problems with dualism. *American Educational Research Journal* 35(2), 199-224.
- Procee, H. (1991). *Over de grenzen van culturen. Voorbij universalisme en relativisme* (Over the borders of cultures. Beyond universalism and relativism). Meppel, The Netherlands: Boom.
- Putnam, R.T. & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1), 4-15.
- Reigeluth, Ch. M. (Ed.) (1999). *Instructional design theories and models. Volume II. A new paradigm of instructional theory*. Mahwah, NJ, London: Lawrence Erlbaum

Appendix B

References

Associates.

- Resnick, L.B. (1987). Learning in school and out. *Educational Researcher*, December, 13-20.
- Resnick, L.B., Levine, J.M., Teasley, S.D. (Eds.) (1991). *Perspectives on socially shared cognition*. Washington DC: American Psychological Association.
- Richer, S. (1976). Reference-group theory and ability grouping: A convergence of sociological theory and educational research. *Sociology of Education*, 49, 65-71.
- Rigby, K. & Slee, Ph. T. (1999). Australia. In P.K. Smith, Y. Morita, J. Junger-Tas, D. Olweus, R. Catalano, P. Slee (Eds.) *The nature of school bullying. A cross-national perspective*. London and New York: Routledge.
- Rist, R.C. (1970). Student social class and teacher expectation: The self-fulfilling prophecy in ghetto education. *Harvard Educational Review*, 40, 411-451.
- Rist, R.C. (2000). HER Classic: Student social class and teacher expectations: the self-fulfilling prophecy in ghetto education. *Harvard Educational Review* 70(3), 257-265.
- Rogoff, B. (1991). Guidance and participation in spatial planning. In L.B. Resnick, J.M. Levine, S.D. Teasley (Eds.) *Perspectives on socially shared cognition*. Washington DC: American Psychological Association.
- Roland, E. & Munthe, E. (Eds.) (1989). *Bullying: An international perspective*. London: Fulton Publishers.
- Rosenshine, B. (1979). Content, time and direct instruction. In P.L. Peterson & H. J. Walberg (Eds.), *Research on Teaching*. Berkeley, CA: McCutchan.
- Rosenthal R., & Jacobson, L. (1968a). *Pygmalion in the classroom: Teacher expectation and pupil intellectual development*. New York: Holt, Rinehart & Winston.
- Rosenthal R., & Jacobson, L. (1968). Teacher expectation for the disadvantaged. *Scientific American* 218, 19-23.
- Russell J. Mills, I., Reiff-Musgrove, P. (1990). The role of symmetrical and asymmetrical social conflict in cognitive change. *Journal of Experimental Child Psychology*. 49, 58-78.
- Rutter, M., Maugham, B., Moritmore, P., Ouston, J., & Smith, A. (1979). *Fifteen thousand hours: secondary schools and their effects on children*. Cambridge, MA: Harvard University Press.
- Salmon-Cox, L. (1980, April). Teachers and tests: What's really happening? Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.
- Salomon, G. & Globerson, T. (1989). When teams do not function the way they ought to. *International Journal of Educational Research* 13, 89-98.
- Salovey, P. (1991). Social comparison processes in envy and jealousy. In J. Suls & T.A. Wills (Eds.), *Social comparison. Contemporary theory and research*. Hillsdale,

- NJ: Lawrence Erlbaum Associates Publishers.
- Sarbin, T. R. (Ed.) (1986). *Narrative Psychology: The storied nature of human conduct*. New York: Praeger.
- Scamardalia, M. & Bereiter, C. (1989). Intentional learning as a goal of instruction. In L.B. Resnick (Ed.) *Knowing, Learning and Instruction*. (pp. 361-392). Hillsdale, NJ: Erlbaum.
- Schön, D.A.(1983). *The reflective practitioner. How professional think in action*. New York: Basic Books.
- Schumacher, E. F. (1973). *Small is beautiful: Economics as if people mattered*. New York: HarperCollins.
- Schunk, D. (1984). Self-efficacy perspective on achievement behavior. *Educational psychologist* 19, 48-58.
- Schunk, D. (1985). Self-efficacy and classroom learning. *Psychology in the Schools*, 22, 208-223.
- Schunk, D.H. (1996). Goal and self-evaluative influences during children's cognitive skill learning. *American Educational Research Journal* 33(2), 359-382.
- Schuyt, K. (2001). *Het onderbroken ritme. (The interrupted rhythm)* Kohnstammlezing. Amsterdam: Vossiuspers AUP.
- Scriven, M. (1967). The methodology of evaluation. In R.E. Stake (Ed.), *Curriculum Evaluation. American Educational Monograph Series on Evaluation, no.1*. Chicago: Rand McNally.
- Shavelson, R.J. & Stern, P. (1981). Research on teachers' pedagogical thoughts, judgements, decisions, and behavior. *Review of Educational Research*, 51(4), 455-498.
- Shepard, L.A. (1991). Psychometricians' belief about learning. *Educational Researcher*, 20(6), 2-16.
- Shuell, Th. J. (1986). Cognitive conceptions of learning. *Review of educational research* 56(4) 411-436.
- Shuell, Th. J. (1988). The role of the student in learning from instruction. *Contemporary educational psychology* 13, 276-295.
- Shulman, L.S. (1980). Test design: a view from practice. In E.L. Baker & E.S. Quellmalz (Eds.), *Educational testing and evaluation* (pp. 63-73). Los Angeles, CA: Sage.
- Shulman, L.S. (1986). Paradigms and research programs in the study of teaching: A contemporary perspective. In M.C. Wittrock (Ed.), *Handbook of research on teaching (3rd ed.)* (pp. 505-526). New York: MacMillan.
- Sizer, Th.R. (1984). *Horace's compromise: the dilemma of the American high school*. Boston, MA: Houghton Mifflin.
- Sizer, Th. R. (1992). *Horace's School. Redesigning the American high school*. Boston:

Appendix B
References

Houghton Mifflin Company.

- Slavin, R. E. (1990). *Cooperative learning: theory, research and practice*. Englewood Cliffs, NJ: Prentice-Hall.
- Slavin, R.E. (1983). *Cooperative Learning*. New York: Longmann.
- Slavin, R.E. (Ed.) (1989). *School and classroom organization*. Hillsdale, NJ: Lawrence Erlbaum.
- Smaling, A. (1990). Objectiviteit en rolneming (Objectivity and Role-taking). In I. Maso & A. Smaling (Eds.), *Objectiviteit in kwalitatief onderzoek (Objectivity in qualitative research)*. Amsterdam/Meppel (the Netherlands): Boom.
- Smeets, E.F. L. & Th.J.M.N. Buis (1986). *Leraren over de eerste fase van het voortgezet onderwijs*. (Teachers' opinion about the first years of Secondary Education) 's-Gravenhage, The Netherlands: Staatsuitgeverij.
- Smith, P.K. & Morita, Y. Introduction. In P.K. Smith, Y. Morita, J. Junger-Tas, D. Olweus, R. Catalano, P. Slee (Eds.) (1999). *The nature of school bullying. A cross-national perspective*. London and New York: Routledge.
- Snow, R.E. (1969). Unfinished Pygmalion (Review of Pygmalion in the Classroom). *Contemporary Psychology*, 14, 197-200.
- Soar, R.S., & Soar, R.M. (1983 February). Context effects in the teaching-learning process. In D.C. Smith (Ed.), *Essential knowledge for beginning educators*. Washington, DC: American Association of Colleges for Teacher Education.
- Stiggins R.J. & Bridgeford, N.J. (1985). The ecology of classroom assessment. *Journal of educational measurement*, 22(4), 271-286.
- Stiggins, R.J. (1991). Relevant classroom assessment training for teachers. *Educational Measurement: Issues and Practice*, 10(1), 7-12.
- Stiggins, R.J., Conklin, N.F. & Bridgeford, N.J. (1986). Classroom assessment: A key to effective education. *Educational Measurement: Issues and Practice*, 5(2), 5-17.
- Stiggins, R.J., Frisbie, D.A. & Griswold, Ph.A. (1989). Inside high school grading practices: Building a research agenda. *Educational Measurement: Issues and Practice* 8(2), 5-14.
- Stinchcombe, A.L. (1964). *Rebellion in high school*. Chicago: Quadrangle.
- Terwel, J. & Hooch Antink, M.H.J. (1996). *Ontwerpen van klassesituaties*. (Design of classroom situations). Amsterdam: SCO Kohnstamm Instituut/Faculteit POW University of Amsterdam.
- Terwel, J. (1986). Basisvorming en het ontwerpen van onderwijsleersituaties van 12-16 jarigen. (Basisvorming and the design of teaching-learning situations of 12-16 year old students). *Pedagogisch Tijdschrift* 11(6) 354-366.
- Terwel, J. (1988). Effecten van differentiatie en heterogeniteit in de eerste fase voortgezet onderwijs. (Effects of differentiation and heterogeneity in the first

- phase of secondary education). *Pedagogische Studien* 13(5) 326-340.
- Terwel, J. (1993). Het bevorderen van authentiek leren (Promoting authentic learning). In B. van Oers en W. Wardekker (Eds), *De leerling als deelnemer aan de cultuur* (The student as participant of the culture). Delft, The Netherlands: Eburon.
- Terwel, J. (1994). *Samen onderwijs maken. Over het ontwerpen van adaptief onderwijs.* (Making adaptive education together. On the design of adaptive education). Groningen: Wolters Noordhoff.
- Terwel, J. (2002). Curriculumdifferentiatie en leren denken: een onderwijspedagogisch perspectief. (Curriculum differentiation and learning to think). *Pedagogische Studien* (79), 192-211.
- Terwel, J. (2003). Cooperative learning in secondary education: a curriculum perspective. In: R. Gillies & A. Ashman (Eds.), *Cooperative Learning: The social and intellectual outcomes of learning in groups*. London & New York: RoutledgeFalmer.
- Terwel, J. (2004). Curriculum and curriculum differentiation. In: J. Terwel & D. Walker (Eds.), *Curriculum as a shaping force. Toward a principled approach in curriculum theory and practice*. New York: Nova.
- Terwel, J., Gillies, R.M., Eeden, P. van den & Hoek, D. (2001). Co-operative learning processes of students: a longitudinal multilevel perspective. *British Journal of Educational Psychology*, 71, 619-645.
- Terwilliger, J.S. (1989). Classroom standard setting and grading practices. *Educational Measurement: Issues and Practice*. 8(2), 15-19.
- Thomas, J.W., Iventoch, L., & Rohwer, W.D. (1987). Relationships among student characteristics, study activities, and achievement as a function of course characteristics. *Contemporary Educational Psychology*, 12, 344-364.
- Thorndike, R.L. (1968). Review of Pygmalion in the classroom. *American Educational Research Journal*, 5, 708-711.
- Tijmes, P. (1985). We zijn veroordeeld altoos te blijven twisten. Een vergelijking van Max Weber en René Girard. (We are condemned to quarrel for ever. A comparison between Max Weber and René Girard). *Mens en Maatschappij* (Man and Society) 60(4) 376-389.
- Toulmin, S. E. (2001). *Return to reason*. Cambridge, UK: Cambridge University Press.
- Toulmin, S. E. (1958). *Uses of arguments*. Cambridge, MA: Harvard University Press.
- Toulmin, S.E. (1982). The construal of reality: Criticism in modern and post modern science. In: W.J.T. Mitchell (Ed.), *The politics of interpretation*. Chicago: University of Chicago Press.
- Treffers, A. (1997). De opkomst van het neoklassikale onderwijs. (The rise of neo-whole class education). *Didactief & School*, Oktober.
- Treffers, A. (1997/1998). Rekenonderwijs naar menselijke maat. (Mathematics

Appendix B
References

- education on a human scale). *Willem Bartjens* 17(1), 4-7.
- Valkenburg, P. (1998). *Vierkante ogen. Opgroeien met TV & PC.* (Square eyes. Growing up with television and personal computer). Amsterdam: Balans.
- Van den Bergh, H., Peters-Sips, M., & Zwarts, M. (1999). Deelstudies in het kader van de evaluatie van de Basisvorming. (Part-studies concerning the evaluation of the first years of secondary education.). *Pedagogische Studiën*, 76, 258-272.
- Van Kemenade, J.A. (Ed) 1981 *Onderwijs: bestel en beleid* (Education: System and Policy). Groningen, The Netherlands: Wolters Noordhoff.
- Van Manen, M. (1977). Linking ways of knowing with ways of being practical. *Curriculum Inquiry* 6(3), 205-228.
- Vanfossen, B.E., Jones, J.D. & Spade, J.Z. (1987). Curriculum tracking and status maintenance. *Sociology of Education*, 60, 104-122.
- Veldman, D.J., & Standford, (1984). The influence of class ability level on student achievement and classroom behavior. *American Educational Research Journal*, 21, 629-644.
- Verloop, N. (1989). *Interactive cognitions of student teachers. An intervention study.* Dissertation Leiden University. Arnhem: Cito.
- Verloop, N. & Van der Schoot, F. (1995). Didactische evaluatie. (Evaluation as an aspect of teaching strategy) In: J. Lowyck & N. Verloop (Eds.), *Onderwijskunde. Een kennisbasis voor professionals.* (Educational theory. A knowledge base for professionals.) Groningen, The Netherlands: Wolters-Noordhoff.
- Verloop, N. & Lowyck, J. (Eds.) (2003). *Onderwijskunde* (Educational Theory). Groningen: Wolters-Noordhoff.
- Verloop, N. (1992). Praktijkkennis van docenten: een blinde vlek van de onderwijskunde. (Practical knowledge of teachers: a blind spot of educational theory.) *Pedagogische Studien*, 69, 410-423.
- Verloop, N., & Zwarts, M.A. (1987). Evalueren (Evaluation). In P. Span, J.M.C. Nelissen, H.F. Pijning & C. Dietvorst (Eds.), *Onderwijzen en leren* (Teaching and learning) (pp. 223-248). Groningen, The Netherlands: Wolters Noordhoff.
- Vernooy, K. (1997/1998). De effectiviteit van groeperingswijzen, recent onderzoek nader bekeken. (The effectiveness of grouping,; An analysis of recent research). *Willem Bartjens* 17(1).
- Vos, J.F. (1981)
De middenschool in de jaren tachtig (The comprehensive school in the eighties). Amsterdam: Vrije Universiteit.
- Vygotskij, L.S. (1974; eleventh printing; copyright 1962). *Thought and language.* Cambridge Mass: The MIT press.
- Vygotskij, L.S. (1979; second printing, copyright in 1978). *Mind in Society. The development of higher psychological processes.* Cambridge: Harvard University

- Press.
- Wajnrub, R. (1992). *Classroom observation tasks*. Cambridge: University Press.
- Wallat, C., & Green, J.L. (1979). Social rules and communicative contexts in kindergarten. *Theory Into Practice*, 18(4), 275-284.
- Wang, M.C. & Walberg, H.J. (1985). *Adapting instruction to individual differences*. Chicago: University of Chicago Press.
- Wardekker, W. (1989). De geest uit de machine? "Nieuwe media" in het onderwijs. (New media in education). *Comenius* 35 (herfst), 243-258.
- Wardekker, W.L. (1989). Praktijktheorieën van leraren. (Practical theories of teachers.) *Pedagogisch Tijdschrift. Speciale editie vierde landelijke pedagogendag*, 27 mei 1989. Amersfoort, The Netherlands: Acco.
- Wardekker, W.L. (2000). Criteria for the quality of inquiry. *Mind, Culture and Activity* 7(4), 259-272.
- Watzlawick, P., Beaving, J.H. & Jackson, D.D. (1967). *Pragmatics of human communication*. New York: Norton.
- Weizenbaum, J. (1976). *Computer power and human reason*. San Francisco, CA: W.H. Freeman.
- Wheelock, A. (1992). *Crossing the tracks. How "untracking" can save America's schools*. New York: The New Press.
- Wills, T.A. & Suls, J. (1991). Commentary: Neo-social comparison theory and beyond. In J. Suls & T.A. Wills (Eds.), *Social comparison. Contemporary theory and research*. Hillsdale, NJ: Lawrence Erlbaum Associates Publishers.
- Wills, T.A. (1991). Similarity and self-esteem in downward comparison. In J. Suls & T.A. Wills (Eds.) *Social comparison. Contemporary theory and research*. Hillsdale, NJ: Lawrence Erlbaum Associates Publishers.
- Wineburg, S.S. (1987). The self-fulfillment of the self-fulfilling prophecy. *Educational Researcher*, (6) December 1987, 28-37.
- Wolcott, H.F. (1997). Ethnographic research in education. In: R.M. Jaeger (Ed.), *Methods for research in education*. Washington, DC: American Educational Research Association.
- WRR- rapport (1986). *Basisvorming in het onderwijs* (Report of the Advisory Council on Government policy about restructuring of secondary education). 's-Gravenhage, The Netherlands: Staatsuitgeverij.
- Yinger, R.J. (1977). *A study of teacher planning: description and theory development using ethnographic and information processing methods*. (Research series No. 18). East Lansing, Michigan: Michigan State University, Institute for Research on Teaching.
- Zahorik, J.A. (1975). Teachers planning models. *Educational Leadership*, 33(2), 134-

Appendix B
References

139.

Zaritsky, R., Kelly, A.E., Flowers, W., Rogers, E., & O'neill, P. (2003). Clinical design sciences: A view from sister design efforts. *Educational Researcher* 32(1), 32-34.

Zeichner, K. (1999). The new scholarship in teacher education. *Educational Researcher*, 28(9), 4-15.

Zeichner, K., & Tabachnick, B.R. (1981). Are the effects of teacher education washed out by school experience? *Journal of Teacher Education*, 32(3), 7-11.

Zimmerman, B.J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, 81(3) 329-339.