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## **Are literacy competences and success rates lower in multicultural classrooms?**

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### **Introduction**

Multicultural classes are a logical consequence of the dynamic unification of Europe and EC treaties relating to the free movement of persons and goods (European Parliament 2001). As a result, differences in language background of students are quite prominent in a day-to-day teaching practice (McPake, 2007). Not only do pupils differ in their linguistic knowledge, there are also marked differences in (Dutch) language competences and skills. A sufficient level of these language competences and skills are a necessary condition to be able to function successfully in a classroom and be successful in an educational system. It is often stated that a multicultural composition of a classroom enlarges the mismatch between the expected and average level of the language competences of pupils as well as the diversity in language competences. However, is this really the case and how can this be explained?

This contribution focuses on the consequences of the mismatch between, on the one hand, the school language register and the competences of pupils (referred to as literacy competences) and on the other hand, the instruction language and the supposed pupil's literacy competences by the teacher. More specifically, we seek to demonstrate that variations in literacy competences complicate the learning process for all pupils in a multicultural classroom and thus limit their chances of acquiring the desired level of proficiency. In our argumentation, we embrace a social constructivistic (language) approach of education and (language) learning (Gibbons, 2002; Cobb, 2006), where the class is seen as a social system in which the learning process proceeds through communication. In this learning process, pupils acquire literacy competences through linguistic interactions that are a prerequisite for a successful completion of the subject course, and thus for school success (cf. Freeman & Freeman, 2007).

In studies on diversity in student's literacy competences, the perspective chosen is often that of the pupil, whereby differences in literacy competences are often linked to socio-economic background characteristics and/or (literacy) socialization (for instance, Au 1998, de Jong & Leseman, 2001; Stokmans 2007). In this study however, we will take the teacher's perspective. After all, a teacher is the person who recognizes diversity in literacy competences and is able to indicate the differences between the required competence level, and the average competence level in the classroom. If these differences are big, teachers may experience problems, since the intended lesson content is not always perceived as such by a pupil, and thus reduces the chances of success of these pupils. By making an inventory of the problems experienced and the

rate of success from the perspective of teachers, it can be made plain how urgent the problems involved in literacy competences are in diverse classroom practices.

#### *Linguistic interaction in a teaching context*

The framework we present (see Figure 1) is based on two very different paradigms. The first is a social constructivist perspective (Vygotsky 1987; Wilkinson & Silliman 2000, Painter 2001)), with the following premises:

1. Learning is seen as a social activity. Interpersonal behavior is the basis for new conceptual understanding.
2. Learning is integrated. There is a strong relation between oral and written language.
3. A prerequisite for learning is interaction and participation in classroom activities. Engaged pupils are more motivated and have the best chance of being successful at school.

The second perspective is a communication model (Fill, 2002) that focuses on diversity in cultural background and indicates how diverse social systems (identified as areas of experience) affect linguistic interactions (content of the lesson and interaction in the classroom).

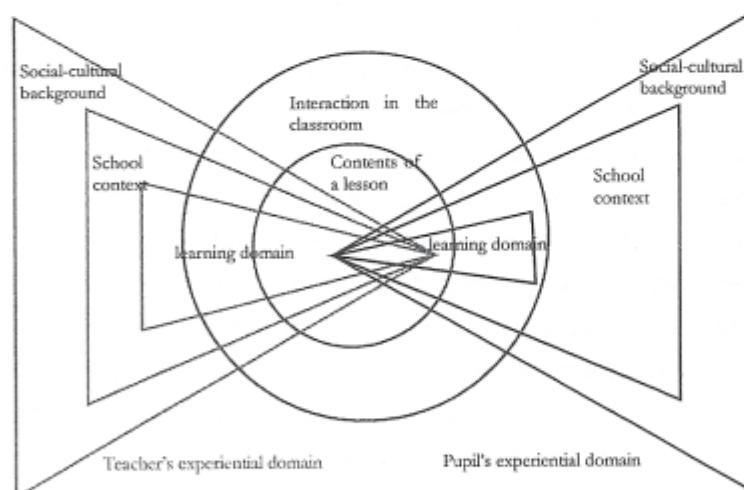


Figure 1: A model of linguistic interaction in a social diverse teaching context.

In the presented framework, as summarized in Figure 1, learning is a result of interaction (visualized as circles) between two persons of different cultural backgrounds (in Figure 1 a teacher and a pupil, however, it could also be two pupils). According to social constructivism, all experiences (in all social domains; the lesson, school, society as a whole) add to the competences, skills and knowledge a person brings to the social context and shapes the linguistic interaction. In Figure 1, the experiences are visualized by three triangles. Firstly, experience with the learning domain that consists of subject specific proficiency, competences, and experiences with the subject of the course. On the basis of these domain-specific knowledge and competences the linguistic interaction specific to the subject takes place. Secondly, there is

the social context of the school, where we find experience, manners, and language use that go beyond the subject course but are school specific. The linguistic variety in which pupils are taught is often referred to as the school language register or "academic language" (Schleppegrell, 2004; Aarts, Demir & Fall, 2010). Thirdly, there is the socio-cultural background, where we can place the experiences (including customs and values) and language use (including street slang) stemming from this broader social context (at home, the neighborhood). Figure 1 shows a situation in which a teacher and a pupil differ enormously in linguistic, social and cultural background (there is little overlap between the domains that indicate the register, the school context and the socio-cultural context). In this situation, the interaction between a pupil and a teacher will be very problematic because they share so few literacy competences, subject proficiencies and experiences.

Teacher's experiential domain are observable in the register they usually apply for teaching in the subject domain, as well as in the examples chosen to illustrate the lesson content, and the elaboration on these examples. Figure 1 tries to illustrate that teachers give shape to the content of a lesson from their experiential domain and try to take into account the (average) knowledge, competences, and experiences of the pupils in the classroom (the circle of lesson contents is more to the side of the teacher). If the triangles of the experiential domains have little in common, a teacher is obligated to adjust the lesson accordingly. This becomes problematic if the pupils in a classroom differ markedly in their cultural background, school carrier, familiarity with the subject domain and literacy competences.

The interaction in the classroom however, is more tailored to the individual pupils, as shown in Figure 1. Pupils interpret the content of a lesson from their own experiential domain, and a teacher can give feedback if it becomes clear that the pupil did not get the content right. If pupils have little experience with the subject the course is about, they can't make use of a subject specific register. The student will probably make use of a registry of a related area of expertise, the more general school register or the register that is based on their own experiential domain (at home, in the street).

The crux of Figure 1 is that a teacher in an educational setting wants to communicate a specific part of the learning domain's proficiency and competences to the pupils. This process makes use of linguistic interaction voiced in the content of the lesson and the interaction in the classroom, and is based on the experience domains of a teacher and the pupils of the class. This linguistic interaction uses literacy competences that are not necessarily specific to the learning domain, but originate from an educational context or are embedded in a social cultural background. If literacy competences of pupils lag behind what is expected by a teacher, the teacher will experience problems in explaining and illustrating the content of the lesson and pupils will experience problems in interpreting the lesson content. This impairs the learning process.

Based on this theoretical elaboration, we formulate the following hypotheses:

1. Teachers of multicultural classes (e.g. with predominantly L2-Dutch pupils) experience more problems with diversity in literacy competences in communicating the content of the lesson than do teachers of a monocultural class (i.e. with predominantly L1-Dutch pupils)
2. This is true for all subject domains, but probably more for language courses than other subject courses (social science, natural science, mathematics, and technical courses).
3. Teachers of multicultural classes expect lower levels of literacy competences of their pupils, than do teachers of monocultural classes.
4. Teachers of multicultural classes expect that a smaller proportion of their pupils reach the level of literacy competences necessary for the learning domain to finish the course successfully, in comparison with teachers of monocultural classes.

Before we can investigate these hypotheses, we will first carefully explore the notion of 'literacy competences'. In this study we restrict ourselves to receptive competences. We will illustrate that these competences determine the interpretation and therewith the comprehension of the content of a lesson by a pupil.

#### *Conceptualization of (receptive) literacy competences in a school context*

Every discipline taught at school uses abstract concepts and specialist terms to bring forward a specific phenomenon without referring to a specific situation or case. In addition, the references as well as the relations specified about the phenomenon are precisely described. These references should be interpreted as such by a pupil. This brings us to meta-cognitive skills (literacy competences) that characterize linguistic interaction in an educational context. In order to describe literacy competences, we turn to meta-cognitive skills focusing on meaning and understanding of written texts. For the domain of reading these meta-cognitive skills are conceptualized in the PIRLS study (Mullis et al, 2006: 3):

1. Finding the information explicitly given
2. Making straightforward inferences
3. Interpreting and integrating ideas and information
4. Determining the type of text (purpose of the text) and adjusting the interpretation of the text accordingly.

The first competence focuses on the information signified in the content of the lesson. What is the lesson about, and what is being said about it? The pupil can recognize the intended information in the text or in the communication. Questions that can be answered at this level of comprehension are: who does what, where and when. This level of competence is based on vocabulary and meaning analysis at a sentence level.

In the second competence pupils not only make use of essential information in a particular part of a text, they also combine information that is given at different places in a text in order to

establish the chronological sequence, simple causal-(cause-consequence mechanism) or relational conclusions (the relationship between two (or more) characters, events), or a line of argument. In addition, pupils draw straightforward inferences in order to fill in gaps in the line of reasoning. These competences are essential, since meaning is not necessarily expressed directly in communication although it is based on communication.

In the third competence distinguished, the interpretation process is supplemented with 'extra-textual' information. Pupils interpret the information gathered from a text and integrate it with their own ideas, knowledge and experiences. The resulting interpretation is idiosyncratic since every pupil takes part in the communication from his own domain of experiences (social and cultural background). Important inferences that are made here are: the implications of the information for a particular phenomenon that the text is related to (or related to me as a person), and the extent ideas in the text are consistent with ideas in other texts or ideas of the pupil. Pupils reflect on what is communicated in the light of their own experiential domain (experiences, knowledge, norms and values).

In the last meta-cognitive competence, a bird's eye view is taken. The interpretation of the text is evaluated in the light of the type of text/discourse. In this, pupils use their knowledge of linguistic conventions, genres, textual structure, and familiarity with the author's point of view (the source) to arrive at a critical appraisal of the text. On the bases of this kind of competence, pupils can adjust the meaning of the text, or look at it from the right perspective.

By distinguishing these types of meta-cognitive competences, we can describe the literacy competences more precisely. It concerns procedural knowledge (with vague boundaries). The order in which they are applied may be context specific (educational context, persuasive context) or depending on the purpose of the interpretation (learning for an exam). For example, if a pupil wants to trace specific information in a text fast, being familiar with the genre the text belongs to and its consequent structure can be of great help.

## **Research method**

This study was conducted in the Netherlands (summer 2009 - summer 2010). It can be characterized as a two-sided descriptive investigation in which on the one side we make an inventory of the extent teachers experience problems related to diversity in literacy competences in their day-to-day teaching practice and on the other, we look at the achievement of pupils on literacy competence. In the description we take the perspective of the teacher.

### *Respondents*

The online questionnaire about the opinions and perceptions of teachers was filled in by 169 teachers active in Dutch primary and secondary education. Table 1 summarizes important characteristics of the sample. Most teachers in the sample have been teaching for many years. However, they are less familiar with teaching in a multicultural classroom. Moreover, in their

training and refresher courses 'teaching in a multilingual (multicultural) classroom' has hardly received any attention. This is all the more striking because as little as 19% of the teachers are teaching classes with close to 100% T1-Dutch pupils; 29% are teaching classes with a majority (75%) of T1-Dutch pupils; 24% are teaching classes with about half T1-Dutch pupils; 16% are teaching classes where as little as 25% of the pupils has Dutch as T1; and 12% are teaching classes with hardly any (less than 10%) T1-Dutch pupils.

Table 1: Characteristics of the sample.

Characteristic	Count	
Age	160	42.5 year (s.d. = 12,55)
Sex	163	67% woman
Number of years active in education	159	16,2 (s.d. = 12,05)
Number of years teaching a multilingual class	156	8,09 (s.d. = 9,76)
Educational level	140	55% Primary Teaching Training; 50% Secondary Teaching Training 35% Master degree or equivalent
Attention to teaching in multilingual class in original education	164	1,2 (s.d. = 1,07) (none:1; 5-points)
Attention to teaching in multilingual class in refresher courses	163	1,59 (s.d. = 1,10) (none:1; 5-points)
Teaching practice	135	38% primary school 49% vocational training / junior (first three years) high school 13% senior (fourth and up years) high school

### *The questionnaire*

Teachers' opinions and perceptions were asked for in an online questionnaire that was part of the Eucim-project (Broeder & Stokmans; [www.eucim-te.nl](http://www.eucim-te.nl), 2009). In this report only a small number of findings are reported. The following parts of the questionnaire are relevant here: background characteristics of the teachers (as reported in Table 1), problems with diversity in literacy competences in a day-to-day teaching practice, the extent these problems are occurring for all courses (language courses and subject courses), the level of literacy competences of the pupils, and the level of literacy competences necessary to complete the course successfully. These themes will be explained successively.

In order to make an inventory of the perceived problems with literacy competences, we distinguish three global competences that are based on the meta-cognitive processes as described in the introduction. Table 2 presents an overview of the specific indicators of literacy competences distinguished in this study. We explained each of the competences to the respondents in a short text preceding the question. For each global competence, as summarized at the left side of Table 2, the teacher is asked to indicate the extent problems are perceived ("to what extent does diversity on this literacy competence complicate teaching in your situation?",

"Not an all = 1", "very much = 5"). Next, the teacher was asked to indicate the extent these literacy problems (in general) occur in a particular course: Dutch language, modern languages, social sciences, natural sciences, mathematics or arithmetic, ICT, and technical courses.

Table 2: Receptive literacy competences.

Global competence	Indicator
Listening (Vocabulary)	<ul style="list-style-type: none"> <li>✓ Frequently occurring words in the subject domain (considering the school year).</li> <li>✓ Infrequently used words in the subject domain (considering the school year).</li> </ul>
Meaning analysis (What does the text literally say)	<ul style="list-style-type: none"> <li>✓ Meaning at a sentence level: Who, what, when.</li> <li>✓ Meaning at a paragraph level: Who does what, why, to what purpose in a particular context.</li> </ul>
Comprehension (What does the text intend)	<ul style="list-style-type: none"> <li>✓ Inferences: Empathize in the story and usefulness of the information for the pupil.</li> <li>✓ Line of argument: recognize implicit and explicit arguments and ideas; completeness of argumentation; Correspondence with ideas of the reader.</li> <li>✓ Understanding of global text features (type of text, communicative purpose, global content, tone of voice of the text) and adjusting the interpretation accordingly.</li> </ul>

The impact of literacy competences on finishing the course was established in two ways. Firstly, for each of the seven indicators of literacy competences, as summarized at the right side of Table 2, teachers were asked to indicate the achievement level of their pupils ("What is the achievement level of the pupils on each of the competences regarding your subject course, taken the school year into account?"; "worse than expected" = 1, "about as to be expected" = 3, "much better than expected" = 5). Secondly, teacher could indicate, for each literacy competence, the percentage of pupils that reach the necessary level to complete the course of the teacher ("What percentage of your pupils reach the level in these competences necessary to be able to finish your course successfully?" "almost nobody = 1", "about 50% = 3", "almost everyone = 5").

## Results

The hypotheses as set out in the introduction, the perceptions and opinions of teachers of multicultural classrooms are contrasted with the perceptions and opinions of teachers of monocultural classrooms. To examine this contrast, the sample is divided into two groups: 48% of the teachers taught in a monolingual classroom (predominantly T1-Dutch pupils) while 52% taught in a multilingual classroom (50% or more of the pupils in the class do not have Dutch as T1). Besides this contrast, we accounted for differences in educational level. As the description of the sample shows (Table 1), approximately 38% of the respondents are teaching in primary school, 49% in junior high school (VO/VMBO) and 11% in senior high school (VO).



### *Problems with diversity in literacy competences*

In this section we go into the perceived problems with diversity in literacy competences: to what extent are they perceived (hypotheses 1) and are these problems universal for all courses (hypotheses 2)?

Table 3 gives an overview of the results regarding the first hypotheses. An analysis of variance (ANOVA) with factors Dutch as T1 (more versus less than 50% T1-Dutch) and educational level (primary school, junior, and senior high school) indicated that there are significant differences between classes for all global literacy competences.

Table 3: The average (standard deviations in brackets) of the experienced problems with diversity in literacy competences (1= none at all; 5 = very much).

Literacy	T1-Dutch	Primary school	Junior high	Senior high
Listening	More than 50%	3,42 (1,31)	3,43 (1,07)	2,73 (0,79)
	Less than 50%	4,15 (0,95)	3,76 (1,07)	2,80 (0,84)
Meaning analysis	More than 50%	3,56 (1,20)	3,54 (1,08)	2,82 (0,87)
	Less than 50%	4,04 (0,85)	4,09 (1,03)	2,60 (1,14)
Comprehension	More than 50%	3,72 (1,41)	3,57 (1,03)	2,91 (0,83)
	Less than 50%	4,23 (0,82)	4,21 (0,93)	3,20 (0,84)

In classrooms with less than 50% T1-Dutch pupils, significantly more problems are experienced with all literacy competences. Furthermore, teachers in primary school and junior high school experience problems to the same extent, but they experience significantly more problems than do teachers in senior high school. Next to this result, Table 3 suggests that teachers are experiencing more problems as the literacy competences get more cognitively complex. The more information (in the text or extra-textual) needs to be integrated, the more problems are experienced. This could be expected on the bases the theoretical elaboration as summarized in Figure 1.

To what extent are problems with diversity in literacy competences subject course specific? The results regarding this topic are presented in Table 4 in which differences are examined between mono- (more than 50% Dutch as T1) and multi-cultural (50% or less Dutch as T1) classrooms and between educational levels. Analyses of variance (ANOVA) uncovered unexpected similarities and differences.

For language courses, the problems are serious (overall 4.00 for Dutch and 3.5 for modern language on a 5-point scale) and do not differ significantly between mono- and multicultural classrooms. However, significant differences were found between educational levels. For a Dutch course, teachers perceive a similar extent of problems with diversity in literacy competences in primary school and junior high school and fewer problems in senior high school. For modern languages, teachers report a similar amount of problems in junior and senior high school but less problems in primary school.

Table 4: The average (standard deviations in brackets) of literacy problems (in general) expected for specific courses (1= none at all; 5 = very much).

Subject	T1-Dutch	Primary school	Junior high	Senior high
Dutch	More than 50%	3,74 (1,20)	4,30 (0,95)	3,27 (1,42)
	Less than 50%	4,26 (0,81)	4,06 (0,99)	3,40 (1,14)
Modern language	More than 50%	2,71 (0,85)	4,15 (0,91)	3,27 (1,01)
	Less than 50%	3,44 (1,09)	3,61 (1,17)	3,40 (1,52)
Social sciences	More than 50%	3,88 (1,09)	3,81 (0,96)	3,27 (0,91)
	Less than 50%	4,31 (0,87)	3,65 (0,95)	4,00 (0,71)
Natural sciences	More than 50%	3,67 (1,29)	3,32 (1,07)	3,36 (0,92)
	Less than 50%	4,07 (0,99)	3,48 (1,01)	4,20 (0,84)
Maths, arithmetic	More than 50%	3,00 (1,28)	2,92 (1,12)	2,82 (1,40)
	Less than 50%	3,44 (0,73)	3,30 (0,95)	3,80 (1,09)
ICT	More than 50%	2,60 (1,12)	2,48 (0,96)	2,73 (0,91)
	Less than 50%	2,93 (0,79)	3,04 (1,06)	2,80 (1,30)
Practical courses	More than 50%	2,86 (1,10)	2,64 (1,07)	2,91 (1,14)
	Less than 50%	2,77 (1,09)	2,75 (0,94)	3,00 (1,41)

For the social and natural sciences, the problems are also serious (overall 3.8 for social sciences and 3.5 for natural sciences on a 5-point scale). For practical courses the problems reported were less serious (overall 2.77). For social sciences, natural sciences and practical courses no differences in reported problems with diversity in literacy competences were significant; so for these courses the extent of perceived problems is the same for mono- and multicultural classes and the educational levels investigated.

For maths (arithmetic) the problems reported were moderate (overall 3.15 on a 5-point scale) and for ICT less serious (overall 2.77). The analyses of variance for these courses indicated a significant difference in problems reported between mono- and multicultural classrooms (more problems in a multicultural classroom) and no differences between the educational levels distinguished.

#### *The level of literacy competences and success rates*

This section examines the third and fourth hypothesis and goes into the achievement levels of the pupils. Firstly, we examine the achievement level on each of the literacy competences, then we go into the necessary level to complete the course.

The results regarding hypothesis 3, the achievement levels on literacy competences, are reported in Table 5. Analyses indicate that teachers of classrooms of less than 50% T1-Dutch pupils reported low levels of achievement on all literacy competences; all averages are below 3 what means that on average these classrooms score lower than teachers would expect given the school year. The differences between the mono- and multicultural classes are significant except for vocabulary (frequent as well as infrequent words).

Table 5: Achievement level on literacy competences (1 = worse than expected; 3 = about as to be expected; 5 = much better than expected).

Indicators of literacy	T1-Dutch	Primary school	Junior high	Senior high
Vocabulary frequent words	More than 50%	3,27 (0,79)	2,96 (1,09)	3,33 (0,71)
	Less than 50%	2,87 (1,23)	2,68 (1,06)	3,00 (1,41)
Vocabulary infrequent words	More than 50%	2,73 (1,10)	2,33 (0,87)	3,00 (0,93)
	Less than 50%	2,36 (0,90)	2,30 (0,72)	2,50 (0,58)
Meaning at sentence level	More than 50%	3,14 (0,86)	2,92 (1,02)	3,22 (0,67)
	Less than 50%	2,64 (0,95)	2,54 (0,96)	2,50 (1,00)
Meaning at section level	More than 50%	3,00 (0,88)	2,87 (0,95)	3,11 (0,78)
	Less than 50%	2,47 (0,70)	2,54 (0,88)	2,75 (0,96)
Inferences	More than 50%	3,15 (0,69)	2,75 (0,94)	3,25 (0,71)
	Less than 50%	2,50 (0,98)	2,56 (0,89)	2,75 (0,50)
Line of argument	More than 50%	3,00 (0,91)	2,76 (0,97)	3,33 (1,00)
	Less than 50%	2,53 (0,52)	2,46 (0,86)	2,50 (0,58)
Global meaning text	More than 50%	3,27 (0,70)	2,84 (0,89)	3,33 (1,00)
	Less than 50%	2,75 (1,07)	2,25 (0,84)	3,00 (0,96)

Remarkable is that no differences were detected between the educational levels, except for global meaning of the text. For global meaning, pupils at primary school and junior high school have a similar achievement level, but lower than those pupils at senior high school. These results indicate that teachers took the educational level into consideration (as was asked for) when stating the perceived achievement level.

In the last analyses, as reported in Table 6, we go into the proportion of pupils that achieve the necessary level on a literacy competence to finish the course successfully.

Table 6: Average (standard deviations in brackets) proportion of pupils that archive the necessary level to finish the course successfully (1 = less than 10%; 3 = 50 %; 5 = almost 100%).

Indicators of literacy	T1-Dutch	Primary school	Junior high	Senior high
Vocabulary frequent words	More than 50%	4,38 (0,65)	4,14 (0,94)	4,13 (0,84)
	Less than 50%	3,10 (1,41)	3,80 (1,04)	3,75 (0,96)
Vocabulary infrequent words	More than 50%	3,85 (0,99)	3,59 (1,14)	3,57 (0,79)
	Less than 50%	2,58 (1,07)	3,25 (0,89)	2,50 (0,58)
Meaning at sentence level	More than 50%	4,23 (0,44)	4,00 (0,86)	3,88 (0,84)
	Less than 50%	2,74 (1,15)	3,42 (1,02)	3,75 (0,50)
Meaning at section level	More than 50%	3,92 (0,76)	3,85 (0,99)	3,75 (0,89)
	Less than 50%	2,47 (1,01)	3,38 (1,01)	3,50 (0,58)
Inferences	More than 50%	3,64 (0,92)	3,57 (1,12)	3,86 (0,90)
	Less than 50%	2,50 (0,89)	3,00 (0,98)	2,75 (0,50)
Line of argument	More than 50%	3,83 (0,84)	3,59 (1,01)	3,62 (1,06)
	Less than 50%	2,14 (0,66)	3,04 (0,99)	2,50 (0,58)
Global meaning text	More than 50%	4,23 (0,60)	3,86 (0,91)	3,75 (0,89)
	Less than 50%	2,71 (1,21)	3,42 (1,05)	3,25 (0,50)

Table 6 indicates that teachers of classrooms with more than 50% T1-Dutch pupils expect that more pupils will archive the necessary level on all literacy competences to finish the course

successfully. For all literacy competences distinguished this difference is significant. In addition, the table shows that the percentage of pupils (in both types of classrooms) that archive the necessary level decreases as the literacy competence gets more complex. In the case of classrooms with more than 50% T1-Dutch pupils this proportion is still approximately 60%. However, in the case of classrooms with fewer than 50% T1-Dutch pupils, the percentage drops below 50% (indicated by a 3). Again, there are no differences between educational levels, as can be expected.

## Conclusion and discussion

In general, (not differentiated between types of classrooms) the extent of problems perceived with literacy competences is considerable. In a classroom with predominantly T1-Dutch pupils, teachers in primary school and junior high school experience on average quite a lot of problems with the competences listening and meaning analysis (about 3,5 on a five-point scale), and this is about a half point less than the extent of problems experienced by teachers with predominantly T2-Dutch pupils. Like the theoretical framework (as well as generally) suggested, teachers of multicultural classes (predominately Dutch as a second language) experience more problems related to literacy competences during their day-to-day teaching practice than do teachers of monocultural classes. The extent of problems experienced in teaching multicultural classes can be qualified as much (4 on a five-point scale).

The extent in which problems with literacy competences are experienced, drops sharply in senior high school, and also the difference between mono- and multicultural classes are there less pronounced. This decrease in literacy problems experienced may be explained by school career (at senior high school, pupils have more experience with the school context) and socio-economic background of the pupils (larger probability of higher social status parents, what affects literacy competences acquired by primary socialization). In addition, intelligence may play a role. In additional research more attention will be paid to socio-economic and primary socialization factors that go hand in hand with literacy competences.

The problems with literacy competences are not limited for language courses. The problems reported were serious for language courses, social sciences, and natural sciences. This is true for mono- as well as multicultural classrooms. The problems with literacy competences are moderate for maths and ICT and for these courses the problems are larger for multicultural classrooms.

Based on the theoretical framework, we expected that literacy competences affect the probability that a pupil will finish the course successfully. Firstly, we examined the achievement level on each of the literacy competences distinguished. For primary school and senior high school, teachers of multicultural classrooms reported that on average their pupils score lower than the level that could be expected given the school year, while teachers of monocultural

classrooms report that their pupils on average score about as to be expected. Striking is that teachers of junior high school report that their pupils (mono- as well as multicultural class) score on average below the expected level. However, there still is a marked difference between the expected level for pupils in a monocultural class and those in a multicultural class.

This pattern of differences between the mono- and multicultural classroom also appears when examining the proportion of pupils that reaches the necessary level to complete the course. The results indicated that in a classroom with predominantly T2-Dutch (compared to T1-Dutch classrooms) a smaller percentage achieves the necessary level on each literacy competence to finish the course successfully. The differences between a mono- and multicultural classroom are structural and large. In primary school the difference is often more than 20% (one point of a five-point scale), and about 10% (0,5 point on a five-point scale) in junior high school. In senior high school, the difference between mono- and multicultural classes is more difficult to pinpoint: monocultural classes still have a higher expected success rate, however, the differences are rather small at simple literacy competences (vocabulary) and increase when literacy competences get more complex (difference of almost 20% by inferences).

These results indicate that it is desirable to pay attention to the acquisition of literacy competences in a diverse, multicultural classroom in original education and refresher courses of teachers. In multicultural classrooms teachers experience multiple (communication-)problems related to diversity in literacy competences of their pupils. These problems go hand in hand with achievement levels. When we look at the extent teachers reported having followed a course (in original education and refresher courses) about this topic, we conclude that most teachers have no or barely any training. This is a telling observation, because it is in multicultural classes in particular that the problems are huge, and have a dramatic impact on the success rate. Moreover, the problems are extremely large in primary school where the foundation is laid for the pupils' future school careers.

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