Literacy development of low-achieving adolescents: The role of engagement in academic reading and writing

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Introduction

The issue of adolescent literacy development

Many people are concerned about the literacy abilities of youngsters. In education and at work many youngsters experience difficulties in understanding what they read and in producing comprehensible texts. Studies confirm that there is reason for concern. In many countries, a large part of the adolescents has difficulties reading texts at levels needed for the school curriculum and for future professions and citizenship (Alliance for Excellent Education, 2006; Baumert et al., 2001; Dagevos, Gijsberts & Van Praag, 2003; Hacquebord, Linthorst, Stellingwerf & de Zeeuw, 2004; Hofman, Spijkerboer & Timmermans, 2009; Inspectie van het onderwijs, 2008; Lempke et al., 2004; OECD, 2000; 2003; 2006). For Dutch adolescents, Hacquebord et al. (2004; 2007) found that at the entrance of secondary school about 20 to 30 percent of the students is not able to comprehend their textbooks adequately. In addition, Bohnenn et al. (2004) reported that students have much difficulty composing comprehensible texts when leaving secondary education. Especially, in the lowest tracks of Dutch secondary (prevocational) education problems with students’ reading and writing are apparent. Research by the Dutch Inspectorate on Education (2008) and CITO (Wijnstra, 2001) show that particularly students in the two lowest tracks (basisberoepsgerichte leerweg and kaderberoepsgerichte leerweg) have severe literacy difficulties.

These findings are alarming since reading and writing are not only a pedagogical goal in itself, but also serve as a means for transfer of all content knowledge in schools. In other words, they are tools to accomplish a variety of goals, such as giving a report or expressing an opinion supported by evidence, and for extending and deepening students’ content knowledge (Chall, 1996; Graham & Perin, 2007). Problems with reading and writing do not only have consequences for academic success in the language arts but also for academic achievement in content areas, such as history, social sciences, economics or geography (Alvermann, 2001). Difficulties with reading and writing may even lead to school dropout (Herwijer, 2008).

In addition, the explosion of digital communication in professional and everyday life brings reading and writing into play as never before. Even in practical professions such as chef, mechanic, nurse, shop assistant or security guard, - professions for which prevocational education prepares students - one needs to be able to communicate with different forms of written communication to be successful. Modern citizenship also demands quite advanced written literacy abilities. Think of taking out an insurance policy, negotiating a mortgage or making tax declarations. Finally, keeping in touch
with family, friends and relatives is currently almost impossible to imagine without (digital) written communication. Not surprisingly, literacy abilities are essential predictors of academic and professional success and are a basic requirement for successful participation in society as a modern citizen.

The gap between many youngsters’ poor literacy abilities and the growing demands in school, workplace and community raises questions about the nature of literacy development of low-achieving adolescents. Do these adolescents make progress in reading and writing proficiency? Which factors promote or impede development of these skills? What relevant differences exist among the group of low-achievers in respect to their literacy development? Although a great deal of research has focused on reading and writing of heterogeneous groups of adolescents (Kamil, Pearson, Birr Moje & Afflerbach, 2012; McArthur, Graham & Fitzgerald, 2008), our current understanding of adolescents’ literacy development is quite limited. An important reason is that studies hitherto mainly used cross-sectional designs. Few longitudinal studies have been performed yet. As a result, there is some insight in how students with good and poor literacy skills differ from each other, but there is little understanding of how students yielding more progression differ from students yielding less progression or from who stagnate. To expand our understanding of adolescents’ literacy development, longitudinal research is needed that takes into account factors associated with both the level of literacy proficiency and its development. Therefore, this thesis explores factors underlying both literacy proficiency level and development in the course of three academic grades (grade 7 to 9)\(^1\).

\footnote{\textsuperscript{1} This dissertation is part of a NWO special field of interest called studies into Adolescent Literacy of Students At-risk (SALSA, Dutch translation Studie naar Achtergronden van Lees- en Schrijfontwikkeling bij Adolescenten) in which potential promoting and impeding factors of literacy development of low-achieving adolescents are explored by in-depth longitudinal studies in three areas: the home environment, the school environment and with respect to students’ individual skills and attributes. The project on the home environment examines the variety and role of literacy tasks enacted in the out-of-school contexts. The part project on individual skills and attributes investigated to what extent development of literacy skills of low-achieving adolescents with native Dutch and non-native Dutch backgrounds is associated with a various types of linguistic knowledge, fluency of linguistic skills and metacognition. In a cross-sectional study predictions about the most important factors are tested in a larger sample. More information about project SALSA can be found on: http://www.salsa.socsci.uva.nl.}
Low-achieving adolescents

Another important reason for our limited understanding of literacy development of low achieving adolescents is that research hitherto was directed at heterogeneous groups of adolescent students with broad ranges of proficiency (Retelsdorf, Köller & Möller, 2011; Van den Bergh & Rijlaarsdam, 1999), disabled student populations (De La Paz, Swanson & Graham, 1998; Englert, Raphael, Fear & Anderson, 1988; Graham, 1997) or younger students in earlier stages of literacy development (Baker & Wigfield, 1999; Becker, McElvany & Kortenbruck, 2010; Guthrie et al., 2004; Guthrie et al., 2007; Taboada et al., 2009; Pressley, 2006). In heterogeneous samples important patterns emerging in the lowest achieving groups become indeterminable because they are obscured by the large differences between students. In addition, the combination of low-achieving and adolescents makes that findings from different or heterogeneous populations may not hold true for the particular situation of low-achieving adolescents. These students are in a special position, both educationally and psychologically, which makes generalizing insights from studies of younger, disabled or broad samples of adolescents to the situation of low-achieving adolescents hazardous.

For example, while young beginning readers and writers have much difficulty with technical aspects of reading (decoding and word identification) and writing (handwriting, spelling and sentence construction), most low-achieving adolescents read and write words on paper accurately (Alexander & Murphy, 1998; Biancarosa & Snow, 2006; Graham & Perin, 2007; Graham & Harris, 2012). Their most common problem is that they have difficulty in comprehending what they read and to compose texts that are comprehensible for other readers. Furthermore, it is often observed that adolescents are less involved in reading and writing than younger students. Strong declines in reading behavior are observed in early adolescence and among low-achieving students (Harter, Whitesell & Kowalski, 1992; Wigfield & Eccles, 2000). In addition, traditional modes of reading and writing face strong competition of new media literacy practices (Van Kruistum, Leseman & De Haan, in prep) and leisure time activities such as surfing the Internet, watching television, gaming, sports and hanging out with friends (Land, Van den Bergh & Sanders, 2007; Wilson & Casey, 2007). Furthermore, adolescents undergo major physical and mental changes. One important change is that students get more control over their cognitions when they grow older, particularly between 10 and 12 years old (Inhelder & Piaget, 1958; Alexander, Jetton & Kulikowich, 1995; Veenman et al., 2006).

With the transition of primary school to secondary school (in The Netherlands at grade 7) the situation of low-achieving students’ changes considerably. Their world expands literally and figuratively. With the change of school, they start exploring the
world outside the familiar boundaries of home and neighborhood. In secondary education, they have to deal with many new subjects and instructions by teachers who are specialized in their own subject domain. In the Netherlands, students are enrolled in a school track adjusted to their abilities and needs at secondary school entrance. In contrast to primary education, the students are surrounded by classmates with more or less comparable abilities and needs, and have learning materials, teachers and curriculum goals that take their poor literacy skills into account.

Moreover, literacy tasks in secondary education becomes increasingly diverse, long and complex. Informative and expository text genres are more common than narratives and students are expected to coordinate multiple text sources (Fang & Schleppegrell, 2010). The more challenging and rewarding literacy practices in the secondary school years require that students go far beyond the literacy skills of the elementary grades. They need to become skilled in reading purposefully, select materials that are of interest, learn from those materials, figure out the meanings of unfamiliar words, integrate new information with their background knowledge, resolve conflicting content in different texts, differentiate fact from opinion and recognize the perspective of the author. In brief, they need to aim at deep text comprehension instead of achieving a basic understanding of texts (Biancarosa & Snow, 2006; Graesser, 2007). In regard to writing, students need to produce different types of written documentation. This is a challenging task, demanding for a complex integration of knowledge and skills: strategies to regulate the writing process, skills to formulate correct sentences, and knowledge about specific genres and writing conventions. Moreover, they need to adapt their writing flexibly to the contexts for which the texts are produced (De La Paz & Graham, 2002; Graham & Perin, 2007).

Early adolescence is thus a turbulent period because of several socio-emotional changes involving the forming of new identities with possible consequences for participation at school and the development of literacy abilities (Alexander et al., 1995; Bronfenbrenner & Morris, 1998). Despite that low-achieving adolescents as a group, may have a lot in common, important differences among this group of students may be expected as well. Students increasingly show differences in ability, self-beliefs and exerted effort in academic activities from early adolescence on (Nicholls, 1990; Stipek, 1998). Therefore, this study is focused on relevant differences in literacy development within the group of low-achieving adolescents. This thesis is specifically directed at the large group of students who are enrolled in the two lowest school tracks of prevocational secondary education, who are not suffering from learning or behavioral disorders but nevertheless have severe difficulties with forms of written communication.
Engagement in academic reading and writing

School has a primary concern in the development of written literacy abilities. While students already can speak and listen at primary school entrance, most of them cannot read or write yet when entering formal education. In contrast, reading and writing are complex skills that develop through the school years and far beyond. This thesis is focused at what educational factors can explain differences in literacy development.

The aim of this thesis is to deepen our insights in the impact of motivational and educational factors on literacy proficiency and development of low-achieving adolescents. In search of understanding factors related to academic success, the concept of students’ engagement in academic tasks has received increasing interest in recent years. Definitions of engagement emphasize that it is a multidimensional construct including affective engagement, cognitive engagement and behavioral engagement (Appleton, Christenson & Furlong, 2008; Baker & Wigfield, 1999; Fredricks, Paris & Blumenfeld, 2004; Furlong et al., 2003; Guthrie, Wigfield & You, 2012; Linnenbrink & Pintrich, 2003; Skinner, Marchand, Kindermann & Furrer, 2008). Affective engagements refers to students’ feelings and emotional reactions to an academic task or school in general, their beliefs about the ability to perform an academic task and beliefs about the importance and utility of academic tasks. Cognitive engagement refers to students’ willingness to exert mental effort needed to perform challenging academic tasks as well as the use of self-regulatory strategies to guide one’s task execution. Behavioral engagement refers to the actual participation in academic activities at school. In other words, engagement is a multidimensional construct capturing the quality of students’ feelings, thoughts and behavior concerning a more or less specified object, such as school, learning or literacy. In this definition, engagement is viewed as the interplay between students and their learning environment and consists of affective processes, cognitive strategies and actual behavior in the classroom.

In this thesis, the construct of engagement is used for exploring motivational and educational factors that may explain literacy development of low-achieving adolescents. Multiple aspects of the three engagement facets are selected from the literature about reading and writing proficiency. For a fairly long time researchers in the field of reading and writing have focused on the cognitive processes that students are engaged in. Studies show that differences in the way students regulate their reading and writing processes are related to differences in text comprehension (Baker & Brown, 1984; Pearson, Roehler, Dole & Duffy, 1992; Pressley, 2000) and the quality of texts written (Bereiter & Scardamalia, 1987; Graham, 2006; Van den Bergh & Rijlaarsdam, 1999). Since reading and writing are cognitively demanding activities students can choose to do or not, success in these activities seems also determined by
motivational processes. Therefore, interest in the role of affective processes in reading and writing emerged over the years (Baker & Wigfield, 1999; Hayes, 1996; Guthrie & Wigfield, 2000; Zimmerman & Risemberg, 1997). In addition, the expectancy-value framework of academic motivation (Wigfield & Eccles, 2000; Eccles, 2005) assumes that students’ confidence in their own proficiency (efficacy beliefs) and their affective reactions (task values) influence students’ performance on literacy tasks. Furthermore, it is emphasized that students must actually participate in reading and writing activities to benefit from education (Fredricks et al., 2004; Pressley, et al., 2001; Greenwood, Horton & Utley, 2002). Therefore, students’ participation in literacy activities at school has been added to the list of relevant predictors of literacy development. In this thesis, students’ use of strategies for self-regulation in reading and writing tasks (cognitive engagement), their efficacy beliefs and task values related to literacy tasks (affective engagement), and their time-on-task behavior in literacy activities in the classroom (behavioral engagement) were investigated.

Students’ engagement in academic tasks is assumed to be responsive to variation in learning contexts and the learning opportunities and tasks offered in the classroom (Finn & Rock, 1997). Therefore, we give special attention to the contexts in which literacy activities are enacted at school. Reading and writing are activities that are not limited to the language arts curriculum but are also enacted across disciplines involving different purposes, forms and processes (Applebee & Langer, 2006; Kiuhara, Graham & Hawken, 2009; Van Gelderen, 1994). In the language arts, literacy practices mainly focus on improving literacy skills, while in the content areas literacy practices are instrumental for acquiring knowledge about subject contents. This thesis, therefore, pays attention to two different subject domains: language arts and social studies. For both domains, the types, contents and ways literacy activities are addressed are explored. Focal points for this exploration are informed by prominent theories of language and literacy learning, such as Content-Based Language Learning (Brinton, Snow & Wesche, 1989; Bygate, Skehan & Swain, 2001; Hajer & Meestringa, 2004), Concept-Oriented Reading Instruction (Guthrie & Wigfield, 2000; Guthrie et al, 2004; Wigfield et al., 2008), Self-Regulated Strategy Development (Graham & Harris, 1993), and Balanced Literacy Instruction (Pressley, 2006; Langer, 2001).

In addition, special attention is paid to a detailed analysis of students’ approach of academic reading and writing tasks similar to the literacy tasks they encounter in their school curriculum. These detailed analyses do not only yield in-depths insights in the repertoire of strategies available to low-achieving adolescents for dealing with the challenges of such literacy tasks, but also reveal pathways for education to enrich this repertoire of strategies of low-achieving adolescents.
Outline of the thesis

In this thesis five studies are reported that are clustered in three parts. In chapters 1 and 2, associations between reading and writing proficiency and development with the distinguished aspects of engagement are analyzed (Part I). Chapter 3 reports our analyses of the relations between literacy learning contexts in language arts and social studies lessons with literacy development (both reading and writing) (Part II). Finally, chapters 4 and 5 zoom in on patterns of cognitive self-regulation in relation to reading and writing task performance (Part III).