International Peer Reviewed E Journal of English Language & Literature Studies
ISSN: 2583-5963
www.ell.iaar.co Page No. 163 To 229

6

Academic Comprehensive Writing Skills Enhancement for the Learners of School

Asha Bavarava

Assistant Professor,

Dept. of English, R.O. Patel Women's College, Morbi

Abstract:

There is a need to examine the impact of an innovative comprehensive writing curriculum in upper primary school on students' writing performance and on teachers' teaching practises, beliefs and skills. In addition to teaching genre-specific writing skills, the course stressed the importance of writing's communicative nature and the importance of writing as a process. It was implemented by 43 teachers in their regular classrooms (grades 4–6), with a total of 1052 students in three conditions: (1) a writing programme, (2) the same programme augmented with professional development sessions and coaching, and (3) a control condition in which teachers taught their regular writing lessons. Students were tested on their writing abilities three times, each time using a new writing issue to gauge their progress. In addition to classroom observations and interviews, questionnaires, teacher logs, and an assessment exam including text were used to gather information about teachers' beliefs, attitudes, and skills. Students' writing ability and the amount of time instructors spent teaching writing skills improved as a result of the writing programme. A direct influence on lesson implementation and an indirect impact on student performance were found as a result of the complementary professional development and coaching. The results of a thorough examination show that this innovative method of teaching writing in the upper grades of elementary schools is effective.

Keywords: Writing instruction, writing performance, teachers' beliefs, teachers' skills, primary school

1. Introduction

There are serious worries in the Netherlands about the level of writing skill displayed by elementary school students. It was observed that two thirds of sixth-grade students fail to meet basic writing criteria, with their writings exhibiting substantial flaws in substance, style and communication efficacy in both trials (Krom, Van de Gein, Van der Hoeven, et al., 2004; Kuhlemeier, Van Til, Hemker, De Klijn, &Feenstra, 2013). As a result, pupils made just a little amount of development between grades 4 and 6. (Kuhlemeier et al., 2013). Having good writing skills is essential for kids' academic success and participation in society, thus this finding should be taken very seriously.

Many teachers in Dutch primary schools are unable to properly teach writing because of a lack of attention to writing and writing education, as evidenced by surveys and classroom observations (Franssen &Aarnoutse, 2003; Kuhlemeier et al., 2013; for a review see Bonset&Hoogeveen, 2007). Two thirds of the schools examined by the Dutch Inspectorate of Education had insufficient writing instruction, according to the study's findings (Henkens, 2010). Furthermore, instructors are rarely given the chance to learn about writing instruction during their own professional development (Van der Leeuw, 2006). As a whole, a large number of students are struggling with their writing, and their professors are often at a loss on how to help them.

Writing teaching in the upper grades of Dutch elementary schools was a primary goal for this research project (Grades 4 to 6, age 9-12). In order to achieve this, we planned, performed, and assessed a complete writing programme, which comprised teaching resources as well as a supplemental professional development (PD) programme, which was reinforced by individual teacher coaching. As a result, implementation of the writing curriculum was left entirely to the instructors. As a consequence of teachers receiving professional development and coaching to assist them implement the writing programme in the upper primary school years, adapt it to their needs and local context and enhance their students' writing performance, students' writing performance has been improved.

Research and dissemination were the goals of the study. The purpose of our study was not only to test the efficacy of a certain writing programme, but also the development of an innovative approach to the process. Writing programmes must be realistic in regular practise,

useful for instructors, adaptable to local changes, and generally recognised as programmes that meet the curricular needs of teachers if they are to be successful. It is necessary to put into practise what educators think to be the intended curriculum in this country. Finally, we'll analyse the current situation of the intended and realised writing curriculum, which serves as the basis for innovation.

As a result, research has shown that allowing teachers to modify the programme is beneficial because it can promote "the effective and sustained implementation of effective interventions" can help increase teachers' motivation and engagement, and in some cases, teacher modifications can have a positive impact on the outcomes of an intervention (Harn, Parisi, and Stoolmiller, 2013, p. 190). (Dusenbury, Brannigan, Falco, & Hansen, 2003, p. 251- 252).

All comprehensive writing and professional development programmes are built on a foundation of these core concepts, and this section will offer an overview of writing training in the Netherlands.

2. Theoretical background

2.1 The teaching of writing in the Netherlands

Teaching writing techniques was done in line with three approaches: emphasising the communicative component of writing, emphasising the process of composition, and emphasising the explicit teaching of writing processes. As a result of our discussions with writing education experts and our research into previous writing intervention studies (Rietdijk et al., in press), we were able to make an informed decision on the best way to help students improve their written communication skills (e.g., Graham &Perin, 2007; Koster, Tribushinina, De Jong, & Van den Bergh, 2015).

Since the 1970s, in the Netherlands, the 'functional' approach to language training has been widely advocated, which is known as the 'communicative' approach (Ten Brinke, 1976; LeidseWerkgroepMoedertaaldidactiek, 1980). The conventional, form-focused approaches to language teaching that emphasise grammatical precision and the use of "fill in the blank" spelling, style, and sentence building exercises instead of real sentences were formed in opposition to democracy and other social developments (Kroon, 1985). The communicative

method emphasises the development of pupils' "communicative competence." instead of grammatical accuracy. Hymes (1972) used the term "social competence" to describe the capacity to successfully communicate in a range of social settings. The following is an explanation: This talent demands not just fluency in the language but also an awareness of complex social rules, such as when, why, how, and to whom specific statements should be used in various contexts. When it comes to communication, the communicative approach sees language use in the context of social interaction, as a form of purpose-driven communication.

If you want students to learn how to write effectively, they must be taught how they may do so in a range of situations in the real world (semi-)real-world contexts (e.g., convincing, entertaining, and so on). For the most part, students learn to write by writing in a variety of communicative genres while paying close attention to the rhetorical objective as well as the expectations placed on them by their readers. A student's work becomes more authentic and significant when they obtain input from their readers rather than just the teacher when they use the communicative technique (Hoogeveen& Van Gelderen, 2013). Student writers put their works to the test by seeing how readers seek to make sense of their messages as part of the communicative method, which includes both "learning by doing" and "learning by observation" (Rijlaarsdam et al., 2008, 2009). To help their writing become more effective communicators, authors are urged to "read as the reader," which gives a tremendous motivator to create goals for revision and redrafting.

For example, Koster et al. (2015) found that goal setting had a positive influence on the quality of students' texts (ES = 2.03), and that peer support had a somewhat positive effect on the writing process (ES =.59). Research reveals that students' writings may benefit from the experience of'reading as the reader,' in which the author reads as if he or she was writing (Evers-Vermeul& Van den Bergh, 2009; Holliway& McCutchen, 2004; Rijlaarsdam et al., 2008, 2009).

Amidst significant support from curriculum designers and language teachers in the Netherlands for communicative writing in primary schools, only a small number of primary schools have implemented it. Many elementary school teachers fail to emphasise the communicative aspects of writing, according to Rietdijk et al. (in press). A total of 61 instructors participated in the study, which included questionnaires, interviews, and

classroom observations. Students' papers are usually only checked and marked by the teacher, who is particularly concerned with spelling and punctuation issues, because writing assignments are sometimes made up on the spot. One probable cause is that elementary school textbooks and other instructional materials still fail to adequately address the importance of communication (Franssen &Aarnoutse, 2003). We wanted to help teachers include communicative writing into their lesson planning and lessons by including it in the entire writing curriculum.

A "social turn" in education may be attributed to the use of a communicative approach to writing teaching. A second movement arose in the late 1970s, driven by cognitive ideas on the act of writing, which turned the emphasis away from the result and toward the process of writing. When Flower and Hayes (1981) first came up with their well-known writing process model in the early 1980s, Hayes tweaked it a few years later. Yates (Hayes, 1996). As a problem-solving process in which ideas are actively created to attain communicative goals, writing was viewed as such. Several cognitive activities were required, including creating and recording thoughts, recording them, and improving them once they were formed. From the outset, the method was used in Dutch secondary and tertiary education (Bochardt, 1984; Rijlaarsdam, 1986). With regard to classroom practise, one important effect has been to set clear boundaries between draughts and final versions and to recognise that developing ideas in one form and presenting them in another are two quite different things.

Step-by-step methods, which we would now refer to as strategies, were commonplace in secondary and higher education textbooks at the time, and are still used today. How to choose and organise information from sources, for example, and which text style is best suited for each communication action, such as advocating or defending a policy move, was the focus of these strategies (Braet, 1979; Drop & De Vries, 1976). In most cases, training would begin with a quick demonstration or explanation of the method or processes, followed by practise sessions.

Certain features of Graham and Perin (2007)'s process approach are combined with the Dutch procedural approach to producing texts, including a significant emphasis on planning, drafting, and revising. It is also important to have a purpose and an audience in mind while you write. An emphasis on student ownership of their writing and self-reflection, as well as

collaborative work and individualised teaching, are absent from the Dutch curricular ideals of the 1980s. Graham and Sandmel (2011) conducted a meta-analysis using data from 29 intervention trials to investigate the efficacy of Graham and Perin's process writing teaching. According to the researchers, process writing had a somewhat positive impact on students' writing quality in general education classrooms from grades 1 to 12 (ES = 0.34). In grades 4-12, Graham and Perin found that the process writing technique had an impact size of.32 on the quality of students' writing, which is in line with the process writing approach's stated effect size of.32 on students' writing (2007). Only when further professional development was provided did the process writing technique become useful. According to the researchers, process writing looks to be a "effective, but not very strong strategy for teaching writing to kids in general education classrooms." (Graham &Sandmel, 2011, p.404) (Graham &Sandmel, 2011).

Despite the fact that teaching process writing has been demonstrated to be advantageous, there are indicators that it is not being successfully utilised in Dutch primary schools.. Most instructors in the Netherlands employ pre-writing exercises, but just a third of them encourage students to rewrite their papers once they've finished writing them, according to the Dutch Inspectorate (Henkens, 2010). Observations in the classroom corroborated these results (Franssen &Aarnoutse, 2003; Rietdijk et al., in press). Because of the importance of the writing process and the necessity for students to become more conscious of the actions involved in writing, a process writing approach was introduced into our complete writing curriculum. In our writing classes, students were encouraged to work in groups to finish their written tasks.

Writing approach instruction is a rare occurrence in Dutch primary schools, according to Rietdijk et al. (in press), who conducted teacher interviews and classroom observations. Rather than reading methods, which are heavily emphasised in Dutch schools, this is a language strategy. Instruction in writing strategy is all about explicit and systematic teaching of writing skills for planning, creating, rewriting, and editing texts. With this technique, students are given far more detailed instruction than they would get from a typical process approach, which emphasises the usage of a limited number of abilities (Graham &Sandmel, 2011).

Teaching writing strategy through the use of writing strategy education is an effective and well-researched approach. Researchers have identified substantial beneficial impacts on the quality of primary school students' writing through strategy training (ES = 1.02 and.96) in their meta-analyses of writing treatments (see examples in the table). We decided to incorporate writing technique instruction into our complete writing curriculum because of this.

The three approaches (communicative writing, process writing, and writing strategy training) overlap and support one another rather than being mutually incompatible. Planning, drafting, and rewriting are all part of both the process approach and the writing strategy training, but the amount of explicit teaching varies depending on the approach. The communicative strategy, as we defined it, also includes writing for actual audiences and getting input from real readers, and both approaches may incorporate these components. Communication-related writing projects don't usually make it into writing strategy classes. We think that teaching writing methods explicitly and systematically can assist students' communicative writing develop by paying attention to processes.

2.2 The comprehensive writing program in a nutshell

Figure 1. Three embedded approaches to the teaching of writing in the comprehensive writing program.

Writing as a process and genre-specific tactics for five various purposes or genres were all part of our complete writing curriculum, which also included a focus on the communicative

aspects of writing and writing as a process. As can be seen in Figure 1, the complete writing program's framework incorporates all three strategies. Students are presented with a communication issue and are also told of the additional purpose of writing and the appropriate genre to write in (the outer ring of Figure 1). As a result, students are encouraged to break down the writing process into more manageable stages and to work collaboratively on texts that fit under a defined genre during the conception, drafting, and editing stages (middle ring). Writing skills relevant to a certain genre are taught throughout the curriculum and are utilised in the planning, drafting and revising stages. The complete writing programme is described in further detail in Section 3.3 of this manual.

2.3 Implementing a sustainable innovation

As part of our analysis, we found that instructors were more likely to continue using the Nieuwsbegrip (Comprehension of the News) reading comprehension programme if the writing component was integrated into the curriculum. More than 75% of elementary schools in the Netherlands have a licence to utilise the Nieuwsbegrip programme (personal communication, educational centre CED- Group, February 21, 2017). Every week, this online programme gives students with a reading unit in which they read a current news bulletin, such as one on the opening of the Dutch parliament, the Olympic Games, or Organ Donor Week, among other subjects. Reading methods are drilled into pupils in order to help them interpret the content of these reports. Users of the Nieuwsbegrip service can access and download educational materials and instructions whenever they want via the website (www.nieuwsbegrip.nl/). Teachers can also have students use laptops to access the materials, which they can then print off.

During the intervention, writing units were sent every other week in addition to the reading programme. Nieuwsbegrip's writing education specialists oversaw its design and production and worked closely with the research team to accomplish the project..

The integration of the entire writing programme into the digital Nieuwsbegrip environment resulted in a wide variety of advantages. Students began by writing about current events that they found intriguing and inspirational. Having read about the news item before to writing about it, pupils already had a basic comprehension of the problem they were supposed to write about. Because our research participants were already familiar with providing reading

and writing strategy training, we were able to use their expertise in these areas to help students learn. When it comes to the writing software's adaptability, the design principles stay consistent but the writing topics are constantly updated to reflect current events and user feedback is taken into consideration when making changes to the programme. To make things even easier, this was our fourth time preparing the lecture materials in advance, as well as determining how to distribute them (via the Nieuwsbegrip website). Nieuwsbegrip writing courses continued to be designed and offered even after the intervention ended and the research money expired, which is crucial from a long-term sustainability standpoint.

2.4 Continuing Professional Development (CPD) and Coaching

To help teachers implement the complete writing curriculum, a range of activities and resources were made available to them. Each new unit came with a teacher manual that included scripts for the modelling exercises, as well as an introductory meeting at which the program's basic principles and structure were discussed. Additionally, the Nieuwsbegrip website made instructional materials (such as lesson plans and writing assignments) readily available to teachers.

The new writing programme may not run as smoothly or as long as expected if just resources are provided to the students. School reform and the enhancement of classroom practises in general necessitate the use of professional development (PD) (Garet, Porter, Desimone, Birman, & Yoon, 2001; McKeown, Brindle, Harris, et al., 2016; Opfer& Pedder, 2011). Participants in an effective professional development programme have the opportunity to enhance their own knowledge and skills, while also changing their attitudes and perceptions of teaching. By using what they've learned, they'll be able to enhance their instruction and help their students learn more effectively (Desimone, 2009).

Five core characteristics of high-quality professional development have been identified in studies: (a) a focus on subject matter content and how students can learn it; (b) opportunities for teachers' active learning, such as inquiry and discussion; (c) coherence or alignment with teachers' own learning goals and their learning goals for students; (d) cooperation or exchange between teachers and other educators (Desimone, 2009; Garet et al., 2001; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Van Veen, Zwart, Meirink, &Verloop, 2010). One further way to guarantee that new teaching methods are adopted correctly and consistently is

to give individual coaching following a professional development course (Kretlow& Bartholomew, 2010).

In order to achieve the study's goals, it was necessary to develop and implement a professional development programme based on these principles, support teachers in implementing the comprehensive writing programme, and evaluate the program's effects on teachers' classroom practises as well as their students' writing abilities. Although Nieuwsbegrip practitioners were able to continue the full professional development programme after the study was completed, they had to do so in an abbreviated format.

2.5 Beliefs and abilities of teachers

Students' writing skills can be improved by teachers modifying their classroom processes. The opinions and ability as writers of teachers are linked to their classroom writing practises. Teachers' effectiveness has been found to be positively correlated with evidence-based classroom practises, for example (e.g., Brindle, Graham, Harris, & Hebert, 2016; Rietdijk et al., in press). A recent study found that instructors' ideas about writing instruction had a role as well: the more teachers prioritised accuracy, the less likely they were to offer feedback to students on the communicative portions of their writing assignments (Rietdijk et al., in press).

A teacher's attitude and ability may therefore impact their classroom decisions, and how new programmes are introduced. Also, practises have the capacity to change people's views (Basturkmen, 2012; see also Borg, 2009). Another way of putting it is that the process of transforming educational practises is a difficult one. Because of this, it makes sense to explore how teachers' practises, beliefs, and skills in writing instruction are influenced by the innovative writing curriculum and its related professional development programme.

2.6 Research questions

It was our goal to determine whether or not students' performance, classroom practises or instructors' attitudes and skills in the field of writing education were affected by a complete writing curriculum and a supplemental professional development programme. We were able to clearly see what had changed as a result of implementing the programmes. It is also possible that the results will provide light on the variables that made the programmes successful in the first place.

Are students who participate in a complete writing programme better writers than those who receive regular instruction?

Is evidence-based teaching and student engagement boosted as a result of using a complete writing curriculum instead of traditional writing instruction?

Does the complete writing programme have an influence on instructors' opinions and abilities in relation to the teaching of writing when compared to conventional writing instruction?

Are there other positive impacts on student writing performance, classroom practises, and teacher attitudes and skills in the writing domain that complement the benefits previously documented in complementary professional development and coaching?

Students' writing abilities, as well as instructors' classroom practises, beliefs and skills, were expected to improve as a result of the writing programme. Teachers are expected to use more particular methods to writing teaching (e.g., communicative writing, process writing, and strategy instruction) as a result of the study, which we believe will have a positive impact. Teachers' views and skills in the field of writing instruction are expected to improve as a consequence of the inclusion of professional development and coaching to the current writing curriculum for students.

A whole academic year was devoted to the investigation. It improves on previous studies on writing teaching by utilising a multicomponent technique that incorporates communicative writing, a process approach, and strategy education while also aiming for long-term innovation. The purpose of this follow-up study was to see if instructors' classroom practise and student writing performance might be improved by a combination of complementary professional development and individual coaching.

3. Method

3.1 Design

An experiment with three conditions was chosen: a comprehensive writing programme only condition (WP), a comprehensive writing programme with professional development (PD), and a control condition (C). Both the WP and PD criteria asked that instructors implement the writing programme in their own classrooms. A professional development workshop was also held for the PD teachers, who received coaching to help them execute the writing programme

ISSN: 2583-5963

and improve their teaching methods. Control-teaching instructors were taught to teach writing in a usual fashion.

The study's measurement strategy included three different times to collect data: before, during, and after each of the three assessments. You may find a complete list of all measures and measurement events in the Measures section.

3.2 Participants

43 instructors and their children from 33 primary schools participated in the study, totaling 43 people. The online reading comprehension tool Nieuwsbegrip was utilised by all of the instructors, with the exception of one. As a thank you for participating, schools received a 30% discount on each instructor's Nieuwsbegrip licence. A graph demonstrating students' on-task behaviour was also provided to teachers for each lesson that was viewed by their pupils.

There were instructors in grades 4, 5, and/or 6 that participated in the research. Students in grades 4 through 6 are between the ages of 9 and 10 years old, while students in grades 5 through 6 are between the ages of 11 and 12 years old (Grade 6). Teachers in grades 5 and 6 make up over half of the workforce (47 percent), with the bulk of them combining both grades. 1

According to the Dutch Education Inspectorate, teachers were put in groups of three based on their gender, age and teaching experience, as well as the kind of school, location and quality of the school. This was followed by the assignment of one of three groups, with each group being allocated to one of three possible circumstances. At the beginning of the research, six instructors requested to be placed in a different condition, mostly because they believed the professional development condition was too time demanding. As a consequence, fewer instructors (N = 11) participated in the professional development condition than in the other two (N = 16).

These 43 teachers had a total of 1052 students engage in the research. At the beginning of the school year, a passive consent letter explaining the study's goal and methods was delivered to the parents or guardians of the participating students. Parental refusals to allow their children to take part in the study were made by seven separate households.

ISSN: 2583-5963

Background information was obtained for two-thirds of students, although data was missing for a quarter of students in the WP and control conditions and for a sixteenth of students in the PD condition, respectively. Over half (53 percent) of the pupils were female, and their average age was 10 years old (SD = 0.9). A high school diploma was only obtained by one-fifth of the children's parents, implying that both parents had only finished two years of high school.

Table 1 summarises the demographics of participants in each condition.

Teachers' gender, age, teaching experience, or part-time employment (F(2, n = 43) = 1.07, p =.59) did not change statistically among circumstances (F(6,78) =.17, p =.99). Neither the percentage of teachers who taught multiple grades (2, n = 43) nor the percentage of teachers who taught Grade 4 (alone or in combination with other grades) (2, n = 43) = 2.05 p =.36, Grade 5 (2, n = 43) = 5.96 p =.05, or Grade 6 (2, n = 43) showed any statistically significant differences. Schools' characteristics were equal in all conditions: kind of school (F(2,35)=.47, p=.63), location of school (F(2,n =43)=.07, p=.97), and Inspectorate quality rating (F(2,n =43)=.07), p=.97). On the other hand, there was a statistically significant difference in the kind of school and the method of teaching Grade 5. Post-traumatic stress disorder was underrepresented among teachers in public schools. Regardless of whether a student attends a public or private school, writing training appears to be the same.

There was a significant difference in children's age and grade level and their parents' educational level between treatments, p =.00. Students' gender did not differ substantially between treatments (p =.48), which is consistent with previous research (2, 800). Overrepresentation of fourth graders and parents with greater educational attainment was seen in the PD group compared to the other two groups analysed. F(2,981) = 7.60, p =.00 demonstrated a statistically significant difference in students' reading comprehension between the two conditions. Nonetheless, when we considered the children's ages and grade levels, the discrepancy was erased. As a whole, the three scenarios differed greatly from one another at the time of the intervention. As a result of the students' grades and ages, they were very different. Because of this, we took grades into account while analysing data.

ISSN: 2583-5963

3.3 Comprehensive Writing Program (includes all of the above)

It was divided into two parts: a rigorous writing programme (conducted under both WP and PD settings) and a training and development programme for educators and other professionals (PD condition only). At the beginning of the trial, teachers in both intervention groups were given a three-hour introduction to the writing program's fundamental concepts, primary components, and general organisation. The session was attended by educators from both groups undergoing intervention. According to the authors, the purpose of the writing programme was to help students in Dutch primary schools in grades 4 to 6 improve their writing skills. CED-Group educational designers and members of the research team collaborated to construct a unit comprising two consecutive writing lessons every other week. Educators from the educational centre CED-Group and members of the research team collaborated to create the unit.

Table 1: Participant Demographic Information per Condition

Demographics	Writing program condition (WP) *M* (*SD*)	Professional development condition (PD)	Control condition
Teachers			
Number of participants	16	11	16
Male (%)	19	36	25
Age in years	43.2 (11.9)	41.8 (10.6)	42.2 (14.2)
Teaching experience in years	15.1 (9.7)	16.4 (10.0)	16.3 (13.9)
Employment (days a week)	3.8 (1.2)	3.8 (1.4)	3.8 (1.0)
Combination of grades (%)	56	27	50
Grade (single or in combination)			
Fourth (%)	56	64	38
Fifth (%)	56	46	88
Sixth (%)	38	18	25

Each unit comprised student materials (instructions, tasks), as well as a teacher guideline. It was up to teachers under both WP and PD settings whether or not they wanted to use the materials provided to them.

ISSN: 2583-5963

After describing the key components of the comprehensive writing programme, we'll define its overall structure and detail the individual teaching and learning activities that were included in it in this section. Section 3.4 goes into additional depth about the PD programme.

Schools			
Number of schools	14	10	14
Type of school			
Public (%)	63	18	50
Non-public(%)	37	82	50
Location			
Urban (%)	50	55	50
Suburban / rural (%)	50	45	50
School quality *	3.3 (0.5)	3.1 (0.3)	3.3 (0.5)
Students			
Number of participants	381	272	399
Male (%)	48	44	49
Grade (%)			
Fourth	38	49	17
Fifth	33	40	73
Sixth	29	11	10
Age in years	10.2 (0.9)	9.9 (0.9)	10.3 (0.7)
Parents' educational level: 2 years of high school at most (%)	17	12	20
Reading comprehension**	27.6 (6.7)	29.8 (7.4)	29.2 (6.3)

*) School quality was rated by the Inspectorate on a four-point scale (1 = poor quality, 4 = good quality).
**) Reading comprehension was measured with a test developed by Aarnoutse and Kapinga (2006).

3.3.1 The most important elements of a thorough writing programme

The writing programme was developed to satisfy the requirements of students from a range of backgrounds by employing the three techniques of writing instruction indicated in Section 2, Theoretical basis of the curriculum.

Writing that has the goal of conveying information. Students' real-life experiences, both within and outside of school, served as inspiration for our communicative writing projects. Real-world aims and audiences, such as students, friends, family members, and others who

ISSN: 2583-5963

weren't in the same room as the author were always taken into consideration while writing texts.

This year, students learnt to communicate for a variety of goals, including describing and instructing; explaining; persuading; and amusing or expressing oneself. A range of genres were researched, including descriptive, instructional and explanatory texts as well as narrative and other types of writings. According to the Dutch Ministry of Education's secondary school objectives, these purposes and genres are appropriate (Expert Group Learning Trajectories, 2009). All three types of literature play an important role in the secondary school curriculum.

In both the training and feedback sessions, emphasis was placed on the text's ability to communicate effectively. The most important consideration was whether or not the text was able to accomplish its stated purpose. Activities that students were encouraged to engage in included the following: students were urged to seek for comments from their reader(s), and students were urged to watch their reader(s) try to understand their works (known as "testing your text"). We integrated it into the curriculum since previous research has shown that seeing readers is an extremely effective learning activity within the communicative paradigm (Rijlaarsdam et al., 2008).

The act of writing itself is a process. It was our goal for students to engage in the writing process on their own, in pairs, or with small groups. These tasks were connected to the method of communication used to carry them out. Students learned about the topic, the aim of the rhetoric, and the intended audience for the information they were writing about throughout the preparation stage. By watching newscasts about the issue on television and reading about it and debating it, they came up with ideas. They also brainstormed. Prewriting approaches such as creating a list, mind map, or table were also covered in order to help students better organise their thoughts for writing. As they worked on the first draught of their paper, the students collaborated with one another. After receiving feedback from actual readers, the process of modifying and rewriting was given the highest priority (see above: communicative writing). Consider the value of your classmates' and your own texts in terms of conveying information to other people.

ISSN: 2583-5963

Instructions for creating a strategy document. The complete writing program's instructional design included explicit and systematic teaching of abilities for planning, creating, and revising texts. As a result, instead of teaching a wide range of techniques that might be applied to every style of writing, we choose to focus on a certain literary genre. As a result of this decision, each genre was assigned a unique technique of instruction (see Appendix A for an example of a genre- specific strategy). In the end, the idea was that the students would be able to use these strategies on their own once they had been taught them.

We were motivated by Harris and Graham's well-researched Self-Regulated Strategy Development technique when developing our writing curriculum (Harris & Graham, 2009). Students were given six stages of instruction for each strategy: (1) activating prior knowledge about writing in this genre; (2) direct, explicit instruction; (3) support for memorization and retention of the strategy through using mnemonics; (4) modelling the strategy by the teacher, and (5) practise with materials, the teacher, and/or peers. Although we did not explicitly teach self-regulation abilities as part of our writing curriculum, our approach differed from Harris and Graham's in this respect. This was done by having students reflect on their writing process at the conclusion of each lesson and by having the instructor replicate the process (Fidalgo, Torrance, Rijlaarsdam, Van den Bergh, and lvarez, 2015). Teachers model good writing habits, and students reflect on their own writing processes at the conclusion of each lesson (Fidalgo et al., 2015).

(3).3.2 The overall structure of the comprehensive writing software (3.3.2).

Each of the writing curriculum's 21 lessons includes a mix of the three techniques. Each student completed a single piece of writing in two 45-minute classes throughout this subject. Between three and five pieces were devoted to each genre. There was a heavy emphasis on descriptive and instructional texts in the first few weeks of the school year's curriculum. They were chosen since they were easy for students to understand and would help them acquire an awareness of their audience, which is essential for effective communication. As the year continued, the curriculum expanded to include explanatory and argumentative pieces as well. The informative genres were mixed with narrative or creative genres in order to keep things fresh and new (stories and poems).

As a result of this limitation, we were forced to limit our genre selections for each period. A descriptive essay about a lost exotic animal, for example, could be a good fit for some news topics, but that isn't always the case for all of them. As a result, the sequence in which genres were disseminated in a given period was impacted to some part by the actual news broadcasts, and was not pre-determined.

It was decided that in order to teach each genre, students would be taught in at least three independent units: first, they were introduced to the genre (unit 1), then new procedural information (unit 2), and lastly they were encouraged to apply this knowledge to new writing problems (units 3 and 4). (unit 3). In the units 3-5

Experience. The first unit of each genre was designed to familiarise students with the genre before teaching them a specific method for that genre. For this reason a student was directed by a teacher to write something that closely matched the goal text and then asked to see how their work was accepted by readers.

Students were made aware of the communicative effect of their writings through the observation of readers, which was done in combination with the communicative approach in this phase. Student-writers were encouraged to observe readers (either their classmates or their teacher) while they attempted to identify the described object among a collection of comparable objects after writing a description of it. They'll decide that their text failed if the readers couldn't figure out what it was supposed to be pointing them toward: the communication goal was not met, and the text was a failure. Students were encouraged to study more about the genre as a consequence of this experience, which led to the development of an explicit curriculum in the genre.

Become familiar with the methods. Afterward, students were taught to a certain genre-specific writing technique. Students were expected to be able to reproduce the strategy steps they had learnt at the end of the unit. A typical 'acquiring' unit has five stages. In that order, they were: Students' prior understanding of (writing in) the genre should be reactivated, and the technique should be explained in detail and clearly. Teachers and students can both benefit from providing a mnemonic for the method, which can be practised by students and teachers alike.

The teacher recalled the experience unit and what the students had learned about writing in the genre at that period. This was followed by an explanation of and demonstration of how to use mnemonics (one or two letters for each part of a technique) to help students remember it. Abbreviation SLAK (snail) was an abbreviation for argumentative writings that stood for Situation, Let Your Perspective Be Heard, Provide Arguments, and End with an Awkward Sentence.

Two purposes were served by these mnemonic devices. Initially, they helped students remember the stages they needed to take during the writing process, making retrieval less onerous while they were actively writing. For one thing, mnemonics provided a meta-language for referring to the methods, which was helpful both during the teacher's demonstration of the strategies and during practise.

After that, the teacher acted out a part of the writing process to show the pupils how to use the approach. A script was given in the teacher's manual to help teachers with their modelling efforts. Students were reminded that the script was simply supposed to be a tool, and that the instructor should aim to mimic the 'natural' writing process as closely as possible. This includes making errors, expressing doubts and self-encouragement, and reworking ideas as you go along. These self-monitoring skills were learned through modelling rather than formal teaching.

Make the most of what you know. This was followed by a one to three-unit writing strategy unit where students practised the genre-specific writing approach they'd learned. While working in pairs or small groups under teacher supervision, kids were able to get a feel for how things worked. Students were able to practise on their own in a subsequent unit, as scaffolds were gradually eliminated.

To begin a normal practise unit, the teacher introduces students to the topic, the writing assignment, and the communicative setting. During class, the teacher asked students what form of literature was needed, for whom it was needed, and what manner would be necessary to activate current knowledge. After that, students were reminded of the many processes in the writing process, and then they finished the task. Following feedback from their peers, students were tasked with rewriting their work on a regular basis. Students were encouraged to submit peer feedback using checklists with questions, which were made available to them.

ISSN: 2583-5963

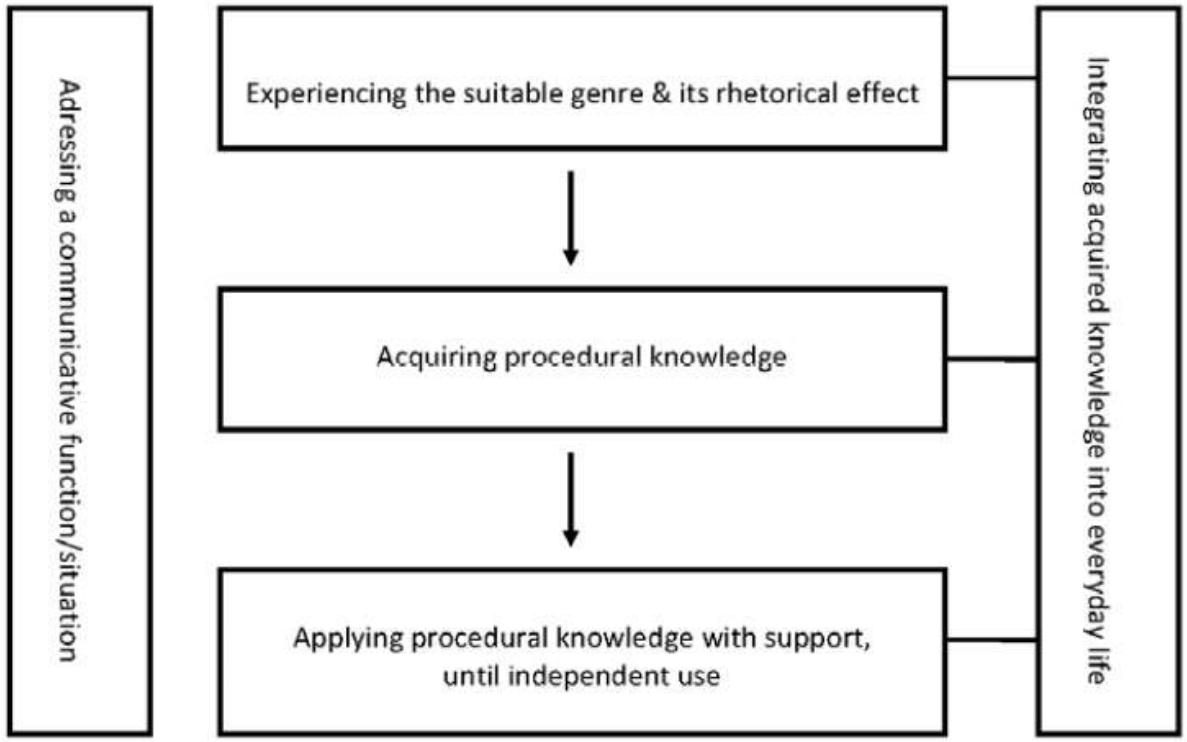

Figure 2 provides an overview of the writing program's sequential units. Invariant learning activities are shown on the left and right panels, while the middle panel serves as the focal point for each consecutive learning unit.

Figure 2 depicts the program's primary learning activities.

Students were asked to use the new knowledge and abilities they had learned as much as possible in their everyday lives (cf. Merrill, 2002). Rather than considering it a distinct stage, we saw it as an integral part of the whole process. Students were asked to reflect on their writing process and what they had learnt during the course of each lesson. Student work was published in the school newspaper or on the internet, for example, so they could show off their skills as writers in a public setting.

3.3.3 Materials to be used in conjunction with the text

Students were provided with a wide range of support materials, including classroom posters depicting various strategies, stickers for students to fill in the strategy steps, and two folders for each student: one to collect writing assignments and instructions, and the other to hold their draughts and final written texts. Additionally, students were given a list of questions to

ISSN: 2583-5963

ask while providing feedback to their peers, which included inquiries on the text's communicative features. Teachers were supplied with genre-specific rubrics for evaluating the communicative efficacy of their students' texts as part of the teacher manual.

Both a simpler (level A) and a more challenging (level B) version were produced to allow teachers to tailor their lessons to the abilities of their pupils (level B). For all their similarities in terms of subject matter and genre, there are significant differences in terms of how much information is imparted and how much time is spent on preparation for the two courses.

3.4 Program for professional growth and development

Two CED-Group writing education specialists collaborated with members of the study team to create and administer a professional development programme for writing and composition instructors. With the goal of helping teachers adopt a new writing curriculum and inspiring them to make data-driven decisions that benefit children, the program's goals were ambitious. The National Science Foundation provided funding for the project. Thus, each participating instructor identified an issue or want related to writing teaching practise, then analysed data to support them in making judgments about fixing the issue and/or improving their writing classes. The creation was then put to use by the teacher, who assessed its success or failure.

The programme comprised six four-hour group sessions in addition to individual coaching in the workplace and six four-hour group sessions. Teachers in the professional development condition were divided into two groups (n = 6 and n = 5) from September to June. They all began using the experimental writing curriculum in their classes at the beginning of the school year in August.

Between September 2013 and March 2014, a CED-Group writing education specialist served as a professional development leader for each of the five groups, which had five sessions each. Among other things, they discussed how to assess the quality of students' texts, keep track of their writing development, and adapt writing lessons within the programme, as well as the knowledge and skills teachers need for data-based inquiry and decision making (e.g., how to evaluate and adapt lessons within the programme to evaluate and adapt students' writing development).

This writing program's major concepts—communication, process, teaching writing technique, standing out from the crowd, and providing students with feedback—were all thoroughly discussed during the sessions. Teachers who took part in the research of communicative writing, for example, evaluated student writing samples in small groups. Following this discussion, the need of focusing on students' writing's ability to communicate effectively was discussed.

The Flower and Hayes model of the writing process (Flower & Hayes, 1981) was presented and investigated, as well as related to other components of the writing curriculum in order to better comprehend process writing. Several methods for revising and collaborating were also explored and exchanged (during various stages of the writing process).

How to execute your writing strategy One of the most often broached subjects during group sessions was the subject of instruction. A video of a teacher modelling a writing technique spurred instructors to consider a variety of ways they may think aloud while teaching writing to children.

Teachers also practised giving students feedback on their writing in small groups, and they viewed a video of students doing the same for one other's work. Moreover, Teachers worked together to establish a checklist for providing written feedback based on the qualities of successful and useful feedback.

For each task level (A and B), a group plan was produced that contained an analysis of the writing achievements of all students within a class and recommendations for how to effectively encourage and challenge both the poorer and the stronger writers, respectively.

Small-scale experiments were carried out by participating instructors in their classrooms between March and June 2014, each of which was based on a personal problem or want linked to writing teaching. Questions like, "How can I help my students improve their writing?" were examined by teachers. and "How can I encourage my students to go back and revise their written work?" "How can I tailor my classes to better fit the needs of individual students?" and "How can I provide useful feedback during the writing process?" are commonly asked by students in my classes. Teachers were guided in their quest for answers by a CED-Group teacher trainer with years of expertise or a member of the study team.

ISSN: 2583-5963

One or two visits to the teachers in their particular schools were made by the coaches to observe writing classes and discuss issues and answers that the teachers had. E-mail assistance was also offered, in which the teachers were asked questions, given comments, and given advice.

The teachers presented their findings from their classroom research during their sixth and final meeting. Students wrote a learner report on what they had learnt about teaching writing over the training and coaching sessions, then shared their thoughts with the group.

3.5 Measures

Table 2. Overview of Instruments used per Variable and Measurement Occasion

Variables	Pretest	Midtest	Posttest
Students' writing performance			
Writing tasks	x	x	x
Teachers' writing classroom practice			
Interview	x		x
Lesson observation	x	x	x
Questionnaire	x		x
Logs*			
Teachers' beliefs			
Questionnaires	x		x
Teachers' skills			
Logs*			
Text assessment task	x		x
Implementation			
Interview	x		x
Logs*			
Lesson observation	x	x	x

*Logs were filled in every two weeks throughout the year.

Writing assignments, interviews, class observation logs, questionnaires and a text evaluation exam were some of the tools we used to assess the dependent variables. Table 2 summarises the instruments used for each measurement occasion.

3.5.1 The writing abilities of the students

Three times, before the programme began, halfway through, and at the end, students' writing performance was evaluated. This was done three times. Given that students' writing scores vary greatly across tasks, we assessed their performance on a number of tasks in various genres because past research shows that students' writing scores change significantly between tasks (Bouwer et al., 2014; Schoonen, 2012; Wesdorp, 1974). The pupils' writing abilities were tested in eight separate activities (Table 3).

Table 3: Overview of Writing Genres per Measurement Occasion

	Measurement occasion		
Genres	Pretest	Midtest	Posttest
Narrative	1		1
Expository	2		3
Descriptive	3	1	
Argumentative		2	2

Note: Numbers in the cells refer to the order of administration.

Expository and narrative writing tasks were included in both the pre- and post-tests (Table 3). Due to the fact that descriptive writing was included in the writing curriculum from the start, we decided to administer it as a pre- and post-test. Our argumentative writing projects were also given at halfway and end-of-program because this genre was covered in the second part of the writing course

The tasks were derived from previous studies (Bouwer &Koster, 2016; Krom et al., 2004; Pullens, 2012; Schoonen& De Glopper, 1996; Zwarts et al., 1990). Students were instructed to write a brief story about something frightful (pretest) or a pleasant surprise they had experienced when given a narrative writing assignment (posttest). They had to write a letter of recommendation for a new student on how to write a good piece of writing as part of their expository assignment (pre- and posttest). During the descriptive writing task, students were instructed to describe a lost sweater or a missing cat for a lost-and-found department (pretest) (midtest). Some students were asked to submit an appeal to a company as part of an argumentative writing exercise to get them a present as part of a promotion campaign (mid- and posttest).

ISSN: 2583-5963

Helpers with specialised training completed the tasks. A average testing session lasted around an hour and fifteen minutes. Writing a descriptive text took 15 minutes (since it was a quick work), whereas explanatory, narrative, and argumentative essays took 20 to 30 minutes (all of which were longer tasks).

A perfect score of 100 was awarded to all 8025 of the student texts that were gathered and analysed for their communicative effectiveness. If a student gave a description of a lost cat, would the neighbours be able to recognise it? Is it feasible to persuade the business to provide a gift? Before reaching a final judgement, we used a method developed by Blok (1986) to evaluate the communicative efficacy of texts by comparing them to five "anchor texts," which collectively form a text quality scale. They were selected from a pool of texts that had already been evaluated. It was given a score of 100 since it was regarded to be average. For each standard deviation above or below the mean on the scale, there were four different anchor texts: two stronger and two weaker (scores 70-85-100-115-130). We used scales that were already in use for expository and argumentative papers (Bouwer &Koster, 2016; Pullens, 2012). Pullens (2012) gathered student writings from which we produced a scale for narrative texts; on the other hand, we used a sample of the present study's texts to construct a scale for descriptive texts.

The texts of the students were allocated randomly among 12 trained raters using an overlapping rater team design using a composition of roughly 50 texts each set (Van den Bergh &Eiting, 1989). With reference to the anchor texts, each text was evaluated on its communicative efficacy by three raters. Juror reliability (lambda) was found to be between.70 and.94, which was regarded adequate.

3.5.2 Teachers' writing in the classroom as part of their professional development

Teachers were asked to describe their classroom practises in terms of a range of aspects of writing instruction. Writing courses are expected to contain extra elements from all three approaches to writing teaching – communicative, process and strategy – as a result of implementing the complete writing programme We also predicted that participation in the writing programme would result in improved quality education in terms of differentiation, approach teaching, and fostering active learning, all of which were anticipated.

These indicators were studied further through the use of reminiscence interviews, lesson observations, questionnaires, and logs.

Interview. Instructors' judgments of students' texts, the substance and structure of their writing classes, and how carefully teachers observed their students' writing lessons were all included in the guideline for the interviews that we devised for the project.

A poor and a good student text were sent to us in advance of the interview so we could compare them. This interview's first section covered topics such as teacher standards for evaluating the texts' quality (e.g. communicational features, stylistic components, structural elements, content), as well as the subject matter and organisational structure of the lesson in issue. Questions such, 'Why is this text a poor text? and 'What happened in this class prior to students producing their texts?' were followed by questions like, 'Did you teach?' and 'What kind of instruction did you provide?" were asked. In order for a follow-up question to be asked, the instructor had to reply effectively to the initial set of questions they were asked. To wrap things off, we asked the teachers whether they kept track of their students' writing development and if they planned and reviewed their writing lessons.

Before and after the exam, research assistants who had completed thorough training conducted interviews with each of the 43 teachers (see 3.7 Data collection). In an average interview, it lasted around 41 minutes (standard deviation = 10). An audio cassette was used to record the interviews, and the assistants who worked with the interviewers transcribed them verbatim.

Writing strategy training, communicative writing, and the writing process were all identified in the instructors' interview transcripts, which were then tagged. On the basis of whether or not they claimed to be employing a practise, teachers were given dichotomous codes. Students were given a list of text quality criteria to use as a guide in evaluating their own work, after a discussion of text examples and a review of the text quality standards. Using a second set of eyes, a coder assessed the text quality of fifteen interviews as a whole. The reliability of the inter-rater agreement (Cohen's kappa =.88) was good.

A list of things I noticed throughout class. A competent assistant watched two writing lessons per teacher during the pre-test, and one writing lesson per teacher at the mid- and post-test, respectively, for each of the teachers (one observer per lesson). For this research, a total of

171 writing classes were observed and documented. The post-test observation data for one instructor was excluded from the analysis since the observed session was not a writing lesson. ' Students' attention spans and teachers' classroom demeanour were observed during these lessons.

Instead of referring to the time students spend not engaged in educational activities as "time spent on task," we should say "time spent engaged in educational activities" (Karweit&Slavin, 1982). On-task behaviour is a good measure of the quality of a teacher's teaching, particularly in terms of how well the time allocated for writing instruction is utilised. " N = 171 lessons comprised the observation of eight students chosen at random by a trained assistant who documented their time on task and reported to the teacher. To establish if the students were largely on task or distracted, the observer assessed each student twice (after 30 seconds) after one minute of observation. An off-task code was given to students who were not showing any interest in the course material (e.g. fidgeting or chatting). It wasn't until the assistant had seen all eight kids for a full one-minute period that the children were observed again. Each of the eight pupils in a typical session was observed five times, for a total of 80 points each lesson (8 students x 5 minutes x 2 observations per minute). Students' time spent on task was calculated for each instructor based on their participation in the observed lessons.

Writing Observation Framework (Henk and Marinak, 2003) and Dutch Inspectorate of Education observation instrument were used to evaluate instructors' classroom approaches in order to identify their efficacy in teaching students to write (Henkens, 2010). When the class was through, the observer had to complete the instrument by answering the 25 questions on it. How often did the instructor employ communicative writing, process writing and strategy training in their classroom? For instance, "Did the teacher give students the opportunity to generate ideas prior to writing?" and "Did the teacher pay attention to one or more writing strategies?" are examples of items on the checklist. Rather of asking them to complete the questionnaire in class, we had them listen to the audio recording of the session and use it as a reference to finish it once class was over.

Reliability was assessed by having an independent coder evaluate 10 audio cassettes containing recorded lessons from the instrument. Instrumentation proved to be accurate. An

inter-rater agreement of Cohen's kappa of 0.66 was found between the observers and the second rater in this study.

Questionnaire. An online survey was sent out to the instructors, which had three measures based on Van de Grift (2007): teaching learning methodologies, adapting to students' needs, and encouraging students to participate actively. Pre- and post-tests included administration of the questionnaire to the instructors. According to Van de Grift (2007), these measures can be used as indicators of good and successful teaching since they are linked to student participation and accomplishment.

Items such as "Asking students to explain which strategy they use" and "Adapting my writing lessons to students' different ability levels" (Differentiating) were included in the questionnaire. 31 students completed the questionnaire, which had 31 questions (Promoting active learning). A five-point Likert scale was used to ask instructors how often they engaged in these activities in their writing classes (1 = never, 5 = all the time). For further details about the scales' reliability (Cronbach's alpha values ranging from.80 to.87), see Appendix B. Logs. We established an online log to keep track of instructors' writing lessons throughout the year, as well as teachers' capacities to reflect on lessons and modify teachings to the context in which they are being taught.. Students' engagement, students' texts, and instructors' satisfaction with and evaluation of the writing lessons (intervention conditions) were included in the survey. Teachers' customization of the lessons to students' skills was also included (PD condition).

For the last two weeks, instructors received an email every fourteen days encouraging them to fill up an online record of the writing classes they had taught. For each teacher, there were a total of 14 logs (standard deviation = 4.3) completed.

3.5.3 Beliefs held by teachers

In this study, teachers' views toward writing and writing instruction were examined across a range of domains, including how they view the act of writing itself, how they view writing instruction, and how they view their own efficacy as a writer educator. Additionally, it was examined to see if the success of high-quality training elements may be indicative of more general, non-domain-specific effectiveness. In order to acquire data on beliefs, questionnaires were used.

ISSN: 2583-5963

Testing teachers' views on writing was made possible by the Writing Beliefs Inventory (White and Bruning, 2005), which includes two scales: Writing as transmission (6 questions) and Writing as transaction (6 items) (13 items). Teachers who adhere to transmissional theories often view writing instruction as a technique of passing along authoritative knowledge to their students. This sentence serves as an illustration: "The key to successful writing is to accurately report what experts say," says a writer. Transactional instructors see written communication as a way to actively include their own thoughts into the writing process, allowing them to develop their own texts. "Writing helps me appreciate concept complexity," states author as one example (White &Bruning, 2005). On a Likert scale of 1 to 5, educators could indicate their level of agreement or disagreement with each of the statements.

A three-scale Writing Orientation Scale (Graham et al., 2002) was used to examine teachers' ideas about writing education, which includes five questions on accurate writing, four on explicit teaching, and one on natural learning (all of which were completed by the instructors) (4 items). Formal correctness in pupils' writing is a top focus for teachers who obtain good grades for it. "Children should be encouraged to use proper spelling," is an example. "it is necessary to teach children techniques for preparing, checking, and correcting their texts," or "it is vital to teach children strategies for planning, checking, and correcting their texts." are examples of explicit instruction. When it comes to writing teaching, natural learning methods emphasise the value of non-formal methods used outside of the classroom. According to one theory, "Children eventually learn the requirements to which written texts must adhere by composing and responding to other people's texts," Respondents were assessed on a five-point Likert scale, with 1 indicating total disapproval and 5 indicating total concurrence. The questionnaire was translated into Dutch and the scales were improved by adding two additional items to each category.

Efficacy in teaching writing was assessed using the Teacher Efficacy Scale for Writing (Gibson &Dembo, 1984; Graham, Harris, Fink, & MacArthur, 2001; Troia& Maddox, 2004). Efficacy as a teacher and effectiveness as a teacher as a whole are both assessed using the Teacher Efficacy Scale, a 16-item questionnaire. Personal teaching efficacy (e.g., "When students' writing improves dramatically, it is typically because I have discovered a more

successful teaching technique") refers to a teacher's conviction in his or her own ability to teach writing. It is referred to as "generic teaching efficacy" when a teacher's ideas regarding the limitations of writing instruction caused by environmental variables such as students' home environments (e.g., "A teacher has limited impact on students' writing performance. Higher scores indicated better efficacy in the general teaching efficacy questions on a five-point Likert scale (1 being absolutely disagree, 5 being fully agree).

Based on an instrument developed by Van de Grift, we created a questionnaire to assess teachers' overall capacity to deliver high-quality instruction (2007). In Section 3.5.2, please note This tool has three scales: teaching learning techniques, differentiating, and fostering active learning. Teachers were asked to score their competency in each activity on a five-point Likert scale (1 being completely incompetent, 5 being extremely proficient).

Online, instructors had the chance to answer the belief surveys, which were sent to them. A total of 95% of those who took the pretest and 98% of those who took the posttest responded. As demonstrated in Appendix B, the scales' dependability increased from fair to good when a number of items were deleted.

3.5.4 The abilities of teachers

It was determined that teachers' ability to reflect on their teaching and change their teaching methods based on a given circumstance were evaluated. In the professional development condition, participants worked on small-scale design projects to modify the resources to their own requirements. Teachers were encouraged to personalise the instructional materials to meet the specific needs of their pupils. Our evaluation techniques and instruments, as a result, include indicators of this sort of professional attitude and behaviour. An understanding of text assessment and the ability to provide students with useful feedback on their work was an important consideration in the creation of the writing curriculum we were putting together at the time. The bimonthly teacher guides and the professional development programme emphasised a conversational approach to offering feedback. As a result, we predicted that instructors would become increasingly skilled at judging texts from a functional rather than a formal viewpoint during the course of the school year.

Teachers' capacity to reflect on and adapt their teachings to the context in which they were taught was evaluated by researchers through an assessment of the biweekly logs they kept

(see 3.5.2). A survey was conducted in which teachers were asked to list the aspects of their writing lessons with which they were most and least happy, and to explain why. In order to better understand the instructors' reactions, two professionally trained assistants classified the responses based on three aspects: perception, analysis, and adaptation (did the teacher adjust to the circumstances or the situation had changed) (did the teacher indicate that he or she had adapted the lesson). Teachers were given a score for each item in order to rate it (1 equals yes, 0 equals no). It was determined that 14 percent of the 342 completed logs (49 out of 342 total) were coded by two independent coders to establish their degree of agreement (Cohen's kappa.85), which was fairly high.

A text assessment test was used to gauge teachers' abilities to gauge the quality of their students' writing. Sixth-grade students wrote narrative and argumentative articles and sent them to us for review by instructors. Teachers used five anchor texts, each with a predefined rating, to evaluate the texts in a holistic manner. Pullens gave both the student texts and the anchor texts that were to be examined (2012). The effectiveness of the texts' communication rather than their content was emphasised on teachers. So, how did the stories hold your attention? How convincing were the arguments in the texts? The instructors used a digital environment to grade the assignments before and after the exam; the majority of the teachers completed the assignment (pretest: 80 percent ;posttest: 84 percent).

Additional evaluations were made by a jury of seven experienced raters, much like instructors did. It was clear that the jury's evaluations were reliable (pretest:.90, posttest:.91) and that the outcomes were consistent. This was followed by a comparison of the teachers' evaluations with the overall jury rating for each text (correlations). The jury's average score and the teacher's average score were found to be highly correlated, which was interpreted as a measure of proficiency in text evaluation.

3.6 Implementation

This study's fidelity measurements serve two functions. Initial steps include determining if the writing programme was administered correctly by instructors and, if so, if it had an effect on students' writing skills. The second reason is that they can explain how the study's outcomes may have been affected by differences in the execution of the programme. (O'Donnell, 2008; O'Donnell, 2008; Kretlow& Bartholomew, 2010).

To determine faithfulness, O'Donnell (2008) provided five criteria: the following There were a number of factors to consider, including how many lessons were implemented, how well the intervention components were delivered, and how much of an impact they had. Program quality (how well do teachers present the programme?) The quality of the program's response from its participants (how actively do students and teachers interact with its content?) During the time that the programme is being executed, important aspects of the intervention condition(s) are present in those circumstances, but not in the control condition.

Each of the five characteristics was measured in a variety of methods. We tallied the teachers' total number of writing lessons to determine the course's overall length. In the interview, instructors in the control condition supplied the information that led to this conclusion. We used the number of lessons taught by each teacher in the intervention conditions as a threshold when interviewing and logging the intervention teachers about the writing programme lessons they taught. Teachers in both the WP and PD conditions were evaluated on their adherence to the writing program's main principles, such as whether they taught writing strategies and models the writing process when it was recommended in the lesson manual.. We may deduce that teachers are worried about the success of their lectures if they question themselves if their lesson has achieved its aim, which is a solid sign that they care about the efficacy of their courses. We monitored students' time on task behaviour throughout writing classes in order to get a sense of how they were responding. As part of the Program differentiation, we examined whether or whether the features of writing approach teaching were absent in the control group throughout the observed courses.

Aside from interviewing teachers about their opinions of the PD programme and coaching sessions, we also gathered data on their attendance rates at professional development meetings in order to determine whether or not it was a successful implementation.

3.7 Data collection

Over the course of one academic year, three separate measurements were conducted each instructor. There were a total of four visits to each class, with a visit to each class occurring twice on each date. From September through October of that academic year through January and February of the following year, data was collected for the pre- and post-tests (posttest).

Teachers' profiles were built starting in May of the preceding school year and were finalised at the end of that year's schooling.

Both the interviews and the class observation sessions were done by a group of highly trained research assistants and the original author. They were also responsible for assigning the writing tasks. The volunteers were all college students who worked together. The vast majority of them studied Dutch language, communication, psychology, or educational sciences in college. A half-day training session was held where participants learned about the study's goals, reviewed the interview guidelines, saw and discussed video segments of an interview, practised interviewing each other, and received instructions on how to transcribe the interviews. In order to have a better grasp of the process, they watched, coded, and discussed video segments of several lessons to practise keeping track of students' time spent on task. Tutors were also given a structure to follow while grading the tasks.

During or after their lunch break, teachers who participated in the study were interviewed.

It was requested that they sign the transcript of the interview; no modifications were made to the transcript at this time

3.8 Information gathering and analysis

We obtained data from both students and teachers (based on their writing performance) (classroom practices, beliefs and skills). Information is structured in a complex hierarchical structure. Measuring events and courses within students are classified as "classes within classes" (teachers). Because each student completed a large number of writing activities throughout each measurement, writing scores are nested both within and across individuals during each data collection. Because of this, in addition to inaccuracy, there are three sources of variance: variance between students, variance within courses, and variance among writing projects (see also Koster, Bouwer, & Van den Bergh, 2017).

Nine multilevel models were used to examine the effects of the comprehensive writing curriculum and the professional development programme on student writing. When creating these models, the hierarchical nature of the data was taken into mind. To begin, we used a null model that just included an intercept and the four components of variance: mean, standard deviation, correlation, and bias (model 1). With Model 2, we were able to look at

ISSN: 2583-5963

whether the average writing scores of students varied between the three testing sessions. Modifications to model 3 included the addition of grade, while model 4 included an interaction between grade and time of measurement that allowed for grade disparities to impact changes in time of measurement.

PD and WP conditions are also included in later models because to the effect of a thorough writing software. Initially, we examined whether the average writing scores differed between the two experimental conditions (WP and PD) and the control condition (C) for the two consecutive assessment times (model 5). Using this approach, a complete writing program's effect on pupils is projected to be equal at both the mid- and posttests. Model 6 relaxed this assumption by allowing the impact to fluctuate between the mid- and posttests. Model 7 helped us investigate if the influence of the complete writing curriculum changes by grade level.

An interaction between professional development and measurement was introduced in model 8 to investigate if there was any additional impact from training. It was also evaluated if there was a difference in the PD program's effect between the mid and post test periods (model 9).

The -2 log likelihood is a measure of how likely the models are to match the data. The distinct impacts were tested for significance using a likelihood ratio test (Snijders& Bosker, 1999). To account for the fact that the difference in -2 loglikelihood across the layered models is 2-distributed, this was done (Snijders& Bosker, 1999).

As an additional model, we examined how students' writing performance was affected by the number of writing programme lessons taught and the number of control lessons taught. We predicted that students' writing performance would improve as the number of lessons in the writing programme increased, but that the number of lessons in the control group would have minimal effect.

A multilevel analytic method was also used to examine data at the teacher level. We utilised a multilevel model to evaluate the effects of the writing programme and the extra effects of the professional development programme, which were nested inside instructors for each classroom practise, teacher belief, and competence.

ISSN: 2583-5963

4. Results

4.1 Implementation

We did not require the instructors to give a certain number of writing programme lessons in the intervention situations. Teaching as many courses as possible was encouraged, and teachers were allowed to modify the writing curriculum in accordance with the needs of their local area.

There were on average eleven units of two lessons (standard deviation = three) taught by intervention instructors, totaling twenty-two lessons. This is about half of what we gave away. T (21) = 3.43, p.05. On average, instructors in the PD condition taught 33% more lessons than teachers in the WP condition (M = 20, SD = 7) (M = 26, SD = 3) in the PD condition. A total of 24 writing lessons were reported by the instructors in the control condition throughout the current study (mean standard deviation = 14).

A midtest observation found that seventy-five percent of interventionists taught a certain writing method as advised in the lesson plan; at the posttest, ninety-six percent of those same instructors were found to be teaching the same strategy. 73% of instructors in the intervention circumstances were seen during the observation period modelling the writing process in accordance with the lesson manual. A new approach was typically presented in the context of a modelling lesson. Because all methods were presented in the second unit of each genre, modelling was discouraged at the conclusion of the year (see section 3.3.2). As a result, the posttest's implementation report excludes it from consideration.

Most instructors (91%) reported verifying whether their lesson had accomplished its purpose, and teachers in the intervention conditions did so substantially more often at the posttest than teachers in the control condition, F2 = 4,186 p =.022 (WP: M=1.00, SD = 0; PD: M=1.00, SD = 0; C: M=.75, SD =.45). In addition, we found that 91% of instructors said they checked to see if their

Their interest for quality and efficacy of lectures was evident by them constantly taking the time to evaluate whether or not their presentation was effective. For example, students spent 92% of their time on task in intervention circumstances at the midterm and 88% in the posttest, indicating that they were sensitive to the comprehensive writing programme.

ISSN: 2583-5963

Teachers in the intervention conditions were found to be substantially more likely than those in the control group to be seen teaching writing skills, F (2, 82) = 6,275, p =.003 (WP: M =.59, SD =.50; PD: M =.68, SD =.48; C: M =.26, SD =.45) when it comes to programme differentiation

Finally, the PD programme was regarded to be a success after its execution. Five of the six sessions were attended by teachers, with a standard deviation of.94 (range: three to six). Everyone attended the first meeting (kick-off). Professional development programmes and one-on-one coaching were evaluated by instructors on a 5-point scale (1: very dissatisfied, 5: very satisfied). It was shown that on average, participants were satisfied with both the PD programme (M = 4.6) and the coaching (M = 3.9) they received.

4.2 Effects on pupils' ability to write in the classroom

To assess whether or not the WP plus PD condition was more successful than normal writing instruction and whether or not the professional development programme (PD condition) had an extra impact, nine multilevel models were investigated. A likelihood ratio test was used to determine which model was the most appropriate. Model fit and comparisons are depicted in Table 4.

Table 4 shows that student writing performance fluctuated between the pretest, midtest, and posttest for model 2, showing that model 2 outperformed model 1. The concept was further strengthened by the inclusion of a grade (model 3 over model 1).

2) The scores vary from grade to grade, as one might anticipate. Using model 4 and model 3, an interaction between grade and measurement occasion did not enhance the model fit, showing that the disparities across measurement occasions were not different among grades in this study.

ISSN: 2583-5963

Table 4: Fit of Multilevel Models of Students' Writing Performance. Factors: Measurement Occasion, Grade, Writing Program and Professional Development Program

			Comparison			
Model	Nparameters	-2 LL	Models	ΔX^2	Δdf	p
1: null	5	53470.26				
2: + MO	7	53440.87	2 vs 1	29.39	2	< .001
3: + Grade	9	53357.88	3 vs 2	82.99	2	< .001
4: + Grade*MO	13	53350.50	4 vs 3	7.38	4	.290
5: M3 + WP*MO (2&3)	10	53347.04	5 vs 3	10.84	1	< .001
6: + WP*MO (3)	11	53346.95	6 vs 5	.09	1	.760
7: M5 + WP*Grade	12	53343.70	7 vs 5	3.34	2	.190
8: M5 + PD* MO (2&3)	11	53343.83	8 vs 5	3.21	1	.070
9: + PD* MO (3)	12	53343.81	9 vs 5	3.23	2	.200

Note: MO = measurement occasion; M3 = model 3; M5 = model 5; WP = writing program; PD = professional development program

Researchers found that introducing an interaction between the writing software's use (in both WP and PD circumstances) and the measurement occasion significantly improved the best-fitting model they had so far created (model 5 versus model 3). A comprehensive writing programme had a positive effect on student writing performance at both the midpoint and the conclusion of the trial, compared to students who received regular writing instruction. the effect was indistinguishable between the two measurements (model 6 versus model 5). As with model 5, model 7 did not benefit from the addition of an interaction between the writing programme and grade, demonstrating that the program's impact on students in grades 4, 5, and 6 is the same.

The PD programme had no negative consequences, as far as we could see. Interactions between PD condition and measurement occasion were not statistically significant in our best-fitting model so far (model 8 against model 5), even when we differentiate between the PD program's mid- and posttest impacts (model 9 versus model 5). Rather of presenting projected combined outcomes for WP and PD, we'll instead provide you estimates for all three intervention conditions taken together.

Overall, model 5 has the best accuracy. Student writing performance may be estimated for each measuring occasion and for different grades using this model. It also assesses the overall

ISSN: 2583-5963

impact of a complete writing curriculum on student performance. There are average writing scores and variations on the following page based on model 5.

Table 5. Students' Average Writing Scores and Variances Estimated under Model 5 per Measurement Occasion (SE: Standard Error)

	Pretest		Midtest		Posttest	
Factors	*β*	*SE*	*β*	*SE*	*β*	*SE*
Fixed effects						
Control condition, Grade 5	91.29	.96	87.91	1.18	92.19	1.13
Δ Grade 4	-7.65	1.07	-7.65	1.07	-7.65	1.07
Δ Grade 6	6.75	1.18	6.75	1.18	6.75	1.18
Δ Writing program			4.10	1.22	4.10	1.22
Variance components						
S^2 (tasks)	29.39	3.14				
S^2 (students)	72.35	4.17				
S^2 (classes)	9.23	3.81				
S^2 (residual)	126.05	2.43				

Writing scores for fifth-grade students were 91.29 points on the control condition's pretest (Table 5). While fourth-graders scored 7.65 points worse on text quality than fifth-graders did, sixth-graders scored 6.75 points higher on writing quality than their fifth-grade counterparts had on average. When students in Grade 5 in the control condition saw a decline in their average writing score from 88.91 to 87.91 because of the new set of tasks utilised at measurement occasion 2, it is likely that the influence of measurement occasion (Model 2) is focused at the midtest. There was no statistical significance in determining that the influence of grade changes with time since the interaction between grade and measurement occasion was found to be insignificant.

Comprehensive writing programme had the most substantial impact, with a score of 4.10 (standard error = 1.22). There was a 92.01 mean midtest writing score (87.99 + 4.10), and a 96.29 mean posttest writing score (92.19 + 4.10) for students in the intervention group. It takes the writing programme about half as long to have an impact as a grade does, or around six months in total.

Teachers in the intervention and control conditions were found to differ considerably in the number of writing lessons they were teaching (see section 4.1 Implementation). When examining whether the success of a comprehensive writing programme depends on the total number of lessons taught, we updated Model 5 to add fixed effects for the total number of lessons given under both experimental and control conditions. As assessed by 2 = 8.61; df = 2; p =.01, the model fit improved significantly. Writing lessons had no influence on students' texts in the control condition (=.02; SE =.14), but each unit of the comprehensive writing programme taught boosted students' average writing score by.71 points (SE =.28), which is nearly one tenth of a grade. As a result, each additional lesson presented enhances the total impact of the writing programme.

For example, a total of 15% difference in tasks, 7% difference in pupils (within the same school), and 70% difference in teachers could be explained by the null and final model estimates. As a result, while most of the variation may be attributed to the teacher, virtually all of the fluctuation among students is still a mystery. Although this isn't a surprise, given the model's lack of knowledge on the pupils' characteristics, it isn't.

A complete writing curriculum proved to be more successful in improving students' ability to write, according to the findings of this study In comparison to the control condition, where the number of lessons given had no effect, students' writing proficiency improved the more writing programmes were taught. A second effect of the professional development programme on students' writing skills could not be demonstrated in this study.

Teachers' educational methods may suffer as a result.

We looked at how the complete writing programme affected teachers' classroom practises in various domains (communicative writing, process writing, and writing strategy instruction), as well as the features of high-quality writing instruction (teaching learning strategies, differentiating, and promoting active learning). It was also found that the amount of time students spent involved in instructional activities or learning tasks was correlated with the amount of time they spent engaged in such activities.

Each classroom practise was given its own multilevel model, with observations built on top of observations made by the instructors themselves. After investigating, it became clear that the PD programme had not made a significant impact on the student writers' performance

ISSN: 2583-5963

models. Instead of publishing the results from WP and PD alone, we integrate the information. Writing strategies, such as communicative writing and process writing, were included in the sessions that instructors conducted at the start and end of semester, as seen in Table 6.

Table 6: Percentage of Teachers who used Communicative Writing, Process Writing and Writing Strategy Instruction per Condition at Pretest and Posttest

		Intervention		Control	
Features of three approaches of teaching writing	Source	Pretest %	Posttest %	Pretest %	Posttest %
Communicative writing					
Goal directedness is mentioned while discussing text quality[a]	Interviews		89	25	75
Feedback on goal directedness	Observations	33	17	38	23
Audience awareness is mentioned while discussing text quality	Interviews	15	33	19	19
Feedback on audience awareness	Observations	37	17	38	15
Students' texts are read aloud	Interviews	89	89	87	63
Students' texts are published	Interviews	69	76	79	64
awareness					
Students' texts are read aloud	Interviews	89	89	87	63
Students' texts are published	Interviews	69	76	79	64
Process writing					
Generating ideas	Observations	85	70	87	73
Organizing ideas	Observations	63	70	56	47
Revising texts	Interviews	58	59	36	31
Writing strategy instruction					
Teaching writing strategies[b c]	Observations	30	85	50	20
Modeling the writing process	Observations	44	41	50	27

[a]: significant effect of measurement occasion
[b]: significant condition effect
[c]: significant interaction effect of condition x measurement occasion

Writing that has the goal of conveying information to the reader. less than half of instructors mentioned goal-directedness as a trait in their pre-test interview (Table 6). This year's emphasis on goal-directedness has grown greatly in both relevance and impact. One-fifth of the professors emphasised the significance of students' comprehension of their audience in their lessons. Only a few professors were found to provide formative feedback to students on their texts' goal-directedness and audience awareness. According to the instructors who replied to the study, almost 80 percent of the students' texts were read aloud in the classroom. Additionally, student writing was published in some form in the vast majority of schools.

A meaningful influence of the comprehensive writing programme on communicative writing practises could not be proved since no statistically significant interactions (condition x measurement occasion) were found. Affirmations (see Appendix C for statistics).

Writing takes time and effort. The vast majority of educators emphasised the importance of brainstorming with students before they began writing projects (Table 6). Most teachers taught their students to organise their thoughts before writing as a prewriting exercise. Researchers found that a small majority of instructors in the intervention conditions and a third of teachers in the control conditions used the strategy of having students revise their written work. Writing activities were not affected by the use of a complete writing software (see Appendix C).

Writing a strategy is taught in this course While instructors in the intervention groups taught writing approaches more frequently at posttest, the percentage of teachers who taught writing strategies less frequently declined in the control condition (Table 6). F (1, 81) = 14.05 and a p-value of.0001 indicated that this interaction effect was statistically significant. This interaction between condition and measurement occasion is statistically significant even when Bonferroni corrections are taken into account (against a critical p-value of .005). Teachers were seen teaching their pupils about the writing process. Modeling revealed no changes that were statistically significant.

The best training available. Means and standard deviations for three aspects of high-quality education may be found on this page.

During the pre-test, on average, instructors reported that they used learning approaches in their classes. When comparing pre- and post-intervention results, we found that the mean

ISSN: 2583-5963

score rose the most in the posttest. On the other hand, there was no statistically significant interaction between the conditions and the measurement event. The instructors who responded to the survey also said that they differentiated their teachings at times. Students were also encouraged to participate in active learning, according to teachers. The mean score went up significantly on the post-test.

For high-quality training, no significant interactions between intervention conditions and testing dates were found (see Appendix C). The writing curriculum as a whole had no statistically significant impact on these traits.

Engagement. Table 8 shows the averages and standard deviations of students' work time. More than 90 percent of pupils spent time on task each day during the school year. Findings reveal that intervention had no influence on students' participation in writing classes (F (2, 80) = 3.04; p =.05.

It is safe to say that the entire writing programme had a major positive impact on the quantity of writing approaches instructors taught in their classrooms. But there was no substantial impact on communicative writing, processes, teaching learning strategies and differentiating. Moreover the degree of student involvement was not significantly affected.

Table 7: Aspects of High-Quality Instruction per Condition at Pretest and Posttest (1: never; 5: always)

Types of High Quality Instruction	Intervention				Control			
	Pretest		Posttest		Pretest		Posttest	
	M	SD	M	SD	M	SD	M	SD
Teaching learning strategies [a b]	3.39	.65	3.82	.38	3.18	.65	3.41	.71
Differentiating	3.03	.59	3.21	.56	3.14	.84	3.10	.77
Promoting active learning [a b]	3.80	.46	4.03	.29	3.62	.41	3.72	.41

[a]: significant effect of measurement occasion

[b]: significant condition effect

ISSN: 2583-5963

Table 8: Students' Time on Task per Condition per Measurement Occasion

Measurement Occasions	Intervention		Control	
	M %	SD	M %	SD
Pretest	89	10	85	12
Midtest	92	7	94	5
Posttest	88	9	94	6

4.4 Effects on teachers' beliefs

Table 9: Teachers' Beliefs per Condition at Pretest and Posttest

	Intervention				Control			
	Pretest		Posttest		Pretest		Posttest	
	M	SD	M	SD	M	SD	M	SD
Writing beliefs								
Writing as transmission	2.30	.50	2.15	.52	2.19	.57	2.27	.73
Writing as transaction	3.77	.33	3.76	.27	3.59	.52	3.67	.52
Writing instruction beliefs								
Correct writing	2.90	.60	2.73	.57	2.91	.53	3.02	.51
Explicit instruction	4.18	.35	4.19	.39	4.16	.38	4.28	.45
Natural learning	4.19	.41	4.42	.42	4.13	.36	4.13	.33
Efficacy beliefs								
Personal teaching efficacy	3.43	.39	3.60	.39	3.47	.39	3.51	.46
General teaching efficacy	3.39	.45	3.34	.52	3.52	.66	3.55	.48

Efficacy in teaching learning strategies[abc]	3.01	.71	3.70	.52	2.83	.65	3.10	.79
Efficacy in differentiating	2.81	.62	3.11	.58	2.86	.80	2.89	.87
Efficacy in promoting active learning[a]	3.49	.52	3.89	.26	3.41	.62	3.66	.60

Writing (instruction) beliefs scales: 1: totally disagree, 5: totally agree
Personal and General teaching efficacy: 1: totally disagree, 5: totally agree
Efficacy scales: 1: not good at all, 5: very good
[a]: significant effect of measurement occasion
[b]: significant condition effect
[c]: significant interaction effect of condition x measurement occasion

We examined the influence of the comprehensive writing curriculum on eleven different teacher beliefs (see Table 9). A unique multi-level model was developed to represent each instructor's unique set of beliefs and values. Because the PD programme had only a little impact on the models, the results from all of the intervention conditions are summarised together in this report.

There are averages and standard deviations for the teachers' beliefs in Table 9. In general, teachers' transmissional beliefs were low, but their transactional beliefs were on the whole much higher. However, teachers did place a high value on clear instruction and unstructured learning opportunities, even if they did not agree on the necessity of effective writing. Throughout the year, their confidence in their abilities to teach writing strengthened. At the conclusion of the year, teachers felt more confident in their capacity to support active learning, believing that they were the best at it. According to the average efficacy in differentiating ratings, teachers tend to have some doubts about their ability to discriminate throughout writing courses.

Interaction between condition and measuring occasion ($F(1, 42) = 4.45$; $p = .04$) was found to have a significant effect on instructional learning techniques. Teaching learning skills was more successful for instructors in the intervention group than for teachers in the control group, according to post-test results Because of the writing programme, teachers were able to more effectively teach learning processes to students. There was no statistically significant interaction between condition and measurement occasion for either the writing beliefs or the writing instruction beliefs (see Appendix C).

ISSN: 2583-5963

A statistically significant favourable impact on instructors' efficacy in teaching learning techniques was found, but not on other efficacy beliefs to teach writing, or on any other attitudes regarding the practise of pedagogy. A careful approach is necessary because of the numerous comparisons that were made. Instructor effectiveness in teaching learning strategies is not significantly affected by multiple comparisons (Bonferroni correction) when multiple comparisons are taken into consideration.

4.5 Implications for teachers' abilities

Table 10: Teachers' Skills per Condition per Measurement Occasion

Intervention						
Teacher skills	Pretest		Midtest		Posttest	
	M	SD	M	SD	M	*SD*
Text assessment	.65	.11			.65	.15
Reflection on lessons	.80	.21	.81	.20	.95	.14
Adaptation of lessons to context	.10	.19	.11	.18	.10	.31
Control						
Text assessment	.61	.10			.68	.11
Reflection on lessons	.79	.22	.82	.21	.80	.26
Adaptation of lessons to context	.08	.19	.01	.05	.08	.29

Text assessment scale: 0: no correlation with the jury - 1: perfect correlation;
Reflection on lessons: 0: never - 1: always
Adaptation of lessons to context: 0: never - 1: always

Multilevel models for each skill were built independently. However, because there was no significant impact of this programme, we will provide data from all three intervention conditions together. Contribution made by the PD Program Figures in Table 10 depict the means and standard deviations of many aspects of a teacher's abilities.

An average correlation coefficient of 0.65 related instructors' text evaluation skills to the jury, and this association remained constant across all situations and occasions of measurement. The monitoring and analysis of writing sessions by teachers was frequent under all conditions, but instructors seldom adapted their writing lessons to the unique setting in which they were taught.

We found no statistically significant interaction effects between the professional development condition and the testing occasion for teacher competencies. For this reason there may be no statistically meaningful impact on instructors' abilities from the professional development programme.

It was determined that a complete writing programme, along with professional development for teachers, had the most positive impact on students' performance, teachers' classroom practises, and teachers' views and abilities in the area of upper-grades writing teaching. It was our intention to create and evaluate a long-term, comprehensive writing programme that would enhance both the teaching of writing and the writing skills of students by combining previously proven strategies for strategy instruction, such as communicative and process-oriented approaches, and then evaluating the results (e.g., Koster et al., 2015; Graham &Perin, 2007; Graham et al., 2012). There were several reasons for doing this study in a typical classroom, including the goal of improving students' writing skills and modifying teachers' instructional practises. It was up to instructors who participated to choose how quickly and intensely they absorbed the available materials and to tailor the curriculum to their requirements and local context. The complete writing program's implementation metrics indicated that on average, teachers taught 22 lessons, or nearly half of what the programme offered. The majority of teachers committed to the program's fundamental ideas.

Although the complete writing programme was shown to be superior to the more traditional methods of writing teaching (ES =.27), the number of lessons taught had an effect on the program's efficacy. According to Bouwer et al. (2016), who did a research under same conditions and in the same location, these findings are comparable to theirs (ES = 0.32). There were substantially larger average impact sizes of 1.02 (Graham et al., 2012) and.96 for writing skill instruction in elementary school, according to meta-analyses of writing intervention studies (Graham and colleagues, 2013). (Koster and colleagues, 2015). Different impact sizes point to two problems in estimating impact sizes.

To begin with, the topic of how to measure writing performance must be addressed. For each assessment occasion, we followed the advice of Bouwer et al. (2016) and administered multiple writing tasks to each student so that we could more accurately measure their unique writing abilities. Writing-related variation is included into the explained variance, which

implies that the error component is reduced as a result of this development. In contrast, the bulk of writing intervention studies simply examined students' abilities to complete a particular type of writing assignment. As a result of our work modelling the many components of variation, we have been able to quantify the role that writing assignments play in explaining variance. As a result, we simulate what the impact size would have been if we had only one task each time we measured students' writing performance: the effect size would have doubled if we did not account for the variation caused by tasks in the first place. Since this measurement issue allows for a more exact calculation of the error components, it affects the effect magnitude. As a result, comparing research in terms of impact magnitude without taking into account the measurement issue is difficult.

In addition, the comparison of impact sizes does not take into account the objectives and conditions of the study. Many intervention research on writing strategy training have been included in meta-analyses, the bulk of which were classified as studies on self-regulated strategy development (SSD) (SRSD). Learners are only finished with training when they are able to successfully implement the method they have been taught (Harris & Graham, 2009). On the other hand, time restraints in the classroom have limited the scope of the current research project. Writing skills were taught in regular classes, with teachers allowed to decide how many sessions they wanted to teach each week. In line with our goals, which were to improve writing skills and writing practises in a realistic setting, we were able to do just that. This leads to a reduced effect and higher variation in implementation in uncontrolled studies, but the results are still typical of what can be accomplished in regular classrooms.

One of the most important goals of the intervention was to affect the behaviour of teachers in the classroom. ' A combination of communicative, process, and strategy education were all incorporated into the curriculum for the writing department at the university. Teachers and students both grew in their ability to use writing method strategies after using this curriculum, according to our findings. On the other hand, we found that using the writing programme had no significant effect on either communication or process writing. We also didn't find a correlation between student engagement, instructor teaching methods, differentiation, or active learning strategies, among other factors, on test scores. During the pretest, students spent a lot of time on task and teachers promoted a lot of active learning, thus it was tough to

improve on these factors. If instructors who introduced a complete writing programme did not differentiate considerably more frequently than those who offered ordinary writing instruction, this might be the reason for the results seen. One of the most challenging aspects of teaching is learning to differentiate between students (Van de Grift, 2014; Kyriakides, Creemers, & Antoniou, 2009). While implementing a new curriculum, most teachers will find it difficult to differentiate their teaching.

Due to the fact that the writing programme we tested was so complete, we weren't able to pinpoint which aspects contributed the most to its efficacy. A considerable increase in instructors' writing strategy practise and no significant changes in other classroom practises indicate that writing strategy training may have had a role in students' better writing performance following the adoption of the programme. 2 We found a statistically significant correlation between instructors' writing approach practise and students' writing performance2 (r =.38, p.05) at the posttest. Many research have shown that writing method instruction may be effective in the classroom (e.g. Graham &Perin, 2007; Graham et al., 2012; Koster et al., 2015).

Teacher effectiveness was significantly higher at the posttest for teachers who used the complete writing programme than at the pretest, similar with findings from a prior study. Researchers have observed that teachers' beliefs about literacy instruction are linked to the classroom practises they engage in, and this is supported by teachers' strategy-practice and effectiveness beliefs (e.g., Gaitas& Alves Martins, 2015; Lipson, Mosenthal, Daniels, & Woodside-Jiron, 2000; Troia, Lin, Cohen, & Monroe, 2011).

We were surprised to see that the professional development programme had no direct impact on the outcomes we were looking for. In spite of this, there was no reason to infer that the length or intensity of the professional development programme had not been enough. There were at least 20 hours of contact in our programme to meet Desimone's recommendation for professional development activities based on previous studies. There were also no indications that the overall quality of the programme was substandard. According to Section 4.1, the vast majority of instructors claimed that they learned a lot from the professional development workshops.

ISSN: 2583-5963

Our inability to identify any extra effect of a supplemental professional development programme on the outcome measures may be due to the small number of participants in this trial, which had just 11 instructors in this condition. Although the PD programme had a high capacity to identify major impacts at the student level, it is probable that this limited the ability to detect substantial effects. PD has an indirect effect on the human body, though. As a result of participating in the professional development programme, teachers were able to increase the number of writing programme classes they were able to provide by a significant amount. PD participants taught an additional three units of instruction on average, a gain of 29%, and we identified an effect of.71 points per unit taught, or about one tenth of an influence on grade. This impact might have been brought on by the PD training itself: There may have had an easier time implementing the lessons in the PD condition compared to the WP condition since they had received more guidance on how to do so (kick-off session, teacher manual). Another possibility is that the teachers in question are more committed to their charges. Teachers that take part in professional development programmes have been shown to be more devoted to innovation, according to Desimone (2009; several research back this up). Teachers may have felt more committed to offering additional writing classes as a consequence of their involvement with trainers, researchers, and other educators during their time in professional development. Furthermore, the fact that six instructors originally assigned to the PD condition requested to be changed to the WP condition may be suggestive of the stronger devotion displayed by teachers in the PD condition.

5.1 Strengths

In our opinion, this study has four key benefits. First and foremost, we came up with a long-term, environmentally friendly solution. Every two weeks, the designers of the online reading comprehension tool put the writing lessons into the programme, providing them the opportunity to continually enhance their appearance and content. Teachers can also take advantage of a professional development programme spin-off in addition to the classes offered. So that instructors in Holland can still benefit from the writing curriculum and professional development programme established as part of this project (albeit in a more condensed form).

ISSN: 2583-5963

It was also unsuccessfully attempted to analyse the usefulness of a writing curriculum and its accompanying professional growth, but we were unsuccessful in this endeavour. The effectiveness of a writing programme (e.g., Bouwer and colleagues, 2016) or the success of a professional development programme related to a writing strategy intervention was the focus of other research on writing strategy interventions (e.g., Bouwer et al., 2016). Examples include Festas and Oliveira; Harris; Lane; Graham and Adkins; Koster et al. (2017; Festas and Oliveira 2015).

In addition, Bouwer et al. point out that the findings may be generalised, which is a strength (2016). Students' writing performance was assessed using a variety of various genres of writing assignments, and the effect sizes obtained might be used to a wide range of future classes, students, and writing projects. As a result, more accurate estimations of the extent of the effect are possible.

Studying the influence of an intervention on students' writing, classroom practises and teachers' views and competence in a fourth area was the focus of this study The only element considered in earlier strategy intervention studies was the impact on students' writing performance. For the reasons stated above, it is important to investigate the effects of an intervention on teachers' beliefs, skills, as well as their classroom practises on students' writing performance. (e.g., Rietdijk et al. in press; Gaitas& Alves Martins, 2015; Lipson et al., 2000; Lipson, Mosenthal et al., 2000; Troia, Lin, Cohen; and Monroe, 2011).

5.2 Research in the future

It's crucial to discover what helped students learn to enhance their writing more than they would have learned in control courses once we know that each extra lesson of the comprehensive writing programme helped contribute to the program's efficacy. It would be good to do more in-depth studies on the processes and outcomes associated with learning and the learning process itself. A lot is known about writing, but very little is known about how to learn to write. In addition to giving context, other output measurements may also be valuable. We now know that pupils in the experimental condition learnt to write better texts than those in the control condition. Additionally, we know that teachers re-taught children how to write more frequently than they had previously. Finding out what students know and how they

apply the strategies they know might have provided helpful information regarding the study's outcomes.

Professional development and instructional materials have no influence on classroom practise except for extending class time. In the future, researchers might investigate the influence of the professional development programme on teachers' classroom practises in their various subject areas. Study participants' writing abilities were examined before and after the study to see if any instructional components for communicative, process, and strategic writing education existed. Teaching effectiveness is measured by the frequency with which certain instructional practises are used (Kyriakides et al., 2009). Kyriakides et al. (2009) stress the need of analysing both the amount and quality of instructional activities when determining educational effectiveness in their dynamic model of educational efficiency. However, the number of times an activity is done does not account for the fact that the method in which it works may change from student to student (Kyriakides et al., 2009). It's possible that in both circumstances, we saw the same amount of instructional behaviours, but the PD condition may have been better integrated and organised, as demonstrated in this study.

A year later, the present study examined the effects of the intervention. Teachers who utilise writing software for a longer period of time should be studied in future studies. It is expected that the second year of implementation of a complete writing programme will be more successful since teachers will have a better understanding of its structure and concepts, and it is anticipated that they will have honed their abilities in the first year (e.g., modelling of writing strategies, differentiating). They may also be able to give more lessons in less time because of their reduced preparation time. It's also possible that the programme loses its novelty in the second year, which might lead to a decrease in the amount of time and effort put into lesson preparation. To some extent, we may anticipate kids to be more comfortable with the writing programme as they go through grade levels because they have had more practise, but we can also expect them to be less motivated since they are no longer in an environment that requires them to put out their best effort.

5.3 Conclusions

As a result of a well-rounded writing curriculum that includes communicative writing, the writing process, and teaching methods, students in Dutch primary schools in grades 4–6

ISSN: 2583-5963

showed better writing skills, while also seeing an uptick in their instructors' use of teaching tactics. It was found that as the number of classes increased, so did the improvement in writing abilities among the students who took part.

Supplemental professional development did not benefit student writing or classroom practises, but instructors in the PD condition did deliver much more writing programme lessons than teachers in the WP condition. Teachers in the PD condition. To put it another way, the professional development programme had an indirect impact on student writing.

Notes

1. “A combination of grades is quite common in Dutch elementary schools. These combination classes are usually formed because of the small number of students per grade, or for pedagogical reasons.”

2. “We calculated a residual score per teacher, i.e. the extent to which a teacher deviated from the mean.”

References

- Aarnoutse, C., &Kapinga, T. (2006). BegrijpendLezen 345678 [Reading Comprehension in grades 1 – 6]. Ridderkerk: 678 OnderwijsAdvisering.
- Basturkmen, H. (2012). Review of research into the correspondence between language teachers' stated beliefs and practices. System, 40, 282-295. doi:10.1016/j.system.2012.05.001
- Blok, H. (1986). Essay rating by the comparison method. TijdschriftvoorOnderwijsresearch, 11(4),169–176.
- Bochardt, I. (1984). Het schrijfproces: Cognitief-psychologischonderzoek van Flower and Hayes. [The writing process; Cognitive-psychological research of Flower and Hayes.] Tijdschriftvoortaalbeheersing, 6(1), 23-42.
- Bonset, H., &Hoogeveen, M. (2007). Schrijven in het basisonderwijs: eeninventarisatie van empirischonderzoek in het perspectief van leerplanontwikkeling. [Writing in primary education: A review of empirical research in the perspective of curriculum development]. Enschede: SLO.
- Borg, S. (2009). Introducing language teacher cognition. Retrieved from http://www.education.leeds.ac.uk/assets/files/staff/borg/Introducing-language-teacher-cogni– tion.pdf
- Bouwer, R., Béguin, A., Sanders, T., & Van den Bergh, H. (2014). Effect of genre on the generalizability of writing scores. Language Testing, 32(1), 83-100. doi: 10.1177/0265532214 542994
- Bouwer, R., &Koster, M. (2016). Bringing writing research into the classroom: The effectiveness of Tekster, a newly developed writing program for elementary students. (Doctoral dissertation). Utrecht: Universiteit van Utrecht.
- Braet, A. (1979). Taaldaden: Eenleergangschriftelijketaalbeheersing. [Speech acts: A curriculum on writing and reading]. Groningen: Wolters-Noordhoff.
- Brindle, M., Graham, S., Harris, K. R., & Hebert, M. (2016). Third and fourth grade teachers'classroom practices in writing: A national survey. Reading and Writing, 29, 929-954. doi:10.1007/s11145-015-9604-x

- Desimone, L. M. (2009). Improving Impact Studies of Teachers' Professional Development: Toward Better Conceptualizations and Measures. Educational Researcher, 38(3), 181–199. doi:10.3102/0013189X08331140
- Drop, W., & De Vries, J. (1976). Ter informatie: Leergangsamenvattenenschrijven van zakelijketeksten. [For your information. How to summarize and write informative texts.] Groningen: Wolters-Noordhoff.
- Dusenbury, L., Brannigan, R., Falco, M., & Hansen, W. B. (2003). A review of research on fidelity of implementation: Implications for drug abuse prevention in school settings. Health Education Research, 18(2), 237 – 256. doi:10.1093.her.18.2.237
- Evers-Vermeul, J., & Van den Bergh, H. (2009). Schrijfvoor de lezer: Over effecten van lezersgericht (her)schrijven op de kwaliteit van instructieveteksten. [Write for the reader: On the effects of reader oriented (re)writing on the quality of instructive texts]. Levende Talen Tijdschrift, 10, 14-23.
- Expert Group Learning Trajectories (2009). Referentiekadertaalenrekenen: De referentieniveaus. [Reference framework language and arithmetic: The referential levels]. Enschede: Ministerie van OCW.
- Festas, I., Oliveira, A. L., Rebelo, J. A., Damião, M. H., Harris, K., & Graham, S. (2015). Professional development in Self-Regulated Strategy Development: Effects on the writing performance of eighth grade Portuguese students. Contemporary Educational Psychology, 40, 17-27. doi: 10.1016/j.cedpsych.2014.05.004
- Fidalgo, R., Torrance, M., Rijlaarsdam, G., Van den Bergh, H., & Álvarez, M. L. (2015). Strategy- focused writing instruction: Just observing and reflecting on a model benefits 6th grade students. Contemporary Educational Psychology, 41, 37-50.doi:10.1016/j.cedpsych.2014.11.004.
- Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. College Composition and Communication, 32, 365-387. doi:10.2307/356600.
- Franssen, H. M. B., &Aarnoutse, A. (2003). Schrijfonderwijs in de praktijk. [Writing education in practice]. Pedagogiek, 23(3), 185-198.

- Gaitas, S., & Alves Martins, M. (2015). Relationships between primary teachers' beliefs and their practices in relation to writing instruction. Research Papers in Education, 30(4), 492-505. doi:10.1080/ 02671522.2014.908406
- Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. American Educational Research Journal, 38(4), 915-945. doi: 10.3102/00028312038004915
- Gibson, S., &Dembo, M. (1984). Teacher efficacy: A construct validation. Journal of Educational Psychology, 76, 569–582. doi:10.1037/0022-0663.76.4.569
- Graham, S., Harris, K.R., Fink, B., & MacArthur, C.A. (2001). Teacher Efficacy in Writing: A Construct Validation With Primary Grade Teachers. Scientific Studies of Reading, 5(2), 177- 202, doi: 10.1207/S1532799Xssr0502_3
- Graham, S., Harris, K. R., MacArthur, C.A., & Fink, B. (2002). Primary grade teachers' theoretical orientations concerning writing instruction: Construct validation and a nationwide survey. Contemporary Educational Psychology, 27, 147-166. doi:10.1006/ceps.2001.1085
- Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. Journal of Educational Psychology, 104, 879-896. doi: 10.1037/a0029185
- Graham, S., &Perin, D. (2007). A meta-analysis of writing instruction for adolescent students.Journal of Educational Psychology, 99, 445-476. doi:10.1037/0022-0663.99.3.445
- Graham, S., &Sandmel, K. (2011). The process writing approach: A meta-analysis. The Journal of Educational Research, 104(6), 396-407. doi: 10.1080/00220671.2010.488703
- Harn, B., Parisi, D., &Stoolmiller, M. (2013). Balancing Fidelity with Flexibility and Fit: What do we really know about Fidelity of Implementation in Schools? Exceptional Children, 79(2), 181193. doi: 10.1177/00144029130790024
- Harris, K. R., & Graham, S. (2009). Self-regulated strategy development in writing: Premises, evolution, and the future. In BJEP Monograph Series II, Number 6Teaching

and Learning Writing (Vol. 113, No. 135, pp. 113-135). British Psychological Society.

- Harris, K. R., Graham, S., & Adkins, M. (2015). Practice-based professional development and self-regulated strategy development for Tier 2, at-risk writers in second grade. Contemporary Educational Psychology, 40, 5-16. doi:10.1016/j.cedpsych.2014.02.003
- Harris, K. R., Lane, K. L., Graham, S., Driscoll, S. A., Sandmel, K., Brindle, M., &Schatschneider,
- C. (2012). Practice-Based Professional Development for Self-Regulated Strategies Development in Writing: A Randomized Controlled Study. Journal of Teacher Education, 63(2), 103-119. doi: 10.1177/0022487111429005
- Hayes, J.R. (1996). A New Framework for Understanding Cognition an Affect in Writing. In: C.M. Levy, S. Randell (red.). The Science of Writing. Theories, Methods, Individual Differences and Applications. Mahwah, New Jersey: Lawrence Erlbaum.
- Henk, W. A., Marinak, B. A., Moore, J. C., & Mallette, M. H. (2003). The writing observation framework: A guide for refining and validating writing instruction. The Reading Teacher, 57, 322-333.
- Henkens, L. (2010). Het onderwijs in het schrijven van teksten. De kwaliteit van het schrijfonderwijs in het basisonderwijs. [Writing education: The quality of writing education in primary schools]. Utrecht: Inspectie van het Onderwijs.
- Holliway, D., & McCutchen, D. (2004). Audience perspective in children's descriptive writing: Reading as the reader. In G. Rijlaarsdam (Series Ed) & L. Allal, L. Chanquoy, & P. Largy (Vol. Eds.), Revision of written language: Cognitive and instructional processes. Studies in Writing, vol. 13 (pp. 87-101). Springer Netherlands. doi:10.1007/978-94-007-1048-1
- Hoogeveen, M., & Van Gelderen, A. (2013). What works in writing with peer response? A review of intervention studies with children and adolescents. Educational Psychology Review, 25(4), 473-502. doi: 10.1007/s10648-013-9229-z
- Hymes, Dell H. (1972). On communicative competence. In J. B. Pride & J. Holmes (Eds.),Sociolinguistics: selected readings (pp. 269-293). Harmondsworth: Penguin.

- Karweit, N., &Slavin, R. E. (1982). Time-on-task: Issues of timing, sampling, and definition. Journal of Educational Psychology, 74(6), 844-851. doi: 10.1037/0022-0663.74.6.844
- Kirkpatrick, L.C., & Klein, P.D. (2009). Planning text structure as a way to improve students' writing from sources in the compare-contrast genre. Learning and Instruction, 19, 309-321. doi: 10.1016/j.learninstruc.2008.06.001
- Koster, M., Bouwer, R., & Van den Bergh, H. (2017). Professional development of teachers in the implementation of a strategy-focused writing intervention program for elementary students. Contemporary Educational Psychology, 49, 1-20. doi: 10.1016/j.cedpsych.2016. 10.002
- Koster, M., Tribushinina, E., Jong, P. de, & Van den Bergh, H. (2015). Teaching children to write: A meta-analysis of writing intervention research. Journal of Writing Research, 7 (2), 300- 324. doi: 10.17239/jowr-2015.07.02.2
- Kretlow, A. G., & Bartholomew, C. C. (2010). Using coaching to improve the fidelity of evidence- based practices: A review of studies. Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children, 33(4), 279-299. doi: 10.1177/0888406410371643
- Krom, R., Van de Gein, J., Van der Hoeven, J., Van der Schoot, F., Verhelst, N., Veldhuijzen, N., &Hemker, B. (2004). Balans van het schrijfonderwijs op de basisschool. Uitkomsten van de peilingen in 1999: halverwegeeneindbasisonderwijsenspeciaalbasisonderwijs. [Evaluation of writing skills in primary education and special education: Results of the assessments in 1999]. Arnhem: StichtingCitoInstituutvoorToetsontwikkeling.
- Kroon, J. W. M. (1985). Grammaticaencommunicatie in het onderwijsNederlands. [Grammar and communication in Dutch language education]. (Doctoral dissertation). Groningen: Wolters-Noordhoff.
- Kuhlemeier, H., Van Til, A., Hemker, B., De Klijn, W., &Feenstra, H. (2013). Balans van de schrijfvaardigheid in het basis enspeciaalonderwijs 2. [Second evaluation of writing skills in primary education and special education]. Arnhem: StichtingCitoInstituutvoorToetsontwikkeling.

- Kyriakides, L., Creemers, B.P.M., & Antoniou, P. (2009). Teacher behaviour and student outcomes: Suggestions for research on teacher training and professional development. Teaching and Teacher Education, 25, 12-23. doi:10.1016/j.tate.2008.06.001
- LeidseWerkgroepMoedertaaldidactiek (1980). Moedertaaldidactiek. Eenhandleidingvoor het voortgezetonderwijs. [Mother tongue teaching. A guide for secondary education]. Muiderberg: Coutinho.
- Lipson, M.Y., Mosenthal, J., Daniels, P., & Woodside-Jiron, H. (2000). Process writing in the classrooms of eleven fifth-grade teachers with different orientations to teaching and learning. The Elementary School Journal, 101(2), 209 – 231. doi: 10.1086/499665
- McKeown, D., Brindle, M., Harris, K. R., Graham, S., Collins, A. A., & Brown, M. (2016). Illuminating growth and struggles using mixed methods: Practice-based professional development and coaching for differentiating SRSD instruction in writing. Reading and Writing, 29, 1105-1140. doi: 10.1007/s11145-016-9627-y
- Merrill, M.D. (2002). First Principles of Instruction. Educational Technology Research and Development, 50(3), 43-59. doi:10.1007/BF02505024
- Mowbray, C. T., Holter, M. C., Teague, G. B., & Bybee, D. (2003). Fidelity Criteria: Development, Measurement, and Validation. American Journal of Evaluation, 24(3), 315 – 340. doi: 10.1177/109821400302400303
- O'Donnell, C. L. (2008). Defining, conceptualizing, and measuring fidelity of implementation and its relationship to outcomes in K-12 curriculum intervention research. Review of Educational Research, 78, 33–84. doi:10.3102/0034654307313793
- Opfer, V. D., & Pedder, D. (2011). The lost promise of teacher professional development in England. European Journal of Teacher Education, 34, 3–24. doi: 10.1080/02619768.2010.534131
- Penuel, W. R., Fishman, B. J., Yamaguchi, R., & Gallagher, L. P. (2007). What makes professional development effective? Strategies that foster curriculum

implementation. American Educational Research Journal, 44(4), 921-958. doi: 10.3102/0002831207308221

- Pullens, T. (2012). Bijwijze van schrijven. Effecten van computerondersteundschrijven in het primaironderwijs. [In a manner of writing. Effects of computer-supported writing in primary education] (Doctoral dissertation). Utrecht: Universiteit van Utrecht.
- Rietdijk, S., Van Weijen, D., Janssen, T., Van den Bergh, H., &Rijlaarsdam. G. (in press). Teaching Writing in Primary Education: Classroom Practices, Learning Time, and Teachers' Beliefs. Journal of Educational Psychology.
- Rijlaarsdam, G. (1986). Effecten van leerlingenrespons op aspecten van stelvaardigheid. [Effects of student peer feedback on aspects of written composition skills]. (Doctoral dissertation). Amsterdam: SCO.
- Rijlaarsdam, G., Braaksma, M., Couzijn, M., Janssen, T., Raedts, M., Van Steendam, E., Toorenaar, A., & Van den Bergh, H. (2008). Observation of peers in learning to write: Practice and research. Journal of Writing Research, 1(1), 53-83. doi: 10.17239/jowr-2008.01.01.3
- Rijlaarsdam, G., Braaksma, M., Couzijn, M., Janssen, T., Kieft, M., Raedts, M., Steendam, E. van, Toorenaar, A., & Van den Bergh, H. (2009). The role of readers in writing development:
- Writing students bringing their texts to the test. In R. Beard, D. Myhill, J. Riley & M. Nystrand (Eds.), The SAGE handbook of writing development (pp.436-452). London: SAGE Publications. doi: 10.4135/9780857021069.n31
- Schoonen, R. (2012). The validity and generalizability of writing scores: the effect of rater, task and language. In Van Steendam, E., Tillema, M., Rijlaarsdam, G., & Van den Bergh, H. (Eds.), Measuring writing: recent insights into theory, methodology and practices (Studies in writing,27) (pp. 1-22). Leiden-Boston: Brill.
- Schoonen, R., & De Glopper, K. (1996). Writing performance and knowledge about writing. In G. Rijlaarsdam, H. van den Bergh & M. Couzijn (Eds.), Theories, models & methodology in writing research (pp. 87-107). Amsterdam: Amsterdam University Press.

- Snijders, T., & Bosker, R. (1999). Multilevel modeling: An introduction to basic and advanced multilevel modeling. Sage, Thousand Oaks, CA.
- Ten Brinke, S. (1976). The complete mother-tongue curriculum. Groningen: Wolters-Noordhoff- Longmann.
- Troia, G.A., & Maddox, M.E. (2004). Writing instruction in middle schools: Special and general education teachers share their views and voice their concerns. Exceptionality, 12(1), 19-37. doi: 10.1207/s15327035ex1201_3
- Troia, G.A., Lin, S.C., Cohen, S., & Moore, B.W. (2011). A Year in the Writing Workshop: Linking Writing Instruction Practices and Teachers' Epistemologies and Beliefs about Writing Instruction. The Elementary School Journal, 112(1), 155-182. doi: 10.1086/660688
- Van den Bergh, H., &Eiting, M. H. (1989). A method of estimating rater reliability. Journal of Educational Measurement, 26(1), 29-40. doi: 10.1111/j.1745-3984.1989.tb00316.x
- Van de Grift, W. (2007). Quality of teaching in four European countries: A review of the literature and application of an assessment instrument. Educational Research, 49(2), 127-152, doi: 10.1080/00131880701369651
- Van de Grift, W. (2014). Measuring teaching quality in several European countries. School Effectiveness and School Improvement, 25(3), 295-311. doi: 10.1080/ 09243453.2013.794845
- Van der Leeuw, B. (2006). Schrijftaken in de lerarenopleiding: Eenetnografie van onderwijsvernieuwing. [Writing tasks in teacher training: An etnography of educational innovation]. (Doctoral dissertation). Utrecht: Universiteit van Utrecht.
- Van Veen, K., Zwart, R., Meirink, J., &Verloop, N. (2010). Professioneleontwikkeling van leraren. Eenreviewstudienaareffectievekenmerken van professionaliserings-interventies van leraren. [Professional development of teachers: A review of effective professional development programs.] Leiden: ICLON.
- Wesdorp, H. (1974). Het meten van productieve-schriftelijketaalvaardigheid [Measurement of written language skills]. (Doctoral dissertation). Purmerend: The Netherlands: Muusses.

ISSN: 2583-5963

Appendix A: Example of a genre-specific writing strategy

A strategy for writing descriptive texts

A descriptive text states what an object, person or place looks like. The text contains a description of parts or qualities, but should also provide an overall impression of the object, person or place described. The communicative goal of descriptive texts is to inform.

We developed the BEVERS strategy (Dutch for BEAVERS) to help students write good descriptions. This strategy is a modified version of the IAPN planning strategy developed by Kirkpatrick and Klein (2009) for writing compare-contrast reports, in which IAPN stands for Information, Aspect, Paragraph, and Number (or sequence of the information in the text).

The strategy steps were:

1. Observe the object: what strikes you the most? Make a note of this (BE)

2. Compare the object to other objects of the same kind: in what ways is this object different? Write down the differences (VER).

3. Order your findings in a schematic outline (S).

Example of a schematic outline:

What I noticed about the object:	*This says something about*	*This will be the order in my text*
The object is white	Colour	3
It is much larger than other objects	Size	1
It is round	Shape	2
….	…..	4

ISSN: 2583-5963

Appendix B: Reliability of the questionnaires

	Cronbach's alpha (α)		
	Pretest	Posttest	Number of items deleted
Beliefs about writing			
- Writing as transmission	.69	.70	4
- Writing as transaction	.78	.70	3
Beliefs about writing instruction			
- Correct writing	.68	.68	1
- Explicit instruction	.66	.63	2
- Natural learning	.61	.68	3
Efficacy beliefs in teaching writing			
- Personal teaching efficacy	.62	.67	4
- General teaching efficacy	.71	.64	2
Efficacy in providing high-quality instruction			
- Efficacy in teaching learning strategies	.83	.86	1
- Efficacy in differentiating	.88	.88	0
- Efficacy in promoting active learning	.85	.76	4
Providing high-quality instruction			
- Teaching learning strategies	.85	.81	0
- Differentiating	.87	.85	0
- Promoting active learning	.84	.80	0

ISSN: 2583-5963

Appendix C: Statistics

Table C1: *Significance Values of Communicative Writing Analyses*

Variable	*df*	*F*	*p*
Goal directedness is mentioned while discussing text quality			
measurement occasion	1, 82	17.53	<.001*
condition	1, 82	2.37	.13
condition x measurement occasion	1, 82	.01	.94
Feedback on goal directedness			
measurement occasion	1, 75	2.14	.15
condition	1, 75	.23	.63
condition x measurement occasion	1, 75	.02	.88
Audience awareness is mentioned while discussing text quality			
measurement occasion	1, 82	.87	.35
condition	1, 82	.18	.67
condition x measurement occasion	1, 82	.87	.35
Feedback on audience awareness			
measurement occasion	1, 75	3.74	.06
condition	1, 75	.01	.91
condition x measurement occasion	1, 75	.02	.89
Students' texts are read aloud			
measurement occasion	1, 82	1.30	.26
condition	1, 82	1.80	.18
condition x measurement occasion	1, 82	1.30	.26
Students' texts are published			
measurement occasion	1, 75	.10	.75
condition	1, 75	.01	.94
condition x measurement occasion	1, 75	.88	.35

* significant at the 0.05 level

ISSN: 2583-5963

Table C2: Significance Values of Process Writing Analyses

Variable	*df*	*F*	*p*
Generating ideas			
measurement occasion	1, 81	.08	.13
condition	1, 81	2.40	.77
condition x measurement occasion	1, 81	.002	.97
Organizing ideas			
measurement occasion	1, 81	.002	.96
condition	1, 81	1.74	.19
condition x measurement occasion	1, 81	.60	.44
Revising texts			
measurement occasion	1, 74	.01	.92
condition	1, 74	3.65	.06
condition x measurement occasion	1, 74	.03	.87

Table C3: Significance Values of Writing Strategy Instruction Analyses

Variable	*df*	*F*	*p*
Teaching writing strategies			
measurement occasion	1, 81	1.33	.25
condition	1, 81	4.43	.04*
condition x measurement occasion	1, 81	14.05	.001*
Modeling the writing process			
measurement occasion	1, 81	1.53	.22
condition	1, 81	.14	.71
condition x measurement occasion	1, 81	.84	.36

* significant at the 0.05 level

ISSN: 2583-5963

Table C4: Significance Values of High Quality Instruction Analyses

Variable	*df*	*F*	*p*
Teaching learning strategies			
measurement occasion	1, 41	8.88	.01*
condition	1, 42	4.17	.05*
condition x measurement occasion	1, 41	.85	.36
Differentiating			
measurement occasion	1, 42	.58	.45
condition	1, 43	.004	.95
condition x measurement occasion	1, 42	1.34	.25
Promoting active learning			
measurement occasion	1, 43	5.43	.03*
condition	1, 43	6.05	.02*
condition x measurement occasion	1, 43	.93	.34

* Significant at the 0.05 level

Table C6: Significance Values of Teacher Skills Analyses

Variable	*df*	*F*	*p*
Text assessment			
measurement occasion	1, 38	.50	.49
condition	2, 39	.84	.44
condition x measurement occasion	2, 38	2.56	.09
Reflecting on lessons			
measurement occasion	2, 71	2.89	.06
condition	2, 37	.61	.55
condition x measurement occasion	4, 71	1.90	.12
Adapting of lessons to context			
measurement occasion	2, 68	.06	.95
condition	2, 33	.46	.64
condition x measurement occasion	4, 68	.26	.90

ISSN: 2583-5963

ISSN: 2583-5963

Table C5: Significance Values of Teacher Beliefs Analyses

Variable	*df*	*F*	*p*
Writing as transmission			
measurement occasion	1, 41	.02	.90
condition	1, 42	.003	.95
condition x measurement occasion	1, 41	1.75	.19
Writing as transaction			
measurement occasion	1, 42	1.37	.35
condition	1, 43	.90	.25
condition x measurement occasion	1, 42	.72	.40
Correct writing			
measurement occasion	1, 41	.02	.88
condition	1, 42	1.30	.26
condition x measurement occasion	1, 41	3.80	.06
Explicit instruction			
measurement occasion	1, 43	1.08	.31
condition	1, 44	.12	.73
condition x measurement occasion	1, 43	.69	.41
Natural learning			
measurement occasion	1, 43	2.62	.11
condition	1, 44	3.36	.07
condition x measurement occasion	1, 43	2.36	.13
Personal teaching efficacy			
measurement occasion	1, 43	2.46	.12
condition	1, 44	.05	.82
condition x measurement occasion	1, 43	.84	.36
General teaching efficacy			
measurement occasion	1, 41	.16	.69
condition	1, 42	1.02	.32
condition x measurement occasion	1, 41	.09	.77
Efficacy in teaching learning strategies			
measurement occasion	1, 42	19.28	<.001*
condition	1, 43	5.10	.03*
condition x measurement occasion	1, 42	4.45	.04*
Efficacy in differentiating			
measurement occasion	1, 43	2.41	.13
condition	1, 44	.19	.67
condition x measurement occasion	1, 43	1.34	.25
Efficacy in promoting active learning			
measurement occasion	1, 42	16.96	<.001*
condition	1, 43	1.33	.26
condition x measurement occasion	1, 42	.75	.39