# Students With Intellectual Disability Learn How to Write With Motivation and Joy

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Reading and writing can be seen as two sides of the same coin but have different demands for the writer and the reader to handle. The aim of this article is to focus on writing, how to create texts when students have intellectual disabilities and how students with intellectual disabilities have improved their writing skills through an intervention study. Writing will be highlighted from different perspectives, mostly about how writing can be supported through a structural way of working. When it comes to reading and reading difficulties, many studies have been done from different aspects of these topics. Most of these studies are among students with typical intellectual development. Studies about writing development and difficulties are fewer in number than studies about reading, but these are also mostly about children with typical development. When it comes to students with intellectual disability, studies about reading are rare and even rarer when it comes to writing. With this article, we will shed light on how writing difficulties can occur in general development and also when students have intellectual disability. The intervention study presented in this article will give some examples of how teachers can support every student's writing development.

*Keywords:* writing development, writing difficulties, intellectual disability, intervention

## Introduction

Different studies have shown the importance of early stimulation for children's writing development (Hagtvet, 2002). When a child has an intellectual disability, it is important for teacher to work with clarity and support in education. Katim (2000) believed that all students with or without disabilities develop forward in stages and that this is especially important for all teachers to understand. Then, the teacher can identify each student's current level and plan teaching in relation to his or her level (Katim, 2000). Vocabulary skills, understanding the meaning of words and also belief in the student's ability to learn how to read and write are other things that have proved to be significant (Hagtvet, 2002). Also, Vygotskij and Kozulin (1986) stressed the importance of children's writing and of the adult's role in supporting the child's early writing in different ways. Vygotskij and Kozulin (1986) also pointed out that when the child has learned to write, they have got tools for abstract thinking. Several researchers also raise the importance of early language skills in the preschool age and

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later writing, reading, and spelling development (Bradley & Bryant, 1983; Lundberg, Olofsson, & Wall, 1980).

According to Berg (2011), the writing function is to communicate at distance, about what cannot be said here and now. Moreover, writing is an opportunity for reflection and intellectual development. Writing helps the individual to sort and control thoughts, to capture the unspoken. In addition to providing the ability to influence various decisions, writing means power. Participation in a democracy and knowing one's rights are important for all citizens and require literacy. There are standards for written language, such as writing direction, grammatical rules, etc. The text must be able to stand for itself and the writer must understand that someone else will understand what is written (Berg, 2011).

Liberg (2006) provided an overview of how writing development can be divided into different stages, from scribbles to short texts written with the help of image support to developed grammatical writing, and the support that students need in these different stages. Reading requires that learners can decode and have reading comprehension and motivation. Writing requires encoding, text-building, and idea generation. When reading, the text is already there, while in writing, it must be created and the writer must know to whom the text is addressed. Liberg (2006) also explained that reading and the reading process have attracted much attention in research while writing and the writing process have only recently been studied. Difficulties with writing can come from lack of knowledge about the structure of language but also because the student may not know what he or she should write about and what improves the quality of a text. The student must know these things to be a good writer. It is also important for teachers to know how to develop the writing skills of students (Liberg, 2006).

### National Document for Teacher to Follow

The Swedish curriculum (Skolverket, 2018) gives explicit support for a reading and writing development approach as an important part of teaching. Chapter 1 of the curriculum states that schools rest on democratic foundations and all pupils' rights to education. The ability to communicate is described as closely related to the individual's identity development. Students should be able to trust in their own language skills, which are achieved by giving them plenty of opportunities to write. Teaching must be adapted to each individual student's needs and pre-sets. The students at risk of not achieving proficiency should be urgently addressed and be entitled to extra adaptation devices and/or special support. Schools' inspectorate reports indicate that not all students receive the support they are entitled to. The prevention work to avoid pupils failing in reading and writing is important and requires high quality teaching. Teachers need to have a clear idea of where students are in their writing process. Students need to be aware of where they are in relation to proficiency. In addition, they need to know what is expected to reach attainment. Understanding how simultaneous learning objectives can be achieved results in higher motivation among students. Continuous formative feedback to the help students to succeed and guidance for further learning nourishes student engagement (Skolverket, 2018). There are materials for teachers to use and which give an overview of what reading, and writing means when the student has an intellectual disability, and they give current research related to reading and writing areas in relation to different students who have disabilities of various kinds and degrees (Skolverket, 2014).

## Different Perspectives About Writing

Research on writing has raised various theoretical perspectives. Writing is a complex cognitive process in which different components co-play. Working memory, long-term memory, problem-solving, being able to

plan and revise as well as meta-cognition are some elements, which are of importance when a text is planned, pre-formulated, and revised. Beginner or novice writers need clear support and a lot of encouragement when a text is being produced (Alamargot & Chanquoy, 2001; Fayol, 1999; Hayes & Flower, 1980; MacArthur, Graham, & Fitzgerald, 2006). To produce a text, one also needs linguistic knowledge, e.g., phonology, orthography, syntax, vocabulary, text, and grammar knowledge (Bock & Levelt, 1994).

From a socio-cultural and discourse analytical perspective, writing can also be seen as a social practice. Which texts are written, in what context and how they are written? In what way are students experience described and what texts do teachers use to stimulate writing? According to Blommaert (2005) and Fairclough (2003), writing should be seen as part of the social practice in the classroom. Students learn from each other when their original texts are produced (Daniels, 2001). It can be easy to see the writing on the basis of the equipment used: pen, computer, iPad, mobile phone, or other things. The writing, however, requires more than the tools at the writer's disposal. It is mainly about what should be communicated and how this can be done, so that the recipient can understand what the writer wants to say. According to Svedner (1999), it is important that students have understanding and knowledge of writing's different functions. The teacher has as his or her mission to help students find the desire and motivation to write, without the formal requirements for publication, which inhibit writing. Writing is both a thought process and a work process. Regardless of what should be formulated in writing, it requires a thought process, which will then be formulated into words and sentences. This is an ongoing process throughout writing, and positive feedback increases the student's text output (Svedner, 1999).

## Writing in Relation to Students With Intellectual Disabilities

Bruner (1971) conducted research on early cognitive development and the factors that influence learning. Metacognition, awareness of one's own learning and thinking, has great importance for motivation to learn different things. Intellectual disability affects students' literacy development, problem-solving, and other academic areas (Taylor, Richards, & Brady, 2005). Torgesen (2000) agreed and believed that there is a delay in language development that has the greatest impact on literacy development. Even if a student develops the ability to read and write single words to achieve comprehension, the student may still have difficulties with reading comprehension, which means that education becomes very important. Pupils need to learn strategies to overcome phonological difficulties as well as difficulties in areas, such as vocabulary (Torgesen, 2000).

By listening to language structure, writing them, and creating words and stories were students safer and more effective even in the reading and writing (Swärd, 2008). Harris and Graham (1996) proposed explicit instructions for students when they learn to write. They recommend that students are given the opportunity to work with prescribing, drafting, revising, reviewing, publishing, and evaluating when to produce a text. Singer and Bashir (2004) agreed that the above recommendations are relevant to students' writing skills. They also highlight that fundamental abilities, such as being able to plan, organize, and control their own writing are significant and these basic abilities interact with the writing process.

Lerkkanen (2003) stressed how important it is that reading and writing are practised in parallel and that teachers initially find a student's linguistic ability in order to support the learner in an adequate way. Some students who have intellectual disability can also have difficulty with memory, which is part of the executive function and according to Lynch and Warner (2012), can be improved through writing alongside other aids, such as pictures. Even Katim's (2000) research highlights the importance of a stimulating environment; Katim

gives various examples of how teachers can create a writing environment in the classroom daily, which inspires students' curiosity to write. Furthermore, Katim's (2000) research shows that talent level is not the most important factor, but that there is support, stimulation, and adaptation of different materials based on student needs and that the teacher's methods are effective.

Dockrell (2006) believed that one of the main tasks of a school is to teach students to communicate through writing when this expertise makes it possible for students to be able to mediate knowledge and ideas. Problems with producing a written text are the most common of intellectual and communicative difficulties. To understand the writing difficulties, teachers must identify and document the ways in which problems manifest themselves. Students having learning difficulties of various kinds struggle with writing, often because they have difficulties with spelling, thinking of ideas, automated writing, planning, glancing at text output and revising ext. Students who have difficulty with writing need regular assessment solutions as well as direct and systematic support from skilled teachers. There is need for more longitudinal studies to further investigate how the writing process can be developed and supported for students who have difficulty writing (Dockrell, 2006).

The school, the teacher, and the opportunity to practise writing in class are the factors that have the greatest influence on students learning written language and developing the identity to see themselves as writers, according to Beach and Ward (2013). Students' perceptions of themselves as writers, about others and about the classroom context contribute to written language learning (McCarthey, 2001). Writing is also important for acquiring new skills due to Graham and Harris (2000). It is common for students with intellectual disabilities to also have writing difficulties, and they are in need of much assistance, according to Joseph and Konrad (2008). The authors argue for more research in writing in relation to students who have intellectual disabilities. In a research review, Joseph and Konrad (2008) found that effective strategies were those that dealt with the instructions, that students are reading, how sentences can be combined to create a text. Many of the strategies found to be effective for students who have typical development levels would, after some modification, fit well even for students who have intellectual disabilities (Joseph & Konrad, 2008).

## Writing Difficulties Can Be Different

Typically, writing is mentioned along with reading difficulties, which means that it is difficult to know what writing difficulties means specifically. It is also difficult to know the proportion of students who have writing difficulties. A major study in the US revealed that the percentage that can be said to have had writing disabilities varied between 6.9% and 14.7%. The study involved 5,718 pupils aged 5-19. The researchers said that writing disabilities are as common as reading disabilities (Katusic, Colligan, Weaver, & Barbaresi, 2009). The criteria used included the different grammatical mistakes that were made, sentence structure, how the text was organized and handwriting. The researchers discovered that there was a large proportion that was judged to have difficulty with writing (Katusic et al., 2009). These alarming figures raised questions about the standards of writing, curriculum, and curricula, teacher training and even student motivation, and other issues, such as different cultures and new technology (Scott, 2010). Datchuk and Kubina (2012) investigated the factors that are relevant to positive writing skills and what can characterize writing difficulties. Students have struggles with many aspects of the writing process, including constructing sentences. The researchers found that special intervention in handwriting and sentence structure that could then be transferred to more complex tasks, such as writing full sentences and more extended texts was significant. Teachers need therefore to first see the connection between less developed writing and writing sentences with more complex structures, and to provide

students with support in this process (Datchuk & Kubina, 2012).

Dysgraphia is a disability that affects writing and may be expressed as difficulty with handwriting, difficulty with spelling, omission of words, problems with punctuation and difficulty putting thoughts onto paper. According to Berninger, Richards, and Abbott (2015), it can be difficult to distinguish between dyslexia, dysgraphia, and oral and written language (OWL) learning difficulties. These diagnoses overlap, but it is important that teachers understand the difference between these diagnoses to be able to plan teaching to the individual learner. What works for whom is a question to be asked, and more research is needed in this field (Berninger et al., 2015).

B. Adler and H. Adler (2000) highlighted how important it is to do screening with a student who shows difficulties in writing. This means investigating which kind of support the individual needs. Between 2% and 10% can have dysgraphia, about one student in each class. Many times, writing disabilities is about mixed forms of difficulties combined with another diagnosis. Dysgraphia can be difficult to distinguish from dyspraxia, which means that the individual has difficulty translating a thought, an intention or a practice, which takes place when writing a sentence or a text. Writing difficulties may then manifest themselves in many different ways and have different causes (B. Adler & H. Adler, 2000).

## Research About Writing in Relation to Intellectual Disabilities

Joseph and Konrad's (2008) research review shows which method was most effective in teaching students with intellectual disabilities how to write. Methods containing strategic instructions were found to be most effective. Based on the criterion that individuals who were part of the examined studies would have an intellectual disability, Joseph and Konrad found nine studies with a total of 31 subjects aged 6-18, and all studies were made in school contexts. The strategies that proved effective were, for example, strategies that discussed and modelled collaborative and individual learning, and which supported remembering the different stages of text production. It was also effective that the students had to learn to plan what they wanted to write about and that teachers had different text details. The teacher modelled by talking about his or her own plan for text creation, and this practical guidance in the writing process was also important. In any model, teachers showed how letters are written with or without a computer. Even some word and computer programs allowed students to choose words and sentences to arrange them in a logical way. The studies are small and done mostly on an individual level, making it difficult to draw conclusions about the effectiveness these strategies may have in larger groups. A conclusion of the review is that there is need for more study on teaching students with learning difficulties in order to give the best effect (Joseph & Konrad, 2008).

Langer's (2002) research shows how important it is that students are taught strategies on how to think and act when it comes to the task that is in focus, and how teachers together with students have argued about this. Clear instructions and focus on what is now to be taught along with skilled and dedicated teachers gave the best outcome of the pupils' reading and writing (Langer, 2002). Other effective strategies were to integrate reading and writing with other subjects as well as to cheer the students to write individual sentences and words and, last but not least, stimulate students' curiosity (Lansfjord, 1999). Asaro-Saddler (2015) had examined the evidence-based practices proven to be effective when students are on the Autism Spectrum Disorder (ASD). Because writing is critical for the success of all other subjects in school, it is important that the teacher knows which methods can be useful. The students' texts are the teachers' main materials for assessing their writing performance. The students should also be active in social media to interact socially, which also requires writing

skills. Digital tools were also useful and visual aids but the teacher had to instruct how different aids could be used as supports in writing. Peer support was also effective. A classmate "trained" to be peers by being a secretary. Students who had ASD said what they wanted to write, and the peer helped them to write. Students cooperated with the computer or in other ways when writing activities were going on. Students learned through interaction on the basis of the instructions that the teacher gave. These examples of evidence-based methods can be transferred to classes where there are students who have different types or levels of writing (Asaro-Saddler, 2015).

Scott and Windsor (2000) had compared students of the same age but at different stages of writing and speech development. The result shows that spoken language skills were important for writing. Students who have cognitive disabilities spend less time planning, less time generating sustainable ideas and less time revising the text of both the grammar and content. This is the result Gillespie and Graham (2014) arrived at through a meta-analysis of writing interventions regarding students who have learning disabilities. The study also shows that these students often also have difficulties with context, clarity, clarifications, and objectivity when creating texts. Writing difficulties are complex and are found in various ways. Students who have different kinds and degrees of disabilities often have different experiences and fewer areas to move within. Granlund (2004) and Swärd and Florin (2014) called these "niches" and declared them as patterns of functions, roles and relationships that appear in a specific environment and/or activity that involve special physical and social character recognition. Depending on which niches the student has access to, it can be assumed that writing activities differ and that writing shows itself in different ways, not at the least if the student has an intellectual disability, which also makes other demands on the teacher's choice of method and materials (Granlund, 2004; Swärd & Florin, 2014).

The various studies and theories presented in this article demonstrate several common areas that are important for students to succeed in their writing learning. Teacher's work is about structure, planning for support and strategies to work with writing, which become even more important when students have an intellectual disability, although it can be assumed that more or less all students may need this sometime during their school years. Katim (2000) will end this section with the following quote:

> Students identified with mental retardation can become literate. For example, a ten-year-old student with mild mental retardation in elementary school may not read like other ten-year olds, yet he can demonstrate significant progress in reading and writing and continue to grow in literacy with intensive and extensive instruction. (pp. 18-19)

The aim of this study is to investigate if students with intellectual disabilities in secondary school can be supported in their writing development through a change in approach in the form of teachers modelling writing in a socio-cultural context, and if support through picture and writing templates will increase students' abilities to formulate and transmit their thoughts into writing.

## Method

The approach in this study is predominantly quantitative when it intends to measure an effect but there are qualitative elements as the effect size is measured by comparing pre- and post- tests in the form of teachers' estimates of pupils' texts. The study has a quasi-experimental design, because we do not have a control group (Stukát, 2011). The reason for this has to do with the small population and problem to find other schools to be involved.

This study is in line with both action research and intervention research. Action research is based on practice in which practitioners and researchers work together to achieve change, and we speak of a "bottom-up" perspective, i.e., it is the practitioner him- or herself that problematizes their own practice in order to bring about a change. Due to Folkesson (2012, p. 42), action research is comprised of the steps of planning, action, observation, and reflection, where the final reflection raises new questions. Regarding action research to be compared with Sundell and Ogden's (2012, p. 25) description of an intervention as being characterized by "a conscious action to bring about change" and aiming at "achieving a specific goal for a person or school". In contrast to the action research "bottom-up" perspective is the intervention process, an "outside-top-down" perspective with a view to encourage change from "within-from-below".

Efficacy evaluations in the form of intervention studies are common in the health field. But there are examples of how the intervention as a method successfully was used both in special education research (Lundberg & Reichenberg, 2013) and specifically in research on writing skills (Graham & Perin, 2007). To identify and assess the impact of the intervention, we asked two teachers to perform a pre-test and a post-test, to estimates of pupils' texts. Teacher estimation has previously been used by Lundberg and Sterner (2006) in a study on the link between literacy and numeracy and the role of students' abilities had to task orientation Teachers evaluated in a pre- and post- test of students' abilities perceived importance of learning.

## Population

The study is a comprehensive survey of seven pupils with intellectual disabilities and their writing development from Karlsson (2014) own practice in Grades 7, 8, and 9. At the time of the study, the students, depending on their grades, joined together in class from a few weeks to two years. In contrast to a random sample, the sample should be perceived as a convenience sample, which may impact the results of the investigation will not be construed as representative outside of the current student body. All participants meet the criteria to join the compulsory school for students with intellectual disability and are therefore representative of the student body.

## Ethical Considerations

Swedish Research Council's (2017) guidelines for research ethics ensured in brief that all pupils were informed of the purpose of the study, gave their assent, and were promised anonymity and that the collected material should only have been used for scientific purposes and only in the current study. The pupil also has the right at any time to cancel their participation in the study. The information was given orally to the students and also in a missive to have the signatures of both guardians of the pupils. Anonymity was promised in the final report, and only the teacher team involved was aware of the class, which took part in this study.

## Survey Approach and Result

Table 1

*The Investigation Was Carried out in the Following Three Steps*

| Stage 1 | Stage 2 | Stage 3 |
|---|---|---|
| **Pre-test**<br>Students write two texts<br>• Free text<br>• Argumentative text<br>Teachers estimate students' texts | **Intervention**<br>Students receive training in writing | **Post-test**<br>Students write two texts<br>• Free text<br>• Argumentative text<br>Teachers estimate students' texts |

The study was conducted among a group of seven students with learning disabilities in secondary school for five weeks, a total of about 12 clock hours of effective teaching, and in three steps. All students used the computer as a writing tool. They were taught to create print templates in a Word document and copy and paste images into templates.

**Pre-test**

In Step 1, the students were instructed to write a free text for an event or accident in traffic. The task began with a call to the group to watch one clip about traffic from YouTube and discuss traffic in general, the way to school between school and home, transportation arrangements to and from school and the risks in a traffic environment. The task was concretized by taking students out to investigate and document the immediate traffic environment surrounding the school, partly because they had to watch parts of the YouTube clips related to different traffic situations. Finally, their teacher got everyone to tell something had occurred or could occur, and which was related to the traffic environment. Then, the teacher released the students to be free to write. Regarding the argumentative text, students wrote about traffic rules that they felt were good and set three arguments for their opinions.

**Intervention**

In Step 2, the intervention began with a discussion with students about the specificity of argumentative texts. The group agreed that argumentative texts could be used in debates and in letters to the editor. The text was read aloud, and students discussed how the text felt and why it was important. One student pointed out how the ability to argue in writing can also be transferred to a verbal context. The student gave as an example negotiating with parents about a monthly allowance. In a PowerPoint slide, then the teacher presented an example in the form of a horizontal model with five inline images (see Table 2). As the pictures had been selected and organized, they had the makings of an argumentative text. In the first step, the students were in joint talks, coming to an argument, and then choosing the pictures. The teacher then took over by thinking aloud and modelling their version, while the text was written into the presentation.

Table 2

*Vertical Writing Template*

| Introduction picture | Text |
|---|---|
| Action picture | Text |
| Action picture | Text |
| Action picture | Text |
| End/conclusion picture | Text |

To help students to write argumentative texts, the teacher presented the rules they had to follow along with appropriate words and phrases to use. Before the students began writing, they got all their ideas about areas of concern to argue about and their associated viable arguments. The topics raised were written up on the board as inspiration for all. Then, the students began their task of writing an argumentative text about a topic that seemed important and which contained three arguments and the students spoke for the cause.

Working with the free text began in a similar way as the genre of the argumentative text. The teacher presented a text in images and words in five parts. The use of the concepts of introduction, action, and termination were declared along with how these could be used in the production of texts. For the whole group, the texts were further discussed before the joint exchange of ideas began. The proposals on the headlines that

emerged were listed on the board for further inspiration to all. It could have been something that a student experienced or wanted to experience, or a clean fantasy story. All students except one chose the vertical print template. One student wanted to use the horizontal print template to first create the story using pictures. Then, the student wrote out the series and put in the text by handwriting it before the text was written on the computer. Other students used the computer as a writing tool. The important thing for them was not the form but the writing process and the flow of the writing.

After the intervention, a third step was taken through the post-test and the result will be presented with figures and texts.

**Post-test**

In Step 3, after the intervention ended, the students wrote free texts and argumentative texts for the post-test to be evaluated by the teacher. The same teachers estimated both pre- and post- tests. Students were anonymous when they were evaluated. Three of the six teachers worked in secondary schools and the other three in secondary school classes for students with intellectual disabilities. Student texts were evaluated based on a scale of 0-3, where 0 was estimated as inability or insufficiency and 3 as well functioning. The criteria (see Table 3) were set in relation to the curriculum for Swedish schools for Grades 7, 8, and 9 (Skolverket, 2018).

Table 3

*Free Text for Pre- and Post- tests*

| | 0 | 1 | 2 | 3 | 0.749 *0.902* |
|---|---|---|---|---|---|
| Ability to maintain a chronological sequence of the story | | E | *C D* | A B C D F *A B E F* | 0.888 *0.888* |
| Ability to allow the message to form a "red thread" | C | | E F *D E* | A B D *A B C F* | 0.722 *0.888* |
| Ability to vary the choice of words | | | A B D F *C E* | C E *A B D F* | 0.777 *0.888* |
| The content and length of the task | | E F | B C D *C* | A *A B D E F* | 0.611 *0.944* |

Teachers A, B, C, D, E, and F and their evaluation of students' writing development.

Table 4

*Argumentative Text for Pre- and Post- tests*

| | 0 | 1 | 2 | 3 | 0.555 *0.888* |
|---|---|---|---|---|---|
| Ability to maintain a chronological sequence of the story | | A | C E F *A B* | B D *C D E F* | 0.722 *0.888* |
| Ability to allow the message to form "red thread" | F | A | C E *A B* | B D *C D E F* | 0.611 *0.888* |
| Ability to vary the choice of words | | | A C D E F *B D* | B *A C E F* | 0.722 *0.888* |
| Ability to argue for their opinion | B C D F | A | E *B F* | *A C D E* | 0.166 *0.888* |

## Descriptive Statistics for the Student Group

Based on students' averages in the argumentative text and free text pre-tests, an average for the student body as a whole was counted, and that formed the basis for calculating the standard deviation.
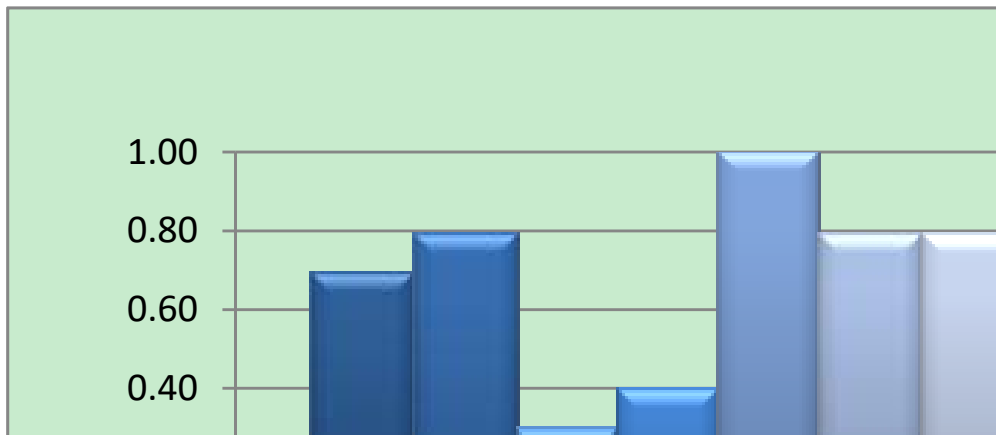
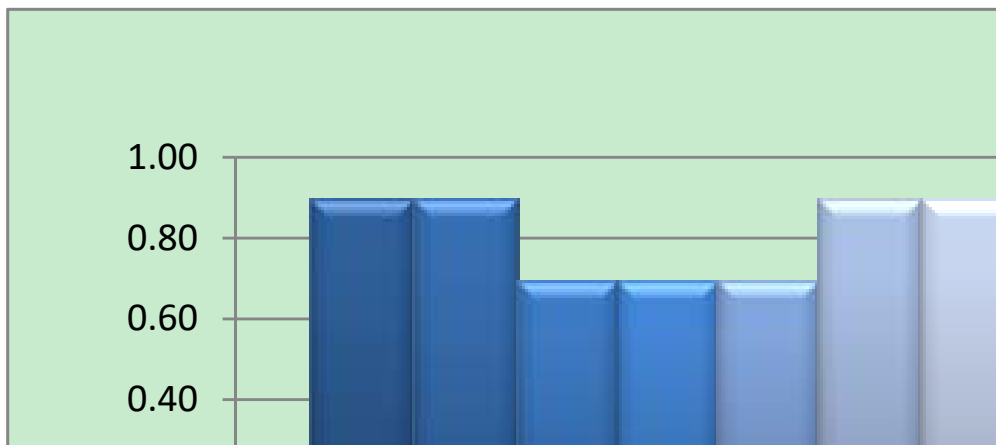*Figure 1.* Free text for pre-test (Mean = 0.686; standard deviation = 0.248).



*Figure 2.* Free text for post-test (Mean = 0.814; standard deviation = 0.176).
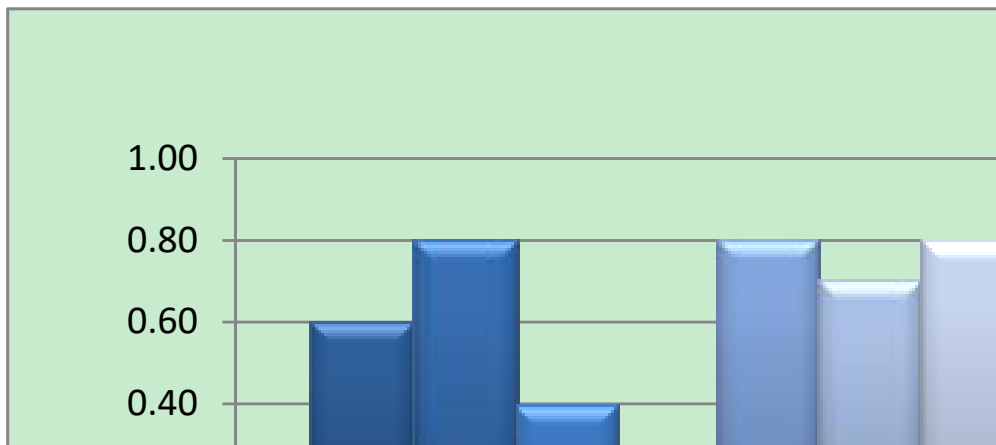


*Figure 3.* Argumentative text for post-test (Mean = 0.614; standard deviation = 0.234).
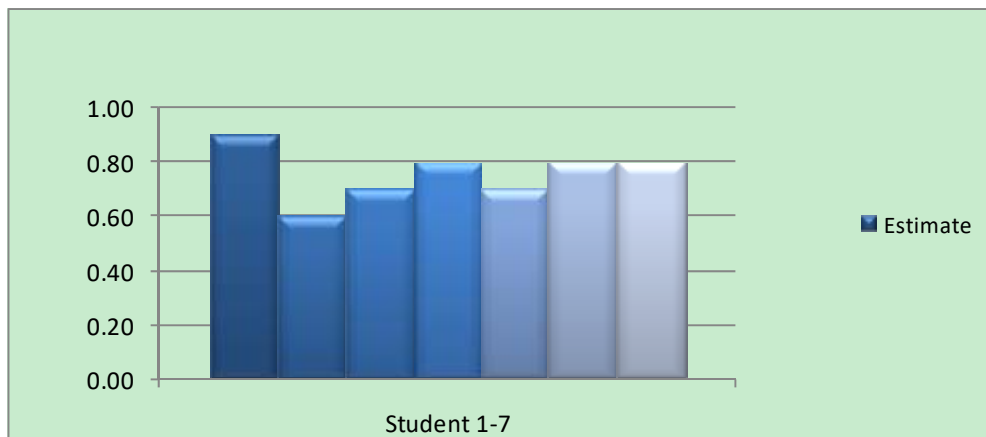
*Figure 4.* Argumentative text for post-test (Mean = 0.757; standard deviation = 0.098).

## Normal Distribution

Körner and Wahlgren (2005) described normal distribution as a phenomenon "completely determined by its mean and its standard deviation" (p. 97). Visually, a normal distribution is illustrated by a curve that is always symmetrical about its mean (Körner & Wahlgren, 2005). Provided that the sample is not too small and clear on repeated random sampling a variation in the results can be described by a normal distribution. This study lacks random selection and is a limited sample, which can be seen as an explanation for the absence of a normal distribution. By calculating the difference between the pre- and post- test mean average values, intervention change was made visible. To increase interpreting ability, 100 multiplied values.
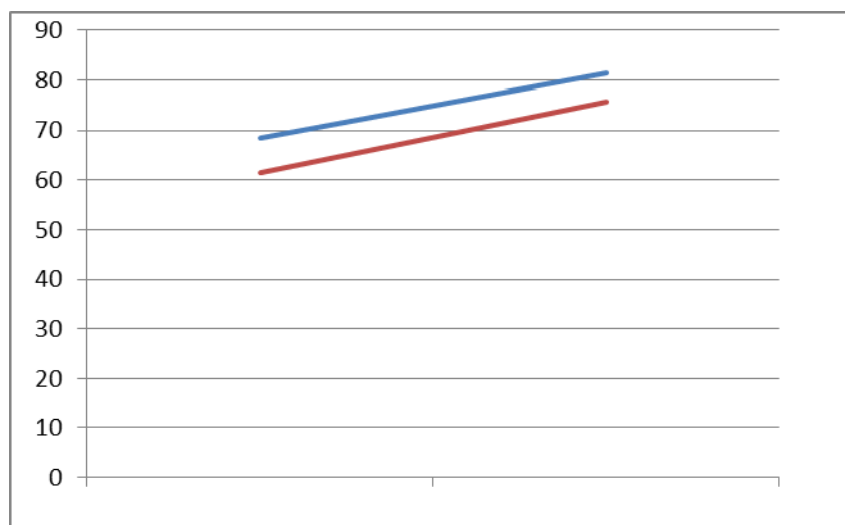


*Figure 5.* Intervention effect (%).

Table 5

*The Effect of Intervention*

|  | Pre-test | Post-test |
|---|---|---|
| Free text | 68.571 | 81.428 |
| Argumentative text | 61.428 | 75.714 |

The intervention effect on students' abilities to write free texts showed an increase of 12.9%, and argumentative texts an increase of 14.3%.

## Discussion and Conclusion

An analysis of the study's three interventions showed a significant improvement in students' abilities to write both free texts and argumentative texts. The effect of the 12 clock hours of writing practice under the conditions offered by the intervention showed that students improved their ability to write free texts by 12.9% and argumentative texts by 14.3%. The result reveals, therefore, that it is the ability to write argumentative texts that has developed in most of the students' writing. It is also noteworthy that it was the group of students who previously performed the least that showed the greatest progress in their writing skills, regardless of genre. The largest increase in writing skills came from the same group of students in their argumentative text, due to the fourth criterion in the curriculum: "Ability to argue for their opinion". Examples of these students' free texts also point to a general ability to write argumentative texts, as evidenced by the free texts enriched with arguments. Likewise, rather than being stacked on top of each other, fuller arguments are interrelated and complemented with possible consequences. You can also find examples of how students show a broader perspective in their narratives in free texts. Future research will have to determine if any of the three actions were more important than any other in how to develop the student's writing skills.

Students with learning difficulties often show difficulties in planning, reflecting, and revising work to produce texts, and results from this small study are in line with earlier research showing how important it is for students to have adequate support (Alamargot & Chanquoy, 2001; Fayol, 1999; Hayes & Flower, 1980; MacArthur et al., 2006; Singer & Bashir, 2004). The crucial to the intervention's positive effect on students' writing skills was how the three initiatives (the modelling teacher, writing templates, and image support) made the content of the teaching clear to the students. At the same time, the templates and images offered support and relief to the students' working memory as they needed to keep their thoughts and motivation at work. Students' access to a tool in the form of image support meant a faster process of getting a planned idea, not yet written down on paper, first in the form of pictures and then in the form of text as also Lynch and Warner (2012) recommend, which are important components to supporting executive functions. Inspired by Katim (2000), Karlsson (2014) included support to both group and individual levels and a stimulating environment. The intervention was based on individual conditions of planning, reflection, and revision; all components were needed for developing the students' writing. This intervention study from Karlsson (2014) used some strategies from Joseph and Konrad's (2008) research review found to be most effective in teaching students with intellectual disabilities to write, like modelling, collaborative and individual learning, and support in remembering the different stages of text production. Karlsson (2014) himself was the modelling teacher by talking about his own plan for text creation, to guide the students in their writing process. By using a template, students chose pictures and continued to write sentences in a logical way.

The purpose of this study was to contribute knowledge about how a changed approach can support the writing development of students who have learning difficulties. The effect of the intervention shows that it is possible for students with learning difficulties to feel joy in the painstaking process of learning to write. In a write-development approach, such as Karlsson (2014) model, students are given opportunities to plan, think, and do with clear instructions. The desire and curiosity to learn in a context characterized by interaction and understanding of teaching content was needed (Langer, 2002). The results also show a clear increase in

achievement for all students. In particular, the students before the intervention that had the greatest learning difficulties made great progress. This intervention study is based on a socio-cultural perspective that writing can be seen as a social practice, and as a part of a social practice in the classroom (Blommaert, 2005; Fairclough, 2003). What was the different content in students' texts and how did they discuss each topic before and after writing? Due to the results, it seems that the students have learned more about different functions of writing and how to create different types of texts. The modelling teacher also helped students to find their desire and motivation to write. One student also showed that he had understood how to use argumentation in different situations in his life (Svedner, 1999).

Communication through written but also verbal language is often complicated with intellectual disability. Producing a written text comes with common difficulties and is important to learn in a democracy. An individual's voice, written or spoken, has an impact on many decisions in his or her life. Therefore, it is important to work with students' perceptions about themselves as writers (Dockrell, 2006; McCarthey, 2001). To support every student in writing is an important part of teachers' work, no matter what needs or difficulties the student has. If a student has been found to be at risk to not to reach a goal, he or she is entitled to extra adaptation, devices, and support (Skolverket, 2018). Writing difficulties are complex and can have different causes. In the study presented in this article, all students had intellectual disabilities and struggled with their writing development. This intervention using Karlsson's (2014) model gave good results to all and was very efficient for students needing a longer "way" to reach the goal. In agreement with Joseph and Konrad (2008) about the need for more research on writing and students with intellectual disabilities, we end this article by agreeing with the authors' conclusions and hope for more research.

## Acknowledgements

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