LETTERING BOOK FOR SPECIAL-NEEDS AND LOW-LEVEL PRIMARY SCHOOL STUDENTS

Zulfian Rahman, Ikhsanudin Ikhsanudin, Sudarsono Sudarsono
Faculty of Teacher Training and Education, Universitas Tanjungpura Pontianak, Indonesia
zoolscard@gmail.com

Abstract
This article initiates the discussion about alternative idea that might break the deadlock in supporting materials for students with writing difficulty in inclusive school and children with special needs in general. This article discuss the importance of lettering book and alternatives in order to help children to overcome their weaknesses in learning basic skills such as writing. In this article, the writer includes introduction, types of special needs and low-level primary school students, the definition of lettering, parenting for helping the special needs children, and conclusion. Furthermore, the book can be used by teacher and parents outside the classroom to direct children’s activity and to control their progress in the remedy of their learning disabilities. In the last part, the writer urges publishers and teachers to develop lettering book for children with special needs to overcome the children’s difficulty in acquiring writing skills.

Keywords
Alternative material, lettering, special-needs students, parenting

1 INTRODUCTION
Inclusive schools and children with special needs are commonly recognized as one example of minor issues in Indonesian Education. Therefore it needs attention. The major problem arise in inclusive schools is the lack of materials for children with special needs. In Tsaputra (2016) article, Indonesia sets less than a few school for special needs and low-level primary school student. It is called the special primary school for children with disabilities (Sekolah Dasar Luar Biasa/SDLB). The school fully authorized by government. Another lesser numbers of school were set up to accommodate only for students who bears vision impairment. Special Education was only provided for children with vision impairment, hearing and speech impairment, physical disability or the combination of any of those multiple disability.

The problem for Indonesia is that the number of special schools are still very limited as cited in Sugiharto (2008), mostly the school located in in the capital city of province of regencies whereas majority of children with intellectual disabilities live in villages or rural areas. Consequently, designing teaching materials for diverse purpose and specific target of students has become dilemmatic. From that point of view it assumed that special needs education in Indonesia is desperately needs a breakthrough in conducting alternative materials.

This article aims to open a new perspective regarding to the lettering book as an alternative materials for teaching special needs and low-level primary school students. This article also try to elevate the idea of lettering book that might offers a lot of potential for further research in providing students with special needs alternative learning materials they could enjoy, with the hopes that later they could overcome their disruption in learning process. These also means open a lot of discussion for designers, educators, and researchers to collaborate together in making the product.

2 TYPES OF SPECIAL NEEDS AND LOW-LEVEL PRIMARY SCHOOL STUDENTS
2.1 The characteristic of special needs and low level primary school students
The major description of special needs and low-level primary school students can be depicted as those who bears the learning differences, mental health issues, specific disabilities (physical or developmental), and giftedness. Terms “Special Education” refers to students with developmental issues, learning and mental conditions, and other disabling conditions. They are neurological disorders that might manifest themselves as difficulty in basic skills (listening, thinking, writing, speaking, spelling, or calculating). Terms of special needs is commonly grouped into two; (1) autism and, (2) disorders. Autism later described as limitation in basic skill difficulty, while disorders are ADHD, and disruption in learning or learning disability. Followed the study of Richard (1999), learning disability defined into three; (1) Dyspraxia, or motor/muscle difficulty, (2) Dyslexia, or impairments in letter/word recognition, and (3) Dysgraphia, or disruption in writing.

Dysgraphia in Richard (1999) study is a writing pattern characterized by substantial effort which interferes with a
students’ ability to convert ideas into a format. He continue that primarily the student experiences difficulty in automaticity remembering and mastering the sequence of muscle motor movements needed in writing letters or numbers. Bloom (1956) in Blondina (2010) stated that learning to write can be considered situated primarily in the psychomotor domain. This finding coherent with Richard (1999) theory about children learning style. Blondina continues her argument by concluded that whether learning to write or having skills of writing can only be done with one way which is write a letter by letter. On the contrary, in Indonesia terms “Special Education” are being overgeneralized. Any issues regarding inclusive school mentioned by Sugiharto (2008) and Tsaputra (2016) gives the clear picture that the education system can afford several developmental issues only, not yet able to cover minor issues like children with writing difficulty or else.

2.2 The learning style of special needs children
Children with special needs learn quite different than the normal ones. Normally be assumed that they are not learning because of disruptions they had. B. Weeks (2005) in Vini (2015), described that those disruptions can be categorized as: (1) spontaneously write badly, often illegible or unreadable, (2) awkward cramped pencil grip, (3) avoidance of tasks that involve writing, (4) difficulty in delivering ideas on paper, (5) Inconsistent in the way letters look, and (6) Difficulty writing within the margins or line spacing between the words. Dysgraphia or later described as difficulty in writing, explained by Richard (1999) into; (1) motor impairment. The likes of tremor, overlapped letters and reduplication of strokes, and (2) spatial disorders. The disruption of poor alignment of letters, crowding of words, and omitting a margin.

To meet the needs of special needs students there has to be some assistance programs. The educational assistance is the environment that capable to give opportunity for the students to reach the actualization optimally (Clark 1996 in Semiawan 2007, p 112), Vini (2015) added that the educational assistance should not be so different with the educational assistance for the normal students. Special needs students, especially those with dysgraphia does not have to go to a specific school, but rather they can just go to inclusive school. What we can draw from Vini (2015) is that she encourage children with special needs to go to inclusive school. However, not all of them are supported to those who had a specific learning disabilities like disruptions in writing skill. Tsaputra (2016) said that there are less than a few course books designed specifically for those who had difficulty in writing. This could triggered the collaboration between book publishers, designers, and teachers to discuss the alternative of what should they produce due to create the alternative in the middle of cynical education system. Such a new collaborative approach in typographic design research might allow not only for a deeper understanding and explanation of which typefaces are best for beginner readers, but also for the development and design of new, concrete, and functional typefaces and guidelines.

3 THE DEFINITION OF LETTERING

3.1 The Definition of Lettering
In general the idea of lettering or hand lettering often described as the techniques of drawing fonts. It is also considered as the part of typography studies, of font and typeface. But Leslie (2004) formulate the general description that lettering refers to the creation of hand-drawn letters to apply on the object or surface. Later on, another study by Foster (2014) claims that it includes calligraphy, and lettering for purposes such as blueprints and comic book, as well as decorative lettering such as sign painting and creating custom lettering graphics, for instance on posters, for a letterhead or business wordmark, lettering in stone, lettering for cars or to advertise some business franchises, tire lettering to customize tires, or on chalkboards.

Lettering however is not just a matter of creating fonts in numerous platforms. It can elaborate with the other discipline outside the art and business. However, not all the elements of the lettering and typefaces and fonts can directly implemented to the education fields and match their purposes. In applying such techniques and elements of art, we need to understand which part of these creative matter does intact with the education purposes. Some studies were conducted and had a same discussions about the matters of implementation of art. Ann Bessemans (2016) conduct the research article about the current issue regarding types, letters, and children. Her article pinpoints that a discussions about typefaces for children and the legibility thereof remain inconclusive. Designers, educationalists, and legibility researchers have contrasting views about the proper use of children’s typefaces and educationalists’ view are often based on prejudice and on the force of habit. They tend to follow the views of their potential clients and legibility researchers often lack a professional approach to layout in their experiments. She later claims that her article argues that design research and particularly the collaboration between the type designer and the scientific legibility researcher is crucial.

By the end of her journal, Bessemans (2016) urges the collaboration between researchers, educators, and type designers to create one product that represent all potential clients and legibility researchers often lack a professional approach to layout in their experiments. She later claims that her article argues that design research and particularly the collaboration between the type designer and the scientific legibility researcher is crucial.

With all those findings given by the expert we can draw the silver line that only particular things will agreed or can be installed to the targeted discipline. One should be the example is developing typefaces specifically for the children. These installment means to develop a group of alphabets, numbers, and signs for the children to help them catch the idea of those elements and resulted in enhancing their reading skill, understanding the shape of alphabets, and the ability to write (writing skills) by copying or mimic the shape of the letters one by another.
In Bessemans study (2016), typefounders like Rosemary Sassoon, Adrian Williams, Vincent Connaire, develop fonts specifically for children and reading-writing needs for beginners. Typefaces and type founders are follow traditions and popularity as children’s font was widely used by publishing house to publish books for children, as well as the other likes of books; practice book, teacher’s book, etc. To conclude that designing typefaces or fonts especially for the children, the next question should be; are they really need these material?

3.2 Lettering book for children with special needs

We already know that lettering decided by designing the particular typefaces and fonts for the specific purposes. We already know that education and lettering (representing the art fields) agree each other in providing typeface design for the children, with a vision that these child may understand the ideas of alphabets, numbers, and be able to read and write respectively. But in this article we change variables from the normal children to the children with special needs. Autism, and any kinds of learning disability is generally having trouble with acquiring basic skills. If not, they also having trouble with disruptions, something they can easily get distracted and lose the control of their emotion, resulted in stopping the learning process. Hence, we can come into a new question “does lettering helps the children with special needs?”

The first, Richard (1999) stated that any children can perform artistic creative drawings if they liberated their motor function inside their memories. These findings agree with lettering as the process of drawing the shapes of letters. Hence, does not require any motor remembrance to perform any drawings consequently.

The second also from Richard (1999), where he mentioned that drawing and a lot of motor skills do not demand of precise automatic, sequential motor patterns. Instead, they rely on movements that involve more visual guidance and decision-making as they performed. We also know that lettering can elaborate with another disciplines like education, with the details in designing the alternative materials for the children with special needs. But there are questions demanded; are the children really need these alternative material?

Tsaputra (2016) study give us the clear idea about the limitation in providing materials for the students with learning disability and another kinds of developmental issues. His basis analysis lead this article to urge the idea out of education discipline in order to offer alternative regarding the supplementary matters in teaching and learning process.

With the clarity in Tsaputra study, we can move on to discuss what sort of design must be develop to the children with learning disabilities? To answer this question we need to look into Blondina (2010) analysis study about children sensitivity over typeface design. She believes that a lot of educators, researchers, and developers are discussed about the children typefaces but none has conducted the empirical studies. In her studies, she questioned why lots of teachers consistently suggest to use sans serif and the use of infant typefaces, and ended with question mark of did those teachers had a tacit knowledge in behind.

On the other hand, her analysis followed up with another study by Ann Besseman (2016), who also found that some designers are commonly conducting sans serif typefaces as the usual font in many children books. The reason of using sans serif typefaces as children’s typeface are explained by Besseman (2016) in her findings of why teachers are commonly use sans serif typefaces because; (1) they reflect handwriting qualities, (2) appear more simple, and (3) are supposedly easier to read. Besseman (2016), follows this finding with precaution that one of the dangers of the implementation of infant typefaces is that, because they translate writing visually, they do not have the overall appearance of conventional typefaces of reading, as serif typefaces are used in most reading books. She also take notes that type designers realized the fact that sans serif typefaces are not the most legible fonts in the world. However their awareness has been watered down due to the market demand highly requested sans serif to be the general typefaces in producing books. In sans serif typefaces, the letter shapes are homogeneous, and thus less distinguishable from each other, making them less legible. Teachers’ view which tend to dominate the type design scene for beginner readers, are thus highly intuitive and strengthened by tradition. She also cited Sue Walker (2003) that most of the research are into the reading material for newbie readers and care no less in designing issues regarding to fonts, as well as classroom practice.

The findings of Besseman (2016) research can lead to us to think that there are possibility for further research in designing children with special needs worksheets with larger typefaces and fonts that suitable for their visual awareness. Her suggestion in collaborating between researchers, educators, and designers is as imminent as the importance of choosing the right typefaces in developing fonts that being used as the drawing objects in the lettering book. This coherent with findings of another previous studies by the experts, the idea of lettering book should be consider as the silver line, bridging collaborations between researchers, educators, and teachers to conduct the book they needed for teaching those children. With typefaces and worksheets in order, lettering book may elaborate the children needs.

It must know that typefaces, as cited from Tinker, 1963; Watts and Nisbett, 1974; Walker, 1992 and Wilkins, 1995, stated that all any elements related to typefaces such as the font, the size of the type, the spacing between lines (interlinear spacing), the spacing between words and letters, and the contrast of the print and paper are all thought to influence legibility. The earlier studies conducted by the expert designers and researchers was to seek the optimal legibility in children readings, thus often varied in the scales and numbers of fonts. However, Hughes and Wilkins concluded that children reading speed and accuracy could be increased by presenting them a bigger text, wider space typeface.

3.3 Factors in the lettering book that may help children with special needs

The first, is the suitable fonts or specific typefaces larger than the normal size. It is clear that they are generally attracted to various shapes, colors, and objects with the larger size. Hence, special needs children easily prefer something that is larger than the normal ones. Studies of
Arnold Wilkins (2009) shows the importance of font size, that in children’s reading material font or typefaces is larger than the adult typefaces; the x-height (height of the central body of letters) is somewhere round 4 mm in children’s early readers and decreases to adult size (~ 2 mm) over the course of 5 years. In the addition to those complexity; the shape of characters may differ from those in adult text. Blondina (2010) states her point she cited from Hughes and Wilkins (2000), that as the child grows or age, the content of reading material becomes more complex and it will only burden them to increase the complexity of the visual aspects of the reading material; in this case, decreasing type size and line spacing. On subject of letterforms specifically designed for children, again by Hughes and Wilkins (2000) whose conclude that reading speed and accuracy could be increased by presenting children with a text having a larger, more widely spaced, typefaces. He added the most typefaces suits for children are sans serif. Visual psychophysical studies in adult readers have shown that serif have little effect on legibility (Arditi & Cho, 2005), and studies in children concur (Walker & Reynolds, 2003, 2004).

The second, is the numbers guidance. Every alphabets, numbers, and signs are attached with the small numbers and paths in every corners of the object to guide the eyes of children, hope that they will follow it as the guidance in their drawing. This not only give the targeted children a proper size of fonts that agrees with their visual recognition but also provide them a guidance to draw the shape in the further progress. A visual guidance is to lead the children to the particular actions to draw the shape of letters precisely. It requires the artistic guide, consist of any hand-styles of gripping the pencil, which gives the children an idea that they are not wrong because of what they are, they are what they are as long as they could manage draw the shapes of letter correctly.

### 3.4 Psychological process in lettering activities

Writing skills is the process of organizing words, ideas with memory intact, paying attention, and involving motor skill and another various aspect. By any means, students are demanded to conduct all those elements into one single action which is writing. However the special needs symptoms interferes student’s ability to express their ideas and disrupt the writing process. These children are having problem in expressing the order and synchronize many mental functions at once; organization, memory, attention, motor skill, and various aspects of the language ability. With those complexity in order, students are forget to remember where to put the pencil and how to form letters, and result in forgotten actions of what they previously want to express.

There are none medications for those with learning disabilities, but therapies and teaching strategies can address children’s difficulty in writing. Therefore, it depends on psychological approaches to affect children minds and encourage them to write. It almost be considered as something new when we linked lettering with psychological affections during the activities of drawing the letter shapes. Regardless, if lettering does happen as a part in therapy, advantages that might happened are;

- The interchanging order that can switch from writing letters to drawing the shape of letters. Children with special needs unconsciously will change their recognitions and actions. Those who have difficulty in writing and other learning disruptions rejects in responding the order to write things. Another problem is mostly happened during their time at school. At an early age, these students demands to forego recess to finish copying material from the board, and are likely to be sent home at the end of the day with a lots of unfinished papers to be completed. Because they are bright and good at reading, their failure to produce acceptable work is blamed on laziness or carelessness. The resulting anger and frustration can prevent them to reach their true potential.

Burdens and rejections can be remedy with something outside of their routine, something that could give them a therapy; self-discovery which would lead them to back to learn a lesson. When we pulled this statement into a valid theory, it does explained by Jan Prasko (2009) as he cited several experts (Wojcik & Iverson; France et al 1995; Prasko et al 2006) that the letter writing has been used as a strategy in different psychotherapeutic approaches. The likes of narrative therapy, cognitive therapy, cognitive analytic therapy are the very example of the letter writing. Despite having a lot of findings about writing therapy, Prasko’s study (2009) not mentioned any kinds of therapy related to the artistic approaches. He only refers the letter writing simply as write the letters. Regardless, we can still elaborate Prasko theory into our discussion, one we can pulled from his study is that writing as an therapy does some impact emotionally and remedy the feelings for those who experience the traumatic, the difficult feelings, with the chance to be finally free from these feelings. These should be work in lettering as the therapy too.

Children who theoretically affected by the order that change its variable from writing to drawing might have different respond. Children can easily follow the drawing order because it doesn’t burdensome their actions. They already stressed out because of their incapability to acquire writing skills. Despite, when the instructions comes out and turns out it was to draw something not to write something, it might seems to be a relief because they are no longer be ordered to write instead they are freely to express themselves in drawing.

Because lettering change the order from writing to drawing, children can practice to draw a shapes of alphabets rather than write them. These findings might be the novelty in changing the children’s cognitive from writing to drawing. There has to be a theory about lettering as one of the therapy methods.

Blondina (2010) dissertation is the study where she mentioned that others-psychologist, ophthalmologists-have also done their share of research. In fact, she praises French ophthalmologist Emile Javal as the first researcher to have conducted empirical research in the domain of typography for children. Their associates have led the way to improve the future research on legibility of print and eye movements related to reading.

In these learning difficulty, emotional factors matters and most of them are exacerbate matters. Young children in kindergarten or grade one students should learn to form letters correctly; kinesthetic memory is powerful and incorrect habits are very difficult to eradicate. Muscle training and over learning good techniques are both critical.
for the remediation of dysgraphia. Specific designed exercises are needed to increase strength and dexterity. A specialist can recommend the most appropriate plan of exercises. For all students, kinesthetic writing that is writing with eyes closed or averted, is a powerful reinforcer. Work needs always to begin with the formation of individual letters written in isolation. Alphabets need to be practiced daily, often for months.

3.5 Alternatives in the lettering book that offers to provide assistance for the children with special needs

In their role as a supplementary for a specific reason, lettering book helps the children to overcome their weaknesses in their difficulty in writing by changing writing habit into drawing habit. This are part where the discussion of lettering book needs to be more intents to prove whether or not the change of cognitive awareness could affect children’s perspective from what they thought difficult at the first place. That means, lettering play a role as a therapy. It operates to direct children’s emotions to draw not to write, thus can enhance their motor skills, and stimulate right-brain section to develop their creativity.

Lettering can help the children to coordinate their nerve system which they are having trouble with. The numbers with attached to any shapes of letter given by the book are guidance to drive the children draw the shape respectively by follow the numbers one by one. These numbers will lead children visually to follow the steps to draw the shape, while unconsciously realizing that they are writing a big letters. The drawing activity can ensure the children to think that this alternative material is not the part of the classroom assessment. There also need more findings to ensure that drawing the shape of letters helps them in overcome their weaknesses in acquiring writing skills.

4 PARENTING FOR HELPING THE SPECIAL NEEDS CHILDREN

4.1 What should parents do with the lettering book?

Lettering book can be used by the parents to help their children’s progress at home. Their learning disability are not in halt when they come back home after the school. Because of that, parents should control their children to keep in support for them to enhance their drawing skills. The steps are as follows:

a. Follow up and training

During at home, parents can follow up the children’s progress within the book and let them continue their progress. Keep in mind that this is not the homework and dont straightly ask the children to draw once their home. Parent needs to make them comfortable in showing their drawing process.

b. Guiding and drawing together

If parents can draw or interested into the art as well, they can draw together with their children. This book provides a lot of worksheets to draw the letter and they can enjoy drawing with the children. This can develop children’s confidence. Parents also become their role model in drawing letters.

c. Contact with teachers

Communication between parents and teachers can enhance parents’ understanding of their childrens’ progress.

Through discussion, both parties can work together to come up with the most effective mode of learning.

Prevention, remediation, and accomodation are all important elements in treatment of dysgraphia. Many problems can be prevented by early training. Young children in kindergarten and grade one should learn to form letters correctly; kinesthetic memory is powerful and incorrect habits are very difficult to eradicate. Muscle training and over learning good techniques are both critical for the remediation of dysgraphia. Specifically designed exercises are needed to increase strength and dexterity. For all students, kinesthetic writing that is writing with eyes closed or averted, is a powerful reinforcer. Work needs always to begin with the formation of individual letters written in isolation. Alphabets need to be practiced daily, often for months. Finally, individuals can benefit from a variety of modifications and accomodations. One effective method is to teach the use of a word processor, by-passing the complex motor demands of handwriting. Many students may find learning the keyboard by the alphabet method easies than beginning with the home keys.

5 CONCLUSION

In the last part of this article the writer encourages book publishers and teachers to collaborate together to develop lettering book as one of the alternatives to support materials for special needs children who struggling in acquiring writing skills. Lettering as if it was one of the elements of typography, are none other than a process to elevate the ability to write things in proper way according to this article. It also enhance the artistic perks to the children with special needs. Further research should be done to develop the lettering book as the whole and needs annual improvement from year to year. These article cement the idea of how important the lettering book is in providing alternative materials in helping special needs and low-level primary school students. In the detail they need a distraction which turns to be the remedy of what learning difficulty they’ve faced and overcoming the disruption in acquiring writing skills.

6 REFERENCES


Blondina, Elms, Pastel. 2010. Are Children Sensitive to Typeface Design? An Analysis of Research (1911-2010), S-2734-2017


