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Research Paper

The Power of Handwriting for Self-Expressions and Learning Optimization

Susi Yunarti^{1*}, Wijayanti², Dian Harmaningsih³, Siti Komsiah⁴, Achmad Muharam⁵, Saefudin⁶

1,2,3,4,5,6</sup> Universitas Persada Indonesia Y.A.I, Indonesia

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Abstract

Now days most students did not want to make a note anymore by handwriting for their study or when they listen to the lecture in class, and they rely more on digital devices for their lecture activities. The aim of this research was to understand and explain about the utility of handwriting for the process of study and learning, on the other hand, handwriting was also a tool for self-expression, and in the future, it was necessary to preserve handwriting skills. Base on theory of symbolic interactionism by Blumer, that by giving meaning to symbols, human can express things with language, which in turn, symbols form the basis of communication. And further humans used their hands and fingers to produce and develop the communication symbols needed, whether in the form of pictures, paintings, or written letters. Through qualitative research by conducting observations and interviews with 25 students at three universities in Jakarta, and equipped with digital literature study, the research results found that For learning optimizations, it has been proven that the ability to write manually will really help children and students learn fluently, especially in improving memory and helping students focus more on learning. Also known that handwriting a tool for self-expression and creativity, where the writing process will form uniqueness and personal character. Conclusion Policies and methods of learning process needed for preserve handwriting skills.

Keywords: Handwriting, Self-Expression, Learning Optimization, Symbolic Interactionism

INTRODUCTION

The theory of symbolic interactionism explains how humans use and interpret symbols in the communication process to be able to interact and relate to each other, and this ability differentiates humans from animals, because in producing symbols and interpreting them, humans need think and use their brains. Like Blumer's conceptual perspective that by giving meaning to symbols, human can express things with language, which in turn, symbols form the basis of communication (Nelson, 1998). Before the discovery of various modern technologies that could help humans produce symbols, humans used their hands and fingers to produce and develop the communication symbols needed, whether in the form of pictures, paintings, or written letters.

During its development, letters as word-formers found their forms into distinct types according to their place and era. we know Latin letters, Hijaiyah, Kanji, Hangeul, and Han or Chinese characters which are quite popular among people around the world. There is also a rune alphabet used by citizens of Scandinavian countries. These types of letters for writing students usually required learned from an early age in each community as a handwriting skill in addition to forming the reading skills needed in studying science in the future. According to the child's motor development stages, and the child's level of understanding of letters (Septia, 2023).

The United States recently, through the implementation of Assembly Bill 446, required students in grades 1 to 6, aged 6 to 12 years in California, to re-learn cursive handwriting, Latin letters. Considering that in the current era we were increasingly using and applying printed letters, typing on the keyboard for writing, and taking notes, or for other purposes such as sending letters, both personal letters and official company letters. Thus, reducing handwriting skills, was no longer beautiful handwriting, important notes on paper that leave history, meaningful quotes, and words of wisdom, which can students interpreted deeply because they written in beautiful letters by agile and skilled hands and fingers. (Yutig, 2023).

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Corresponding author's email: susi.yunarti@upi-yai.ac.id





Apart from the aesthetic elements, experts see and understand that the use of this handwriting ability can be beneficial for each of us, and children who are just starting to learn to write. Psychologists believe that writing improves memory and helps students retain learning better when working with various ideas then recognizing and better interpreting various existing symbols through handwriting instead of typing. one study revealed that handwriting improves brain ability compared to typing, the findings suggest that precisely controlled hand movements while writing lead to spatial and temporal patterns in the brain that promote learning (Putri, 2024). Writing by hand helps activate our brain and improves reading fluency, like Maria Konnikova notes (MacKenzie, 2019), students with better handwriting demonstrated can increased overall activation in the reading and writing networks of the brain. Proficient writing has a soothing flow and rhythm amidst today's fast-paced and intense movements. So, we can find a healthy balance in our work, our learning, and our play.

The issue is, nowdays most students do not want to make a note anymore by handwriting for their study or when they are listening to the lecture in class, according to the results of our previous observations. How important to use handwriting in the proses of study and learning. Is it necessary to have skill of written hand in this era.

The purpose of compiling this article is to understand and explain about the utility of handwriting for the process of study and learning, as tools for self-expression and creativity. That was why important to preserve handwriting skills. Novelty of research is how to preserve handwriting as one of skills in digital Era.

LITERATURE REVIEW

Theory of Symbolic Interactionism

Refers to Symbolic interactionism theory which assumes that people will give respond to elements of their environments base on the subjective meanings they attach to those elements, where the process of meanings created and modified through social interaction involving symbolic communication with other people. The self be a central concept of symbolic interactionists, where the symbols transmitted across the generations through language. Next, we can see that society as the product of shared symbols (Nickerson, 2023).

Only humans are known how to use symbols, using symbols to imagine an afterlife and other realms of reality. On movement the biological evolution of the human creatures, begin the earliest hominids become the modern homo sapiens, humans create various capacities and elements of culture from simple technology to the sophisticated technology we have now, like bipedalism, tool-making, and symbolic thinking for language and communication. Application of language through symbols and the capacity of imagination will differentiate humans from other creatures. Work to create imagination was use symbols as the key instruments. Used symbols, we will put objects of consciousness together to create an entirely imaginary world. The way we can defining aspects of being a human being are we use language, develop symbols, and create imaginations. So, Language, symbols and imagination ability are indeed distinctive human characteristics. (Palmer, 2021) Letters are one kind of symbols which use in human language, a symbol is a stable image or word to mention or give a name to objects of consciousness. Kinds of visions and feelings constantly come and go in our minds, and by linking them to specific words or images, we stabilise them in the process of give meaning symbol.

Learning Optimization

Learning is all efforts made to change circumstances so that they are different from before, whether in knowledge, skills, attitudes or experiences and learning activities which means all activities in the learning process. Things that can make you study harder (Azis, 2023) are:

- 1. Cognitive Motives, namely intrinsic symptoms, or interest in something for individual satisfaction.
- 2. Self-Expression, when someone motivated to learn to fulfil their need to know everything.
- 3. Self-Enhancement is motivation to learn to improve oneself in terms of knowledge, experience, behaviour, or other things to be better than before

Handwriting improves the learning process. Psychological research conducted by Daniel Oppenheimer at the University of California shows that handwritten notes help memory. Oppenheimer's study showed that brain areas associated with memory and comprehension were more involved when students wrote notes use pen on paper (Binus, 2021)

Make notes by hand means making the cognitive system active in summarizing, retelling, organizing, mapping concepts and vocabulary, and remembering, namely active involvement in understanding and interpreting for further reflection. In short, reorganizing and transforming information towards deeper understanding (Roessingh, 2020)

Research suggests that students who record information manually have a better understanding of the material and longer retention of knowledge. Education is one sector where the relevance of handwriting still very much felt. Educators think the same way that the art of handwriting should still taught. Not only referring to cognitive benefits as has widely explained, but also because the ability to write down thoughts manually is a basic skill that every individual must have, as important as literacy and numeracy skills (Zaman, 2023)

Self-Expression by Handwriting

How we communicate our thoughts, emotions, and attitudes, are all part of our unique self-expression, and handwriting or write manual can use as tolls for self-expression (Medwell, 2024) try showing how handwriting is an important way for students to do with their creativity and develop self-expression by research we can do. Writing is not just getting words out of your mind and writing them on paper, but also creativity and self-expression. Because writing is also a way to connect with other people through the stories and ideas created. Handwrote was one of the oldest forms of human expression. In previous civilizations, writing was an exclusive activity, valued, and only conducted by important people. Handwriting has an exclusive style that cannot replicated by digital typefaces, despite their aesthetic elements. Everyone has a unique handwriting style, reflecting their unique character and personality. A letter handwrote provides a delicate touch that cannot matched, in meaning, by an email or text message digital (Zaman, 2023).

RESEARCH METHOD

This article was the result of qualitative research by observation and interview to the students from three collages in Jakarta, complete with literature study in digital way, searching and browsing in internet, to get source of data from open journals and experts opinion from books of theory, where data from journals online published after 2020, local and global publisher. Observation and interview conducted for two months in November-December 2023. The interview conducted to twenty-five of students from, TAU, UPJ and UPI YAI Jakarta. Processed the data and make analysis conducted in three stages, according to Miles & Huberman model (Sugiyono, 2018), starting with data reduction, and continue with data analysis, and last presenting data analysis conclusions using diagrams or tables. We also use quantitative data for result in percent. Data validity use source triangulations by compare the opinions from previous research got by searching and learned through literature study.

Table 1. The Result of Interview and Observation

No	Questions	Answers	Answers
1	Do you still carry a notebook when you go to college?	Twenty-three persons, said not anymore	Two persons, said sometimes
2	Do you still take notes if the lecturer explains, how you should take notes?	Fourteen persons, said yes, by typing in gadget (HP, tablet, laptop) Just one person still tries wrote in notebook	Ten persons said no, because they already have the copy of material
3	Why don't you take notes in books anymore?	Twenty-four persons said, because faster typing than writing, also writing was tiring	Five persons, said because their writing is ugly and messy
4	Do you still have a diary, or personal journal? Which handwritten. Why?	One person said yes, because like to expressed herself in her private journal	Twenty-four persons said not anymore
5	Are you still making messages to friends, family, or co-workers with handwritten notes? Why?	One person said sometimes	Twenty-four said not anymore, they make messages by WA
6	Do you still feel the need to take notes by hand? Do you still feel the need to give a message through writing or written letter?	One person said do not know, one person said maybe	Twenty-three persons said not anymore

Source: Field research, 2023

FINDINGS AND DISCUSSION

Based on our observation, we found that almost 100% students observed and interviewed not anymore make notes or take notes during class and lecture, and 56% of students who make notes they do by typing on their laptops or tablets. We also found that students did not bring notebooks anymore to collage. This is interesting phenomenon that we cannot see any more when the students conduct writing activities for their study purposes. They had acknowledged of letters, of course, they can read too, but they just typing on tools for their need in study activities.

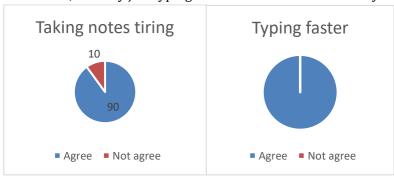


Figure 1. Taking Notes Tiring **Figure 2.** Typing Faster Source: Observation and interview on students 2023

Based on the student's opinion, we can see in Figure 1. And two. that all the students prefer to type the material of study on their gadget (Shellular phone, Tablets, Laptop) based on reason that write for taking notes was tiring and typing was faster. Other opinions are because their writing is bad and messy. This is good or bad for learning process. This is helping or not. It turns out, that may not be a good thing. A substantial body of evidence demonstrates that handwriting stimulates different and more complex brain connections that are essential in encoding current information and forming memories (Psychology Today, 2024). Research shows students who take notes by hand score better on tests than those who type notes. People who write calendar events by hand are more likely to remember them later compared to typed it into a smartphone. One student which we interviewed still try to make notes by writing hand said that handwrote made her feel satisfied and remembering the material taught more easily.

A systematic review in 2022 also found that students who took handwritten notes scored better on quizzes than those who took notes by typing. Used to writing down every little thing you need to remember with a pen is particularly good for the learning process. Because writing scientifically proven to help humans learn and remember things more clearly. The findings show that precisely controlled hand movements while writing lead to spatial and temporal patterns in the brain that promote learning. while a 2017 study by Indiana University, United States, showed that handwriting can link visual and motor skills (Putri, 2024).

Earlier researchers found and said that "Writing by hand helps children to learn a set of symbols more easily and also helps them to remember because there was information in their brain that they already write down." The children who writhed the symbols remembered them much better than the children who typed the symbols did. This simple study showed that ever wrote the symbols by hand helped the children learn them easier (Plebanek, 2022).

This is a complete learning method, combining auditory, visual, and kinetic ways. Taking notes by hand could be one way and effort of studying for better learning. Observation on college students showed that they remembered well if they make notes by hand. Students will know and understand the material better because they already wrote it down by their own hand (James, 2022). Another study have shown that the brain recognizes better the symbol that it learned if students were already wrote it by hand on paper, prove that brain learns the letter that are written by hand faster and smooth, and next we can do it again, learning new letters like math symbols, or other symbols, it will much better to write them by hand (James, 2022).



Figure 3. Self-expression using handwriting.

Source: https://deepublishstore.com/blog/motivasi-belajar-adalah/

Handwriting produces diversity and uniqueness. Study in interpersonal communication, notes or letters handwrote often considered more meaningful and sincere. There is a meditative aspect on the activity of handwritten. People can find peace and relaxation in the process of handwrote, making it a process of therapy. Writing a daily journal, one of example, could be a way to make reflection, contemplating and learn about life, and enjoy every its moment for self-expression. (Zaman, 2023) The science of handwriting analysis has connecting handwriting to personality for thousands of years, according to Medwell (2024) handwriting is an important way for students to tap into their creativity and develop self-expression. study of Curriculum Development about writes your future's own (2017), supports that handwriting is invaluable for developing a multitude of key skills, from increasing children's fine motor skills to developing hand muscles in young children. But the utility that often overlooked in discussion over handwriting and children's development is its impact on creativity and self-expression.

According to Gozali (2024), handwriting can stimulate students' creativity. Handwriting is a tool to initiate creativity by stimulating both sides of the brain, involving physical movement and finding satisfaction in the process of self-expressions. Handwriting gives students the freedom to express ideas without technological limitations, to experience artistic and creative freedom without distracted by the limitations of electronic equipment, by creating a more intimate and personal experience, such as when writing in a diary for example.

The use of handwriting still needed in the world of education because handwriting has quite important positive values. Handwriting can help brain development, strengthening the connection between ideas and physical actions. It is also known that the process of handwriting can help students understand and remember information better than typing (Gozali, 2024).



Figure 4. New Profession Handwritten Services

Technological advances have made it easier to write by typing on a computer keyboard which is faster and more practical. The skill of handwrote is no longer important. It would be a huge loss if the culture of handwrote disappeared from this civilization. However, on the contrary, the decreasing skill of handwrote brings new opportunities to make the ability of handwritten a valuable profession that people will seek, to help complete jobs that require handwriting, such as the art of writing calligraphy for example, or cursive writing.



Figure 5. Skill for developing Fonts

Furthermore, to complete digital writing activities on computer equipment, it is necessary to develop digital fonts on the equipment. Handwriting skills can be the basis for creative digital skills for developing fonts.

CONCLUSIONS

We cannot, do not follow, the movement of technological progress which intended to help and make our lives easier. Traditions and various forms of activities will disappear and may no longer needed, because they have replaced by modern technology, like the utility of handwriting. For learning optimizations, it has proven that the ability to write manually will really help children and students learn fluently, especially in improving memory and helping students focus more on learning.

It is also known that handwriting can be a tool for self-expression and creativity, where the writing process will form uniqueness and personal character. For another utility known that the activity of handwrote also functions as a medium for contemplation. Manual writing skills are increasingly rare, which makes writing skills a valuable skill in the future. Policies and methods needed in learning for preserve handwriting skills.

LIMITATION & FURTHER RESEARCH

This research only explains the advantages that can still obtained from handwriting skills and the need for handwriting to maintained in this digital era.

REFERENCES

Azis, Y.A. (2023). 3 Jenis Motivasi Belajar dan Cara Meningkatkan. In https://deepublishstore.com/blog/motivasi-belajar-adalah.

Binus. (2021). Menulis vs Mengetik. *Https://Binus.Ac.Id/Knowledge/2021/12/Menulis-vs-Mengetik-Mana-Yang-Lebih-Baik/*.

Gozali, M. (2024). Keberlanjutan tulisan tangan dalam dunia pendidikan Indonesia di Era digital. *Https://Www.Kompasana.Com/Mohamad02374/659b7999de948f7190518ae2/*.

James, K.H. (2022). Why Handwriting is Good for Your Brain. *Kids.Frontiersin. Org*, *10*(623953), 1–5.

MacKenzie, B. (2019). How to teach handwriting - and why it matters. In https://www.edutopia.org/article/how-to-teach-handwriting-and-why-it-matters.

Medwell, J. (2024). Handwriting your way to self-expression. In https://www.teachingtimes.com/selfexpressionhandwriting/.

Medwell, J. (2024). Self-Expression Handwriting. In https://www.teachingtimes.com/selfexpressionhandwriting/.

Mueller, P. A. (2022). Why Handwriting is Good for Your Brain. Kids. Frontiers in. Org, 10(623953),

- 1-5.
- Nelson, L. D. (1998). Herbert Blumer's Symbolic Interactionism. University of Colorado Boulder.
- Nickerson, C. (2023). Symbolic Interactionism Theory & Examples. *Https://Www.Simplypsychology.Org/Symbolic-Interactionsm-Theory.Html*.
- Palmer, D.A. (2021). Symbolic Understanding. It's what makes us human. *The New Mindscape. Https://Medium.Com/the-New-Mindscape/Symbolic-Understanding-53ac231960ff.*
- Plebanek, K. H. J. (2022). Why Handwriting is Good for Your Brain. *Kids.Frontiersin. Org*, 10(623953), 1–5.
- Psychology Today. (2024). Why writing by hand is better for your brain. In https://www.psychologytoday.com/us/blog/evidence-based-living/202402/writing-by-hand-is-good-for-your-brain
- Putri, D. L. & I. E. P. (2024). Studi ungkap menulis dengan tangan tingkatkan kemampuan otak dibanding mengetik. *Https://Www.Kompas.Com/Tren/Read/2024/02/09/083000465/Studi-Ungkap-Menulis-Dengan-Tangan-Tingkatkan-Kemampuan-Otak-Dibanding-Mengetik*.
- Roessingh, H. (2020, September 17). Keunggulan menulis dengan tangan. Https://Www.Bbc.Com/Indonesia/Cunia-54187097.
- Septia, N. (2023). Tahapan Menulis anak Usia dini. *Https://Www.Orami.Co.Id/Magazine/Tahapan-Menulis-Anak-Usia-Dini*.
- Sugiyono. (2018). Metode penelitian kuantitatif, kualitatif, dan R&D. Alfabeta.
- Yutig, J. (2023, October 19). Newsome signs law requiring cursive handwriting to taught in California schools. *Https://Www.Cbs8.Com/Article/News/Local/California/Newsom-Signs-Bill-Requiring-Cursive-in-Schools/509-7d02711b*.
- Zaman, S. (2023). Menulis Tangan, Keterampilan Dasar atau Relik Masa Lalu? *Https://Www.Kompasiana.Com/Syahiduzzaman5860/*.