Needs Analysis Of Scientific Article Writing Training For English Teachers: A Mixed Method

Dewi Wardah Mazidatur Rohmah[1], Muhammad Dhika Arif Rizqon[2], Nuraziza Aliah[3], Sitti Jamilah[4], Siti Hadianti[5]

[1,3,4,5] Universitas Terbuka

[2] Universitas Islam Negeri Sunan Ampel Surabaya

Email : ewi.rohmah@ecampus.ut.ac.id [1], dhikaibi@gmail.com [2], nurazizaaliah@ecampus.ut.ac.id [3], sittijamilah@ecampus.ut.ac.id [4], sitihadianti@ecampus.ut.ac.id [5]

ARTICLE INFO

ABSTRACT

Writing and publishing scientific papers is something that is not only important for researchers, but also for teachers who teach in junior high to high school related to the need to increase teacher professionalism. Therefore, this study aims to analyze the need for training in the ability to write scientific articles in English teachers. This research employs mixed methods whereby quantitative data analysis will be supported by qualitative analysis. Purposive random sampling was used in the selection of research respondents which involved 30 teachers as a sample of a total of 150 English teacher population. This analysis was carried out based on the factors that can affect the difficulty of the process of writing scientific papers including the writing environment; obstacles caused by the topic of writing; the author's motivation; and the processes, knowledge, and skills involved in writing. The results of this study are expected to be able to become a reference in developing writing training, especially for English teachers and can be an evaluation for teachers about the actions that must be taken to develop the ability to write scientific pap

Correspondence Author :

Dewi Wardah Mazidatur Rohmah

Universitas Terbuka

Email: ewi.rohmah@ecampus.ut.ac.id

INTRODUCTION

A. Background

The development of 21st-century education and the rise of online learning has created many new problems in the world of education. Professional teachers are needed in solving various problems that arise in class, which have never been faced before. Teacher professionalism itself has been regulated in Ministerial Regulation Number 74 of 2008 concerning Teachers, based on the Law of the Republic of Indonesia Number 14 of 2005 concerning Teachers and Lecturers. The Ministerial Regulation states that teachers are required to have academic qualifications, competencies, educator certificates, be physically and mentally healthy, and can comprehend as well as carry national education goals. One way to be able to analyze problems and design

solutions scientifically is that teachers must be active in scientific forums, including writing scientific papers. Although this policy is considered very heavy for teachers to fulfill, experts claim that scientific writing is an academic responsibility. For example, Lamanauskas (2019) refers to scientific writing as a responsible academic activity. This work will help researchers to improve individual performance.

However, it cannot be denied that the productivity of scientific writing among teachers in Indonesia is still very low. The Indonesian Ministry of National Education records that no more than 1% of teachers can write (Nugroho, 2011). Similar conditions were described by Kim et al. (2019) in other parts of the world on this issue. They highlight the importance of a deep understanding on the analysis of the causes of teacher difficulties in writing. Thus, in-depth research to examine teachers' difficulties in writing scientific papers is urgently needed.

In their research, Valdivia & Martínez (2018) specifically examined teachers' difficulties in writing. They identify problems teachers face around intertextuality and inference-making. To improve the quality of teacher writing, research is needed as a basis for holding training and coaching in writing scientific papers (Rosa & Mujiarto, 2020). English teachers are widely regarded as teachers who should read a lot of scientific papers and be able to write better scientific papers because the majority of scientific articles in the world use English. However, the fact shows that based on the results of a preliminary study conducted for the initial exploration of issues related to the research topic, it shows that English teachers face the same obstacles as other teachers in conducting research and putting research results into a work of scientific writing.

With the advantages of English teachers, that is they already have reading skills for English scientific texts, of course, it will be easier to train English teachers in writing scientific papers because many references to write scientific papers for journal publication refer to the writing styles of researchers who have good international reputations which is written in English. English teachers who have good scientific analysis and writing skills are expected to be able to inspire teachers of other subjects at their school to have the same ability and be interested in writing scientific papers.

Most teachers in fact, already have material for writing scientific articles, which is taken from the results of Classroom Action Research (PTK) conducted by teachers. However, it needs further investigation on why the number of teachers' scientific writing is still very small. Writing training has also been carried out a lot, but there needs to be a clear foundation on what problems

teachers face so that the writing training conducted can answer the obstacles faced by teachers. Therefore, this study aims to research the needs analysis for scientific article writing training for English teachers and is expected to have literature contribution to complete the identification of teachers' difficulties in writing scientific papers, which can be used as a basis for developing the necessary practical policies.

B. Research Problem

The formulation of the problems in this research is as follow:

    a. What obstacles do teachers face in determining writing topics?

    b. How does the writing environment affect the teacher's writing ability?

    c. How does the writer's motivation affect the teacher's writing ability?

    d. How do the processes, knowledge, and skills involved in writing affect teachers' writing abilities?

LITERATURE REVIEW

Currently, students' academic tendencies show an increase in pressure, feelings of being overwhelmed, and stress levels (Bennett, 2018). Meanwhile, the quality of teaching and student learning outcomes are also determined by the availability of professional teaching staff (Barry, Pendergast, & Main, 2020; Tahira & Haider, 2019). The demands for teacher professionalism are also in line the quality of teacher that must answer the demands of the 21st century learning (Kim, Raza & Seidman, 2019; Juandi, et.al, 2021). This makes it increasingly important to develop 21st-century professional skills for teachers to support student academic success and solve problems encountered in class, especially with the increasing prevalence of online learning amid the Covid-19 pandemic (Williams-Britton, 2021; Nurjanah, Latif, Yuliardi, & Tamur, 2020; Haviz, Maris, Adripen, Lufri, David, & Fudholi, 2020; Tamur et.al, 2020). Therefore, the teaching profession must continue to develop into a dignified profession and serve as the spearhead for high quality education.

A. Scientific Writing

Scientific writing is work that contains and examines a particular problem using scientific principles. Scientific work is designed to help professionals, including teachers, write about how to work in the academic field clearly and effectively (Alley, 2018; Blackwell & Martin, 2011; Thomas, 2021). Here, it is emphasized that scientific writing can help teachers express and

communicate their ideas to other academics in similar communities. Such an atmosphere will develop the teacher's skills, as well as support teaching abilities and communication patterns to students.

Scientific articles from teachers' works are important in the development of the teaching profession. Scientific work is important for scientists because almost all over the world, most journals are written in English or non-English (Karimnia, 2013). A scientific article is a factual (non-fiction) essay about a problem to be published in a journal, magazine, or bulletin to convey ideas and facts to convince, educate, and offer solutions to a problem (Komara, 2017). Writing scientific articles can come from the results of research or theoretical studies by conducting in-depth analysis.

Writing skills require the ability to understand and analyze in depth a topic or phenomenon that becomes a review of writing. These abilities are needed in professional career development. The ability to understand, synthesize, evaluate, and also make cases is an increasingly important career development skill for all disciplines (Gilinsky, et al., 2016). Writing is a form of professional development. Publicize productivity requirements that govern hiring and promotion decisions and build successful professional careers (Ortinau, 2011).

B. Skills and Difficulties in Writing

To adequately understand writing development, it is important to understand what is meant by writing skills. Writing is a goal-directed and cognitively independent activity that requires the skilled management of: (a) the writing environment; (b) obstacles caused by the topic of writing; (c) the writer's motivation, and (d) the processes, knowledge, and skills involved in composing (Zimmerman & Reisemberg, 1997). It is also a social activity that involves implicit or explicit dialogue between writer and reader, which is further shaped by audience, goals, culture, society, and history (Schultz & Fecho, 2000). For example, written discourse differs greatly among communities of friends who share ideas via e-mail versus texts written by researchers for other researchers (Nystrand, 2006).

Given its complexity, it is not surprising that writing development is not fully understood. Today, two basic approaches to conceptualizing writing have dominated much of the discussion about writing development. One view focuses largely on the role of cognition and motivation in writing (Hayes, 1996). Others concentrate on how context (e.g, social, historical, political, and institutional) shapes the development of writing (Russell, 1997). While scholars often align

themselves with one viewpoint or another, we believe that the canvas of developmental writing will never be complete until rapprochement is achieved. Each viewpoint clearly addresses different aspects of writing and writing development, but neither is sufficient because the cognitive/motivational approach pays relatively little attention to context, and the contextual view does not sufficiently address how individual factors shape writing development.

The motivation of academics to write, as has been researched, has not been fully researched, perhaps because it is assumed that, in the current climate, having to publish will be sufficient motivation. This assumption ignores the difficulties academics face in prioritizing writing (McGrail, Rickard, and Jones, 2006). As with many aspects of academic writing, there has been little research to test this assumption (Blaxter, Hughes, and Tight, 1998), and, since motivation tends to be a factor in achievement, it is worth considering.

To determine what problems an English teacher might face in writing scientific articles, based on the studies above, the problem analysis in this study is categorized as follows:

No	Category	Theory reference
1	writing environment	Zimmerman & Reisemberg, 1997
2	constraints caused by the topic of writing	Zimmerman & Reisemberg, 1997
3	author's motivation	McGrail, Rickard, dan Jones, 2006
4	processes, knowledge, and skills involved in writing	Zimmerman & Reisemberg, 1997

Table 1: Categories of Difficulties in Writing Scientific Papers

RESEARCH METHODS

This study used a mixed qualitative and quantitative approach focused on a needs analysis of what kind of writing scientific paper training is most needed by teachers. The use of this research approach is based on the idea of Creswell (2012) that mixed methods research can combine qualitative and quantitative data analysis in research. Then mixed methods can describe in depth not only the conditions in the field to be compared with the actual conditions but also in general the results of the analysis will complement each other.

A. Research Sample

Respondents in this study were selected through *random sampling* consisting of 150 junior and senior high school teachers in the Lamongan area. In detail, this number is divided into 96 female teachers and 54 male teachers.

B. Data Collection

The research data is in the form of quantitative and qualitative data collected through questionnaires, interviews, and documentation. Quantitative data was taken through a closed online questionnaire using Google Forms. This questionnaire was distributed via a special *WhatsApp* group created by researchers for research purposes. The questionnaire used in this study refers to the table of factors that influence writing motivation taken from the research of Bruning & Horn (2000).

On the other hand, qualitative data was collected through interviews and documentation with selected teachers as samples. Interviews were conducted for 15-20 minutes face to face and over the phone, and recorded. The total number of teachers interviewed was 32 people. Some of the criteria used as a condition for determining respondents are a minimum of 5 years of teaching experience, having a bachelor's degree in English (literature, education, and/or applied linguistics), and a maximum age of 40 years. On the other hand, the documentation contains examples writing of scientific papers that have been made by the respondent.

C. Data Analysis

The process of data analysis applies the *sequential explanatory* design from Creswell (2012) starting with quantitative analysis first and then reinforced by analysis of qualitative data until it is finally interpreted. First, quantitative data analysis uses descriptive statistical analysis (figure 1). The sub-factors selected for use in the questionnaire have gone through the process of testing the validity of the items using Bivariate Pearson correlation (Pearson Moment Product). Next, a reliability test was performed using Cronbach's Alpha. The results of the validity and reliability tests ultimately determine the number of items used in the questionnaire. There are 23 items used in the questionnaire which represent four factors that influence teachers' difficulties in writing scientific papers.

Explanatory Sequential Design

Quantitative Data Collection and Analysis → Follow up with → Qualitative Data Collection and Analysis → Interpretation
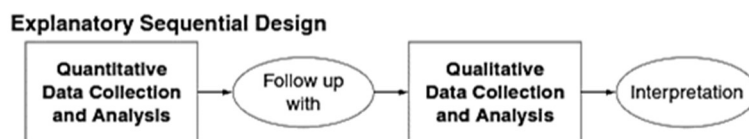
Figure 3.1: Data Analysis in mixed meds (Creswell, 2012)

Second, the qualitative data from the interview transcripts were analyzed according to the theme which was developed inductively through familiarization and reduction processes. The

triangulation process in qualitative data analysis was carried out using three methods, namely *member checks, inter-raters*, and *follow-up data*. First, member checks during the interview were conducted to confirm the consistency of the respondents' answers. Second, theme analysis was carried out by 2 people, namely researchers and research assistant to reduce the element of responsiveness in theme development. Third, the information and statements of respondents regarding the results of their scientific work will be strengthened by examples of documents such as PTK made by teachers.

Finally, the results of the quantitative analysis which includes general findings will be discussed and complemented in more detail by the results of the qualitative analysis. The presentation of quantitative and qualitative findings is described in a balanced manner, although the quantitative findings appear simpler because they are presented in graphical form, they can also be described in detail with descriptions.

RESEARCH RESULT

In general, difficulties in writing scientific papers are divided into three categories, namely trying to write on different topics, being free to choose writing topics, and getting topic recommendations.

a. Constraints Caused by the Topic of Writing

Out of the three categories of difficulties in writing scientific papers, being free to choose writing topics was the most important obstacle for respondents, while getting recommendations for choosing topics was ranked second and trying to write different topics was ranked third. This finding seems interesting because freedom in choosing writing topics is not expected to be a problem but instead becomes the most serious problem.
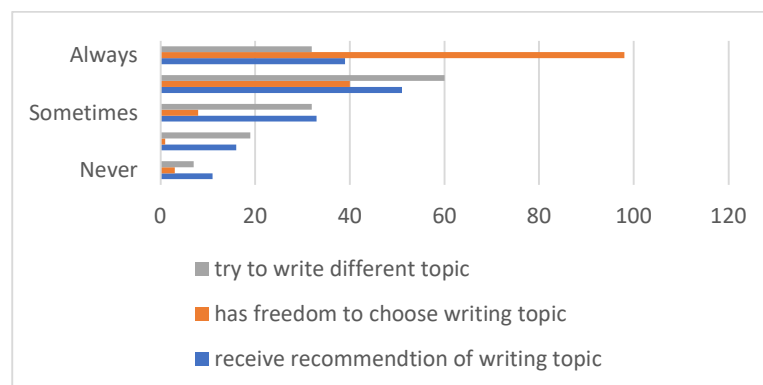

Figure 4.1 Writing Constraints Diagram

From the results of the interviews, the respondents who have freedom in choosing writing topics as the main obstacle admitted that this made it difficult for them to narrow down and/or determine topic choices. They claimed to have attended a workshop on writing scientific papers. During the training, the presenters also provided several topic ideas that could be used in writing scientific papers; especially classroom action research (CAR) or known as PTK in Indonesian. However, this makes them even more confused because the choices are so wide that they seem to be 'lost' in the 'flood of new information'.

"yeah. At first, I thought it would be easy to choose a topic, especially since I've also read PTK made by friends... but the more I came here, especially after taking part in a writing workshop yesterday, I got even more confused. How come there are so many (topics) that can be researched.. I never thought that there are topics other than exam results could be researched.. for example, behaviour in queuing, working in groups, etc." (Mr ER, junior high school teacher)

Meanwhile, three high school teachers named Mrs JL, Mrs EL, and Mr RH also felt the same way, namely 'a flood of information'. In fact, they had several times felt disappointed because they had 'chosen the wrong topic'. Those who initially also had difficulty choosing and determining topics, then wrote scientific papers, but still after writing, they still experienced regrets.

Yes.. that.. it gets even more confusing when you finish training... the knowledge increases.. the confusion increases.. hahaha..

(Mr RH, high school teacher)

I don't know, it's weird, after returning from training I should have been more diligent in writing or knowing more... but this is getting 'lost' (lost).. I even regretted collecting PTK from others, how come theirs is so good (the topic).. how come you can think like that..

(Mrs. JL, high school teacher)

It's a little confusing for me.. because choosing a writing topic is as if I'm shopping at a supermarket.. want to choose this one, how come another brand is on sale, I already want to take it but a salesperson is offering the new product, so yeah.. how about yes.. maybe the more choices, the longer it takes to choose, the more tempted, the more confused, then finally buy it.. but after coming home, there is still a feeling that it doesn't fit..

(Miss EL, high school teacher)

The obstacles experienced by the three high school teachers occurred at the stages before writing and after writing. This finding confirms Schwartz's theory of *the paradox of choice* (2004), which explains that diversity of choices can lead humans to dissatisfaction with the expectations of their choices. This is also supported by feelings of jealousy or the notion that they will tend to be more satisfied if they choose a choice they don't take. In Indonesian literature a similar concept says that the *grass is always greener on the other side.* This feeling of dissatisfaction can become a recurring problem every time the teacher will start choosing a new writing topic again.

The acknowledgement of junior high school teachers is not much different from the acknowledgement of high school teachers that sorting and choosing is not an easy thing. This is also increasingly difficult if the need to ask questions or discuss topics related to topic selection cannot be met because other fellow teachers may not necessarily have the same motivation to write scientific papers.

"Choosing a topic is difficult for me because I don't know where to start. The teacher friends here are not really interested in writing, there are no discussion partners if I am confused about finding a writing topic…"

(Mr BY, junior high school teacher)

"I've been looking for many topics that seem interesting, but I'm also confused about which one to choose. I'm better in writing in the form of PTK, so mostly I just write PTK…" (Mrs CY, high school teacher)

Difficulty in choosing a topic is a natural and common thing experienced by writers. Brittain (2019) found that many students when they were assigned to write, felt a lack of ideas, or felt that their ideas were not good enough to write about. This applies to almost all writers, including teachers who were respondents in this study. The constraints faced by teachers in choosing or determining topics certainly need to be accommodated, especially in providing knowledge about what topics might be raised, how to start choosing topics and how to brainstorm research topics. The ability to choose topics independently is an important skill for a writer, in this case, applies to teachers who will write scientific papers. Research conducted by Dickinson (2014) shows that papers produced on topics that the authors choose independently shows better results than texts written based on the topics given by the instructor.

One of the best ways to carry out the topic selection process has been described by Brittain (2019) in his writings. Brittain (2019) states that the *Pre-writing* stage (preparation for writing) (for example, brainstorming, clustering, and free writing) helps students develop their thinking skills and confidence in generating ideas. *Pre-writing* that is done collaboratively can also be

applied to broaden the ideas for students (writers) because they can learn from the experiences and knowledge of their classmates. So, writing training certainly needs to include steps and methods that can help teachers determine scientific writing topics more effectively and more precisely.

The obstacle in trying to write on different topics, as the second rank, is also influenced by minor factors such as the desire to get praise from colleagues and the saturation of topics that have been written a lot.

"I used to study at a state campus in Surabaya, and I am also the best graduate, cum laude. I just make PTK with the same title that's all. What will my friends say if they find out? Oh, you're a cum laude graduate, you can only make PTK. What's the difference between graduates who don't cum laude? I've been teased like that before"

(Mrs. AD, junior high school teacher)

"To be honest, I'm bored myself (with such a topic), but that's what he (my colleague) said is the easiest, later if I choose a difficult one (topic), it won't be completed, even though the deadline for paper submission is far from closer, because I still need to do corrections for PTK. So, I choose PTK again and again"

(Mrs. AL, junior high school teacher)

When viewed from the perspective of educational psychology, the factors of constraints in writing on different topics lead to the limited knowledge of the respondents. This limitation can be overcome by providing training or mentored writing with the instructor for several days. Following Vygotsky's argument regarding ZPD that learners need help from more skilled parties to be able to broaden their knowledge or improve their expertise (Harland, 2003).

Finally, getting recommendations for topic choices is the lightest obstacle. Most who choose this category admit that they tend to get research topic suggestions from instructors or more experienced friends. Then, the topics were used together so that many of them had similar topics but differed in subject and research location.

"After the training, usually one of us takes the initiative to ask the training instructor for writing guidance, but this is already outside the training program, right... then, because other friends know, in the end, they join in too, they say if you write alone you won't be enthusiastic. So we are guided by the instructors in group, we are also jointly paying for the costs of this independent training, it's better because the more people who participate, the smaller the contribution"

(Mrs. HD, high school teacher)

From the confessions of these teachers, the motivation to write individually has emerged, but that motivation is getting stronger when it is met with motivation from other individuals which eventually becomes collective motivation. This finding is also supported by the results of the research of Mastracci and Adam (2019) where a small similarity in motivation between individuals will become a big, strong motivation when combined with reasons of cultural background or conditions. This collective motivation became the basis for teachers to overcome obstacles in obtaining recommendations for topic selection. As a result, it can be said that this constraint is not significant enough.

b. The Influence of the Writing Environment on Writing Ability

A healthy environment such as the existence of a writing community for teachers can provide discussion experiences about understanding writing goals, writing strategies, and feedback of writing results. There are several categories in the aspects of writing environment that can influence teacher's interest and ability to write scientific papers. This writing environment is important because the social environment of society, which involves the relationship between community members (writers, collaborators, readers, teachers, and mentors), also has important implications for writing activities (Graham, 2018).
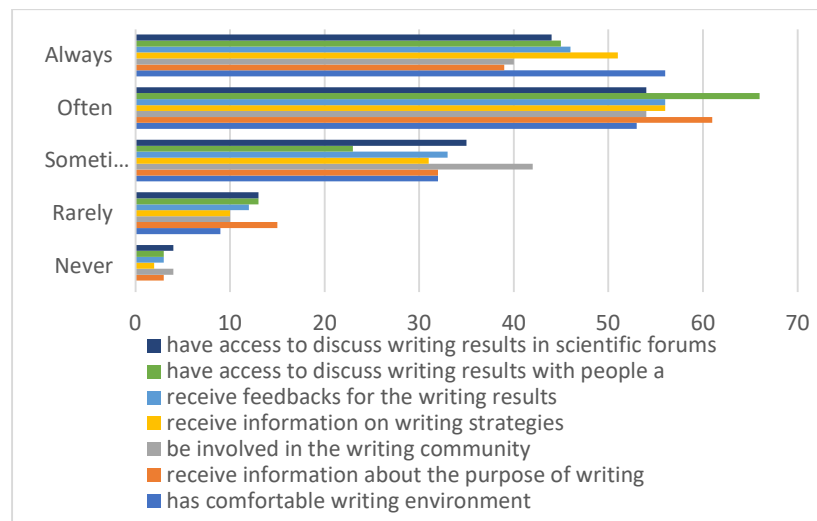

Figure 4.2 Diagram of Factors Related to Writing Environment

The results of the questionnaire show that most respondents have environment that supports them in writing, especially on the four items with the highest scores, namely being able to *discuss writing results in scientific forums, being able to discuss writing results with those closest to them, receive feedbacks about writing, and receiving information on writing strategies.*

In interviews, junior high school teacher respondents tended to choose items *to be able to discuss writing results with those closest to them* and *receive feedbacks about writing* as something they experienced a lot because many of them were alumni of one of the state university in Surabaya who had known each other since college even though they entered the university in different years. *Indeed, there are many and those who are not alumni from there (U university) are less than 10 people here (in this school). So we've known each other since bachelor degree. The lecturers who teach us also still work there so we can go straight to them if we want to ask for opinions regarding our scientific writing results.*

(Mr RI, junior high school teacher)

The existence of similar backgrounds, for the umpteenth time, turns individual feelings into collective feelings (Mastracci and Adam, 2019). Of course, something like this is a privilege that may not be found in other schools or institutions. This privilege needs to be utilized as well as possible to build a good writing environment and climate to improve the writing skills of teachers.

Furthermore, in the items *discussing writing results in scientific forums, obtaining information on writing strategies,* and *being involved in writing communities,* the respondents explained that this also had something to do with their participation in a community service program initiated by several lecturers from universities in Surabaya. The program provides long-term writing training and mentoring, although not as intensive as some of the training programs they have attended before. This program is also part of the research by the lecturers from the university which finally brought teachers to get closer to the world of writing scientific paper.

Initially from the program. At first, I just went along because my friends joined in, but after 2-3 months, my habits increased, reading journals, PTK, discussions in WA groups, etc. Just feel the difference.

(Mrs IN, junior high school teacher)

However, there are also respondents whose community (colleagues) do not yet have the high motivation or are active in wiriting community.

"I would like to have a group or friends who have the same interest in writing as I do, but right now they don't exist…"

(Mr IM, High School Teacher)

Joining a writing community can help someone to grow motivation to write and receive support during the writing process. The writing community is defined by Graham (2018) as a

component of the social/cultural context in which writing occurs and not as something fixed. This could mean that a writing community could be two people interacting via Facebook about writing, or even an organization that facilitates the interaction of writers.

It is in this writing community that a positive writing environment is built. In it, writers can help each other in the process of writing scientific papers (Graham, 2018). This means, in the process of planning a scientific paper writing training, it is also necessary to consider the existence of a post-training follow-up community that allows participants to interact and help each other in the process and execution of their scientific writing.

c. Author's Motivation

Based on the distribution of the questionnaire results, the items ranked first to fourth in the process affecting teachers' writing ability were as follows: a positive view of writing, writing as a career demand, having partners in writing forums to support writing activities, and receiving positive mental support during the writing process. Even though the results obtained are in this order, the difference in the results of the respondents' choices is very thin. This implies that the four items are conditions that have been and are being felt consciously by the respondents.

From writing, I have learned to be more patient, I can't rush because being forced to write (ideas) also won't produce results… we learn and are taught that writing is a light routine like snacks, simple but has a positive impact

(Mr HN, High School Teacher)

At the beginning of the training, my friends', and my perspective on writing getting breakdown, destroyed, reversed, and transformed. It has become far different from what I had so far understood. I used to think that writing was a serious activity, looking for inspiration, heavy, and had to be good and beautiful. But there, we were taught that writing is freedom of expression, whatever writing you think about, it's ok. If I'm not mistaken, it's called freewriting. Writing also doesn't have to be good, it's good that it can follow feedbacks and continue with revision, but the important thing is that the idea has come out, and the anxiety or emotions have come out too so you can feel relieved… so finally it's easier for me to write, especially to start writing activities

(Mrs. DN, High School Teacher)

At first glance, a number of small elements in internal motivation (positive outlook) and external motivation (supportive colleagues in the writing community, career demands, and mental support during the writing process) become triggers for improving writing skills.
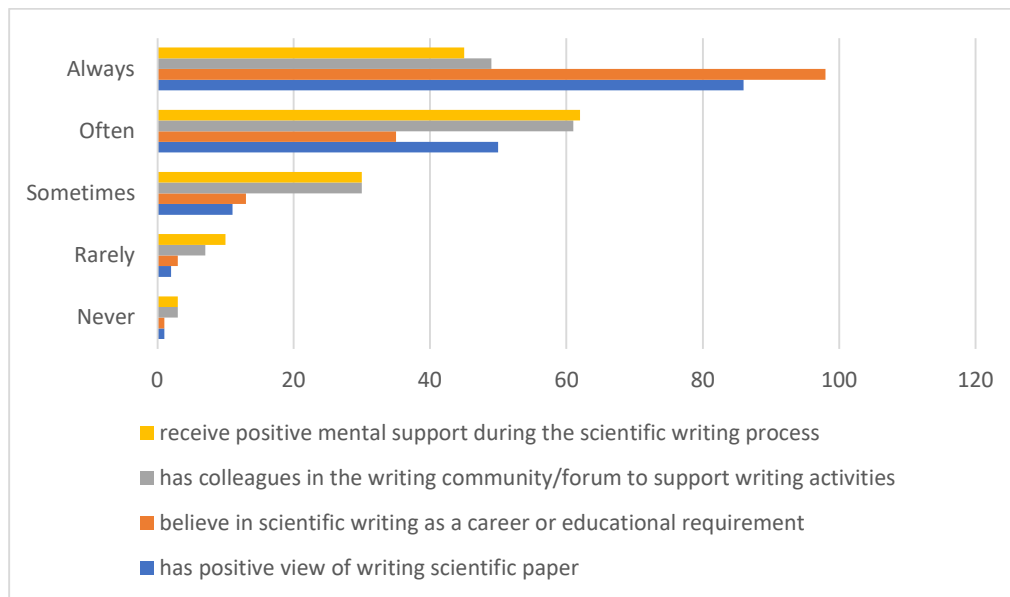

Figure 4.3 Writing Motivation Diagram

This finding reinforces the results of Hwang's research (2010) that *freewriting* can be a technique that changes negative perceptions or misperceptions of writing activities into more positive perceptions. Here one can see the importance of perception which is the critical point for starting a step or to make doing something that feels heavy become lighter. Conceptually, perception is also often used as a substitute for the term opinion or assumption in several other studies (e.g, Moskowitz and Dewaele, 2019; Wijaya, 2022).

At the same time, findings related to writing motivation as a career or educational demand are also the same as those of Lohbeck and Frenzel (2022) stated. It is where motivation related to education does have a high influence, although not the most important in driving or initiating an act. This shows that respondents have a very strong *sense* of identity as professional teachers who not only work but also serve in the world of education.

d. The Process, Knowledge, and Skills Involved In Writing

The revision process and ease of access to credible writing sources are the two most influential factors in developing respondents' writing abilities. When viewed in more depth, the selection of these two factors comes from a long process and real experience felt by the respondents.
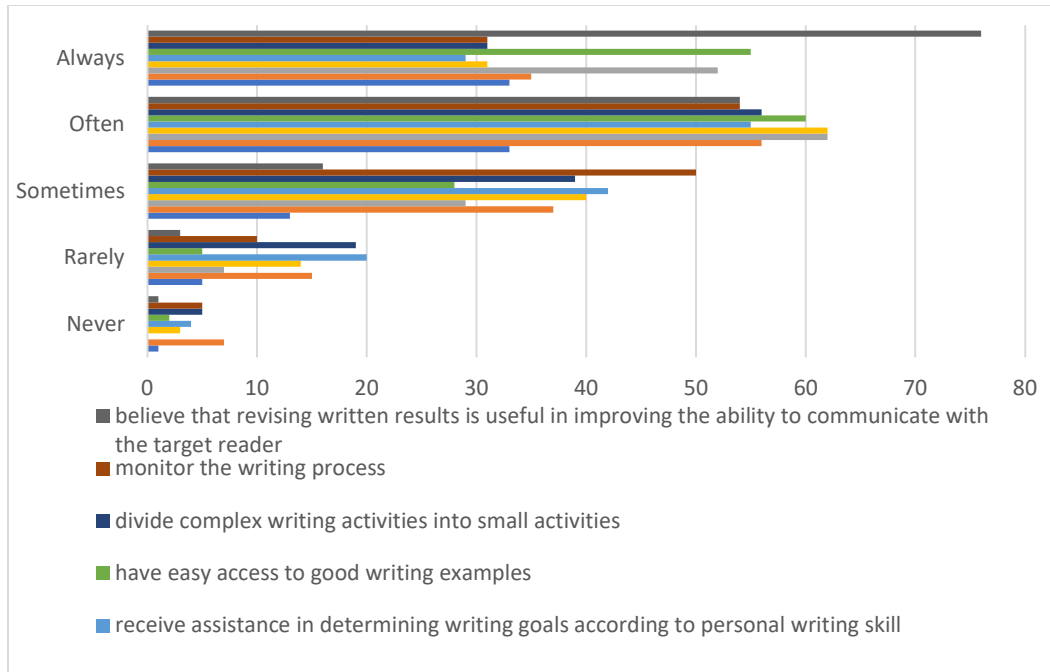
Figure 4.4 Diagram of Process, Knowledge, and Writing Skills

First, the revision process was an unpleasant experience for them. Respondents thought that the revision process indicated that their writing was of poor quality. This makes them embarrassed to the point of being afraid to write. In other words, for them, good writing is the writing result that gets minimum revision. They want to write very carefully, with only slight mistakes or no errors at all, so that the writing they make doesn't need change because they have tried to be as creative as possible in finding inspiration, reading books, and choosing the right words even before writing.

Yes, It's already difficult to write, but I'm told to replace it, doesn't it feel like our writing, our words are in vain? It's like when I have finished putting on make up and wearing a dress that takes me long to decide to wear, then my husband tells me to change into another dress and removes my make-up. Yes, it's annoying.. but it's different now, I already understand what revision means. It turns out like the make-up doesn't match and needs to be matched, maybe the lipstick colour isn't light enough, or the dress colour isn't dark enough..so it's better to redo it...
(Mrs JL, Highschool Teacher)
It's true, maybe I used to be too idealistic or a perfectionist, I wanted one shoot one goal, hahaha. But it turned out to be impossible because they also still had to revise when they wrote, even though in my opinion their (training presenters') writing was perfect, even professor's writing also still

had revisions when need to be published to scientific journals. Revision is common, very common, and at some point, it's mandatory.

(Mr RH, Highschool Teacher)

Second, the ease of access and the availability of various examples of quilified scientific articles also made the respondents more enthusiastic about writing. The existence of this access has not been provided for a long time by the Ministry of Research, Technology and Higher Education and/or the Ministry of Education and Culture, it has only been around for less than 10 years. Through the government program, several new regulations have resulted in the ease of access of many new scientific journals that are accredited nationally and internationally. This is very different from the experience of writing a thesis when the respondents were still in college. They don't know anything, starting from what scientific articles are, where to look for them, what is the qualifications, what journals are, and so on. They depend heavily on thesis in the campus library as the main source of reference for thesis writing.

Hmmm, it used to be complicated, it was very difficult, I wrote my thesis years ago. In the past, I just went to the library, looked for similar thesis as inspiration, and then photocopy them if I don't have time to read them on campus because a thesis cannot be borrowed to take home. Now it's good, I just need to online access to the journals in Sinta.

(Miss IT, Highschool Teacher)

It's so different, back then it seemed hard to find examples. Even though the internet already existed, I often went to internet cafes in the old days only to look for movies or have fun, not to study. Fortunately, at the writing training, we were taught how to look for good article journals that are free and credible. We were taught to differentiate between good and bad writing. After that, I realized Oooo.. good writing is like this anyway, the story is in order, the structure is clear and neat, and it's definitely easier to understand because it has gone through the revision process several times.

(Mrs. DN, Highschool Teacher)

The first important finding, assumptions about the revision process, further complements the findings of previous research where a paradigm shift or negative assumptions originating from misconceptions about the revision process will become a strong positive motivation when the paradigm can be destroyed and rebuilt (Cotos, Huffman, and Link, 2020). Misconceptions about the revision process are common things that are often experienced by novice writers to educators.

However, this is not an obstacle if the writer has an open desire to learn new things (Singh and Panigrahi, 2018), because knowledge in the social sciences and humanities will always change.

The second finding, easy access to qualified writing, is also not much different from what is found by Saputra (2020). Sinta, as a collection of nationally accredited scientific journals, has had a very significant impact on the productivity of scientific writings in Indonesia in the last half-decade. Of course, Sinta does not only belong to experienced writers or researchers but must also be used optimally by students and teachers as novice writers.

CONCLUSIONS AND SUGGESTIONS

Conclusion

This study aims to explore the need to write scientific articles for English teachers. From the various kinds of findings in this research, the need to write scientific articles is not only a 'privilege' that is owned by lecturers at higher education institutions but also by teachers at secondary schools.

The growing awareness of respondents about the need for and benefits of writing for them, also supported by the role of literacy activists within the teachers' environment, seems to be insufficient to meet the needs and improve the ability to write scientific articles for teachers. The main reason for the delay in improving writing skills is the freedom to choose topics which results in confusion. Therefore, this problem emerged as the main reason for the delay in improving writing skills.

Suggestion

This study has several limitations in terms of the number and diversity of respondents (English teachers) in this study. For future studies, the authors hope that there will be replication or modification of this study using a larger number of respondents and a more diverse demographic variation (elementary teachers, social studies teachers, science teachers, etc.) of teachers in different fields and levels, so the research result can be documented and discussed together by the policy makers related to education and teachers' professional development. Furthermore, of course, there is also a need for follow-up research on the results of this study, especially to experiment scientific writing training programs for teachers that are carried out in long term

REFERENCES

Alley, M. (2018). The Craft of Scientific Writing (Fourth). Springer. https://doi.org/10.1007/978-1-4419-8288-9

Barry, D., Pendergast, D., & Main, K. (2020). Teacher perspectives on the use of the Australian professional standards for teachers as part of their evaluation process. Australian Journal of Teacher Education, 45(8), 1-22. https://doi.org/10.14221/ajte.2020v45n8

Bennett, H. (2018). Engaging the 2 st -Century student: Beyond the lecture. International Journal of Kinesiology in Higher Education, 2(3), 87-96. https://doi.org/10.1080/24711616.2018.1474083

Blackwell, J., & Martin, J. (2011). Essential steps before writing a paper. In J. Blackwell & J. Martin (Eds.), A Scientific Approach to Scientific Writing (pp. 3-11). Springer. https://doi.org/10.1007/978-1-4419-9788-3

Blaxter, L., Hughes, C. and Tight, M. 1998. Writing on academic careers. Studies in Higher Education, 23(3): 281–95.

Brittain, E. (2019). A Collaborative Activity for Generating Ideas in the Writing Classroom. In *English Teaching Forum* (Vol. 57, No. 1, pp. 32-34). US Department of State. Bureau of Educational and Cultural Affairs, Office of English Language Programs, SA-5, 2200 C Street NW 4th Floor, Washington, DC 20037.

Cotos, E., Huffman, S., & Link, S. (2020). Understanding graduate writers' interaction with and impact of the Research Writing Tutor during revision. *Journal of Writing Research*, *12*(1), 187-232

Daryanto. (2013). Standar kompetensi dan penilaian kinerja guru profesional. Yogyakarta: Gava Media.

Dickinson, P. (2014). The effect of topic-selection control on EFL writing fluency. *Journal of Niigata University of International and Information Studies*, *17*, 15-25.

Gilinsky, A., Forbes, S. L., dan Reed, M. M. 2016. Writing Cases to Advance Wine Business Research and Pedagogy. Wine Economics and Policy, 5, 60-67. http://dx.doi.org/10.1016/j. wep.2016.04.001.

Graham, S. (2018). A revised writer (s)-within-community model of writing. *Educational Psychologist*, *53*(4), 258-279.

Harland, T. (2003). Vygotsky's zone of proximal development and problem-based learning: Linking a theoretical concept with practice through action research. *Teaching in higher education*, *8*(2), 263-272.

Haviz, M., Maris, I. M., Adripen, Lufri, David, & Fudholi, A. (2020). Assessing Pre-Service Teachers' Perception on 21 century Skills in Indonesia. Journal of Turkish Science Education, 17(3), 351-363. https://doi.org/10.36681/tused.2020.32

Hwang, J. A. (2010). A case study of the influence of freewriting on writing fluency and confidence of EFL college-level students. *Second Language Studies, 28*(2), 97-134.

Juandi, D., Kusumah, Y. S., Tamur, M., Perbowo, K. S., Siagian, M. D., Sulastri, R., & Negara, H. R. P. (2021). The effectiveness of dynamic geometry software applications in learning

mathematics: A meta-analysis study. International Journal Interactive Mobile Technologies, 15(02), 18–37. https://doi.org/10.3991/ijim.v15i02.18853

Karimnia, A. 2013. Writing Research Articles in ENGLISH: Insights from Iranian University Teachers' of TEFL. Akdeniz Language Studies Conference 2012, (Online), Procedia - Social and Behavioral Sciences, hlm. 901- 914, (http://www.sciencedirect.com), diakses 13 Januari 2017.

Kim, S., Raza, M., & Seidman, E. (2019). Improving 2 st -century teaching skills: The key to effective 2 -century learners. Research in Comparative & International Education, 14(1), 99–117. https://doi.org/10.1177/1745499919829214

Kim, S., Raza, M., & Seidman, E. (2019). Improving 2 st -century teaching skills: The key to effective 2 -century learners. Research in Comparative & International Education, 14(1), 99–117. https://doi.org/10.1177/1745499919829214

Komara, A. 2017. Menulis Artikel dan Karya Ilmiah, (Online), (http://www.lpmpjateng. go.id/web/index.php/arsip/artikel/174- menulis-artikel-dan-karya-ilmiah), diakses 12 Januari 2017.

Lamanauskas, V. (2019). Scientific article preparation: Title, abstract and keywords. Problems of Education in the 21st Century, 77(4), 456-462.

Lohbeck, A., & Frenzel, A. C. (2022). Latent motivation profiles for choosing teaching as a career: How are they linked to self-concept concerning teaching subjects and emotions during teacher education training. British Journal of Educational Psychology, 92, 37-58.

Mastracci, S., & Adams, I. (2019). Is Emotional Labor Easier in Collectivist or Individualist Cultures? An East–West Comparison. Public Personnel Management, 48(3), 325-344.

McGrail, R. M., Rickard, C. M. and Jones, R. 2006. Publish or perish: Asystematic review of interventions to increase academic publication rates. Higher Education Research and Development, 25(1): 19–35.

Moskowitz, S., & Dewaele, J.-M. (2019). Is teacher hapiness contagious? A study of the link between perceptions of language teacher happiness and students attitudes. Innovations in Language Learning and Teaching.

Nugroho, Hery.(2011). Cara MudahMenjadi Guru Penulis. Semarang: Dahara Prize.

Ortinau, D. J. 2011. Writing and Publishing Important Scientific Articles: A Reviewer's Perspective. Journal ofBusinessResearch, 64, 150-156. doi:10.1016/j.jbusres.2010.02.002.

Rosa, A. T. R., & Mujiarto, M. (2020). Teacher development potential (Creativity and Innovation) education management in engineering training, coaching and writing works through scientific knowledge intensive knowledge based on web research in the industrial revolution and society. International Journal of Higher Education, 9(4), 161–168. https://doi.org/10.5430/ijhe.v9n4p161

Saputra, A. (2020). Memanfaatkan SINTA (Science And Technology Index) Untuk Publikasi Karya Ilmiah & Strategi Dalam Mencari Dan Memilih Jurnal Nasional Terakreditasi. Media Pustakawan, 27(1), 56-68.

Schwartz, B. (2004). The paradox of choice: Why more is less. New York.

Singh, J., & Panigrahi, P. K. (2018). Accepence of Open Learning Resources: Perspectives of Higher Education Students in India. *The Electronic Journal Information Systems Evaluation, 21*(2), 80-93.

Tahira, M., & Haider, G. (2019). The role of critical thinking in academic writing: an investigation of EFL students' perceptions and writing experiences. International Online Journal of Primary Education, 8(1), 1-30.

Tamur, Maximus, Juandi, D., & Kusumah, Y. S. (2020). The Effectiveness of the Application of Mathematical Software in Indonesia: A Meta-Analysis Study. International Journal of Instruction, 13(4), 867–884. https://doi.org/10.29333/iji.2020.13453a

Thomas, C. G. (2021). Research methodology and scientific writing (Two). Springer. https://doi.org/10.1007/978-3-03064865-7

Valdivia, I. M. Á., & Martínez, M. L. (2018). Improving preservice teachers' scientific argumentative writing through epistemic practices: A learning progression approach. Journal of Education for Teaching, 45(2), 169-185. https://doi.org/10.1080/02607476.2018.1548172

Wijaya, K. F. (2022). Investigating Indonesian novice teachers' perceptions on thier identity construction. *Scholaria: Jurnal Pendidikan dan Kebudayaan, 12*(1), 9-19.

Williams-Britton, S. M. (2021). Teachers' voices in one-to-one technology integration professional development programs (I. Sahin & W. Admidraal, eds.). ISTES Organization.

Zimmerman, B. J., & Risemberg, R. (1997). Caveats and recommendations about self-regulation of writing: A social cognitive rejoinder. Contemporary educational psychology, 22(1), 115-122.