Advocating Personal Learning Environment (PLE) in Scientific Writing: Is Digital Tool More Powerful?

A’thi Fauzani Wisudawati¹, Nur Arifah Drajati², Joko Nurkamto³

¹athiwisudawati27@gmail.com

Abstract

Personal learning environment (PLE) connects the formal and informal learning of the learners by utilizing both digital and non-digital tools. This concept is believed to be able to support the process of learning Scientific Writing because to construct an article is not enough relying on formal learning and a single tool provider. This paper reports the implementation as well as the tools used and impact of getting engaged in PLE for learning Scientific Writing. The research was conducted qualitatively in narrative inquiry analysis while the data was collected through observation, questionnaire and in-depth interview. The participant was a graduate student majoring English Education department having experienced making a scientific journal. The learner admitted that collaborating both digital and non-digital tools is very meaningful, however the use of digital tools apparently more efficient as supported by Reinders (2014) to support different aspects of the learning process. This study is beneficial for ELT classroom, specifically for academic writing class where Scientific Writing is one of mandatory subject being taught by the lecturer. The tools revealed in the finding can be references for EFL learners to be applied in constructing Scientific Writing.

Keywords: Digital Tool, Personal Learning Environment (PLE), Scientific Writing.


1. Introduction

The policy regarding scientific article publication has been implemented in higher education over the world. In Indonesia, this circumstance is decided in a Circular from the Director General of Higher Education (Kemenristekdikti) No 152/E/T/2012 that a bachelor, master and doctorate student must have journal publication. Those issues lead to the circumstance where Scientific Writing is important to be taught. It is undeniable that limited time in the classroom become a border to fulfill the students’ need in learning. Therefore, Personal learning environment (PLE) appears as a solution to bring together tools and resources that help learners control their language-learning process both inside and outside the classroom (Reinders, 2014). Personal Learning Environments and technologies can be a key to support such lifelong learning (García-Peñalvo & Conde, 2015).
PLE is to help not just an individual space constrained by the student, yet additionally a social stage to associate with others so as to trade information and seek after instructive objectives. PLE speaks to a move far from the conventional model of figuring out how to a model which students can utilize on the web and disconnected assets they select and sort out alone. The rise and utilization of Information and Communication Technologies in instructive settings suggest changes in the devices used to educate and learn (García-Peñalvo & Conde, 2015). Individual learning situations (PLE) have developed as a promising better approach to react to the necessities of the information society and speak to a substantive change in the comprehension of the job of ICT in instruction.

In the previous study, Reinders (2014) told that the students record what they realize amid the week, both in class and outside and urged to utilize any device they are now comfortable with. The discoveries demonstrate that few computerized devices which is useful to help English language learning for example, mind mapping, diaries, recordings, sites, shared reports and documents, and so on. Another examination by Ruengkul and Sukavatee (2015) intended to investigate Personal Learning Environment apparatuses for English language learning of Thai EFL college understudies. The finding uncovered that Google and YouTube were the most two as often as possible utilized instruments for tuning in and talking expertise. The most three habitually utilized apparatuses were Google, Facebook, and YouTube separately were useful for perusing and composing ability.

Those previous studies reveal similarities that PLE is able to support English language learning based on its implementation and the tools used. However a research concern to PLE for the importance scientific writing was never conducted before. As we know that learning scientific writing takes much time personally to explore the needs and giving impact to the big contribution of having PLE. From those backgrounds above, the research about Personal Learning Environment (PLE) in Scientific Writing was conducted and the research question was formulated as how is the implementation of PLE in scientific writing?

The term "Personal Learning Environment," in light of its present practice, was first referenced in 2001 out of an unpublished paper by Oleg and Olivier entitled "Deep rooted learning: The requirement for convenient individual learning situations and supporting interoperability benchmarks." PLEs speak to a developing e-learning territory, following its starting points to frameworks, for example, Colloquia, the primary shared learning framework. Despite the fact that there is no agreement on a solitary PLE definition, the definitions found in the writing give some knowledge into the nature and attributes of PLEs (Renon, 2012). PLE is a developing learning idea that enables students to control and deal with their very own learning forms and offers help to set their own learning objectives; deal with their picking up; overseeing both substance and process; and speak with others during the time spent learning and in this way accomplish learning objectives.

The possibility of a Personal Learning Environment depends on the thought that learning is ceaseless thus, it expects to give apparatuses to help this constant learning. In addition, it additionally perceives that students have the chance to sort out their learning procedure and to set their own learning points considering their interests and needs (Nevado, 2016). A Personal Learning Environment (PLE) incorporates the apparatuses, networks, and administrations that comprise individual instructive stages students use to coordinate their own learning and seek after instructive objectives. This speaks to a move far from the customary model of learning, and towards a model where understudies draw
associations from a developing framework of on the web and disconnected assets that they select and sort out. A PLE ought to be comprehended as an idea, a learning domain concentrated on the client and adaptable, which will consolidate every one of the instruments, administrations, suppositions, individuals, assets and exercises that are valuable in the learning procedure (García-Peñalvo and Conde, 2015).

Nevado (2016) highlighted a few viewpoints as alludes to fundamental attributes of PLE. A PLE consolidates all the formal and casual learning of the members in a one of a kind affair. It additionally utilizes informal communities which can associate individuals from better places far and wide. Individual Learning Environment enables the understudies to set their very own learning destinations and gives them the administration of the substance and furthermore of their learning procedure. PLE is the individual system in which the understudies trade data in various ways and with a few computerized devices. Separately, Renon (2012) gave his viewpoint that PLEs are constrained by the student, contain assets that are computerized and different, total assets into one interface, support and encourage deep rooted learning, advance and develop after some time, have the limit with respect to shared and intelligent practice, encourage the improvement of different kinds of learning aptitudes and skill levels under one rooftop, help to associate both formal and casual learning.

PLE is the individual system in which the understudies trade data in various ways and with a few computerized apparatuses (Nevado, 2016). College of Bolton analysts distinguished 77 distinct examples of utilization of PLE devices and composed them into the accompanying eight general classifications: Chat and informing devices; Groupware and network devices; Calendaring, booking and time the executives instruments; News conglomerate devices; Weblogging and individual distributing apparatuses; Social programming devices; Authoring and joint effort devices; and Integration devices.

The significance of PLE considered as presidential for helping to learn writing. Writing is a key component in the arrangement of social substances, establishments and individual personalities in pretty much every space of expert life, and the sciences are no special case. Logical Writing has come to be viewed as socially constitutive of the orders, of individual status and specialist and of information (Hyland and Salager-Meyer, 2008). Scientific Writing is regularly favored as a one of a kind type of contention where the content is only the channel which enables researchers to impart freely existing realities, handing-off straightforwardly recognizable actualities to the world. The name ‘logical’ gives dependability on a technique and glory on its clients, it infers all that is most exactly undeniable about scholastic learning and apparently provides a portrayal of what the common and human universes are really similar to (Hyland and Salager-Meyer, 2008). For those origination, having test to assemble Scientific Writing isn't simple because of looking for of the reality, suitable hypothesis to reinforce the reality, and working together them into a decent development.

2. Method

This research utilized narrative inquiry proposed by Barkhuizen which referenced that the tales as information or as a methods for introducing discoveries dependent on the sociological and mental writing, yet is grounded in distributed observational research inside the field of language educating and learning. Story request is important to inquire about in English language instructing in light of the fact that it comprehends the inward
mental universes of language educators and students and the idea of language instructing and learning as social and instructive action (Barkhuizen, et al. 2014).

Narrative inquiry unites narrating and explore either by utilizing stories as research information or by utilizing narrating as an instrument for information investigation or introduction of discoveries. Story request help to see how language educators and students compose their encounters and characters and speak to them to themselves and to other people.

The participant was a graduate student majoring English Education department. He had experience on making a scientific journal while attending academic writing class. When the observation was conducted in his academic writing subject, the class was both asked to learn conventionally by paying attention to the lecturer and allowed to open up their gadget due to directly explore the guidance by the lecturer. Those circumstances made how personal learning environment keep alive during learning Scientific Writing.

In the initial study, I decided to observe the process of learning Scientific Writing in academic writing class. I noted several activity during the class, what kind of material being taught, what kind of tools or sources to support the students to learn. The second step was asking the learners to fill the questionnaires I've constructed. For this project, I used both close-ended and open-ended questions so as to give the participants the opportunity to respond in their own words, rather than forcing them to choose from fixed responses. At last, to explore the learners’ experience deeper, an in-depth interview was undertaken.

In this narrative study, the major themes are basically discussed in separate sections which they are broken down into subthemes and clarified by extracts from the narratives (Barkhuizen, et al. 2014). The thematic analysis contains several ways to analyze the data including repetition of data reading, coding, and classification of data extracts, and rearrangement under the thematic title. Hence, this study will be analyzed in several theme including non-digital tools application inside and outside the classroom and digitals tools to advocate Personal Learning Environment in scientific writing.

3. Finding and Discussion

There are variety of PLE significances relying upon the learning objectives, needs and qualities of the user. Each Personal Learning Environment contains the computerized instruments and the substance which enables clients to build their insight by sharing data and assets (Nevado, 2016). Additionally, every one of the members have cell phone and PC to get to an advanced board where they learn English, particularly logical composition. They are additionally capable with essential programming applications, for example, Word handling and Internet applications. Furthermore, every one of them feel that the two PCs and advanced sheets are helpful to support logical composition development.

In this research, the researcher study and analyze how students build their own PLE and which are the main tools that constitute it. The construction and reconstruction stages following a natural evolutionary process. Whether being aware of the tools in their own PLE encourages students to acquire new tools. We also wonder if this circumstance helps them to be more aware of their ways to learn and so they can intentionally chose which tools can be useful in their learning process.

3.1 The Tools
3.1.1. Non-digital Tools

*Augmenting Scientific Writing Learning Beyond Classroom through PLE*

Reinders (2014) mentioned that other fundamental aspect for PLE is that its offer casual situations that students themselves make without the assistance of an instructor and use in the full scope of settings that make up a student's life. Thus, PLEs likewise reach out past the quick instructive condition of a course or a school and provide support for long lasting learning. In this study, the learner accentuate that the propensity to contemplate outside the classroom is increasingly powerful. In this case, the participant claimed that he himself was an offline tool that had the biggest contribution to learning because all learning movements began with motivation, desires, desires and strong will from him. PLE allows us to have a big bond with ourselves to then go and connect with other sources and tools.

*I prefer to get something that I get by myself and then confirm to others. If I associate with the academic writing class where I struggle for scientific writing, I tend to seek a lot of information first, then I select according to my needs and then discuss with others. I do not depend on others, but I myself have to go forward because for me the principle of effective learning is active and autonomous learning.*

Nevado (2016) included that in our day by day life we ceaselessly gain from one another, we discover enough data and direction from companions and associates. The preferred standpoint in this sort of casual learning is that they have been in one phase of their learning procedure, in a comparative position to us, a similar learning points or similar premiums. The student learn by disclosing their plans to other people and by taking an interest in exercises in which they can gain from their friends. Moreover, they create abilities in sorting out and arranging learning exercises, working cooperatively with others, giving and getting criticism and assessing to achieve the objectives in this sort of casual learning, the "peers" must be other individuals in a comparative circumstance. In addition, they should not have the job as an educator or a specialist professional, in spite of the fact that they should hold enough understanding to show new substance and thoughts to the next individual.

*Being an independent learner is indeed the root of the PLE engagement with the culprit. But in this case, learning scientific writing cannot be done alone forever. Other parties such as teachers and friends are very influential for the means of exchanging information and increasing knowledge.*

*I have more time to study outside the classroom. Those who helped me a lot to study Scientific Writing outside of class was my friends, especially friends in my working place because they were professional who had passed the master program and also had several journal publications. They became a very helpful source for me to look for journal references to build arguments and discuss whether or not the writing I had made.*

Limitations of offline sources are one of the challenges that must be resolved. The library can be one solution because there are many offline sources that can be utilized. But students admit that there is always a digital solution to non-digital problems. This causes a lack of tendency from using offline sources and tools.
To be honest, I rarely go to the library, because I prefer to learn from printed books and printed journals that I have decided to study before because they are related to the topic of my research. Go to the library makes me confused and sometimes I don't get the sources I am looking for.

A PLE consolidates all the formal and informal learning of the members in a special ordeal. It likewise utilizes informal organizations which can associate individuals from better places the world over. The Network Protocols are likewise vital (shared, web administrations…) to interface various assets and frameworks in a by and by oversaw confined space (Nevado, 2016).

**Learning Scientific Writing in the classroom: Optimizing 2 hours a week allocation**

The significance of PLEs for instructors lies in their capacity to enable students to create self-governance and set them up for deep rooted learning. New advancements are making the production of PLEs less demanding and their utilization increasingly powerful (Reinders, 2014)

*The limited time and learning materials in the class make us really want to optimize what the lecturer gave at that time. It cannot be denied that lecturers are the biggest source when we study in class. Learn to find facts and associate them with many theories given by lecturers. This is also supported by the usual journals we have been studying and then we print and learn from each other with classmates.*

Normally this is the assignment of the instructor, yet numerous educators have explored different avenues regarding including students in the determination and arrangement of assets for learning (Aston, 1993; Benson, 1994). For instance, Dam (1995) requested that students find legitimate materials from outside the school to be utilized in the classroom and oneself access focus. A large number of the exercises that could be named undertakings (Ellis, 2000) could include the creation or sharing of materials by students.

*In addition to lecturers, something that is not less important is discussion with friends. Here the opportunity to learn is very wide open because of our closeness with friends make us want to say and asking as if there are no limits to how we communicate with the lecturer. Having competent friends is very useful because we can exchange information, complete knowledge and support each other.*

3.1.2. Digital Tools

Nevado (2016) PLEs unite devices and assets that assistance students control their language-learning process. These instruments and assets are typically chosen and kept up by students themselves and can be gotten to from a computer or (progressively) from a cell phone. The fundamental piece of a PLE is the individual system in which the understudies trade data in various ways and with a few computerized devices.

The guarantee of Personal Learning Environments could be to stretch out access to instructive innovation to everybody who wishes to arrange their very own learning. PLE incorporates diverse sorts of learning like casual learning, work environment picking up, gaining from home, learning driven by critical thinking and learning inspired by close to home enthusiasm just as learning through commitment in formal instructive projects. The
I use my laptop & smartphone more often to study than going to the library. I think this is far more effective and flexible because I can study anywhere and anytime easily. I just sit down, open the laptop, open the Google scholar, Web journal, Online dictionary and online library. I think everything I need is available on the internet platform.

Google is the web crawler including the world's data, website pages, pictures and recordings. The reasons why undergraduates utilized Google were as follows. Initially, they chose this device since it is prominent and simple to utilize. Besides, Google has been considered as important asset for help autonomous language learning. It contributes students to scan for the data they want using watchwords.

The tool that helped me the most was google scholar because there I could find a lot of works from even the most recent experts. Not only that profile, citation and expert interest are also written in detail there.

Besides that, I also visited the Personal website which is owned by experts such as the personal website Prof. Dornyei, Ken Hyland and also elis rod. From there I learned a lot about the writing style of the experts, how they put forward a theory and build an argument. It must be acknowledged that this is very easy and very time consuming and energy.

The qualities of the PLE configuration can be accomplished utilizing a blend of gadgets (workstations, cell phones and versatile media gadgets), applications (newsreaders, texting, programs and schedules) and administrations (bookmark administrations, weblogs, and wikis). Individual learning situations (PLE) speak to a momentous new advancement in instructive practices through the fuse of Information and Communications Technology (ICT), and a chance to advance the making of colleges without dividers ready to fulfill the needs of the information society (Saz, et al., 2016).

3.3. The Impact

PLEs can prompt noteworthy changes in the role of educator, the students, and here and there the more extensive educational modules (Reinders, 2014). As referenced above, PLEs give students more authority over their realizing, which may upset normal classroom practice. Breen and Littlejohn examine the job of arrangement and contend that the best classes are those that spin around the students, not around the educators or foreordained and static arrangements of substance. PLEs enable students to investigate their needs and to share these with the instructor. The students conceded that getting occupied with PLE open up positive learning openings both outside the classroom and inside the classroom. On the web and disconnected learning stages additionally have their own advantages.

I am increasingly aware that academic writing is not a thing that can be learned in 1 or 2 nights. Academic writing must be continuous. Every time we find...
something new, we will catch up. This makes us realize that we are very small compared to the sciences in this world, many things that I did not know before. Even the experts in this world are very detailed in carrying out their research. An example is Ken Hyland, for the past 10 years I have read his work, where the topic of feedback as one of his skills can be specified to be even more subtle like oral feedback, written feedback, etc. Besides that there are also students, have topics that always innovate to be developed

this learning process requires our self-awareness of academic literacy and that can only be obtained when we read a lot. If we often read, we will increasingly understand the patterns of building arguments in articles made by experts.

When learning scientific writing forced me to meet a lot and read journals. I just found out that there are so many kinds of journals and we have to choose the right guide for our research topic reference and pay attention to who the author, the publisher, the quality of the index, whether it is predatory or not we should be aware and aware of it the intensity of discussing with friends is becoming more frequent for the purpose of learning scientific writing especially with more experienced friends.

The learner’s perspective uncover how PLE improve their awareness along the process of learning scientific writing. As one components of PLE characteristics, the lifelong learning arise explicitly as the impact of it was perceived by the learner.

4. Conclusion

The tangibility that scientific writing is influential matter to promote academician’s capability, competence, and self-satisfaction brings into profound consideration. The attainment of learning can be undertaken both formally inside the classroom and outside the classroom as proposed by the conception of personal learning environment (PLE). As the fact revealed that to study scientific writing inside the classroom is very limited, hence PLE is contemplated as a good solution to help the learners accomplishing their objective of study. The learners conceded that they make use of both digital and non-digital tools, however the tendency of utilizing digital tools are considered as worthier. Google scholar, web journal, and online library became three best digital platforms to find the theory, explore the fact and integrating them into a good construction of scientific writing. Hence, the process in getting engaged in PLE improve the awareness of the informal and continuous learning that brings the opportunity toward the lifelong learning.

References


Circular from the Director General of Higher Education (Kemenristekdikti) No 152/E/T/2012


