SYSTEMATIC LITERATURE REVIEW OF A SCIENTIFIC JOURNAL:
IMPROVING LITERACY IN ONLINE CLASSROOM LEARNING

Eska Perdana Prasetya

English Education Department, Faculty of Teacher Training and Education,
University of Ibn Khaldun Bogor, Indonesia
E-mail: eska@uika-bogor.ac.id

INTRODUCTION

As we all know, starting in March 2020, President of Republic of Indonesia, Jokowi announced the first case of corona in Indonesia. Starting from that announcement, we began to experience the Covid pandemic in Indonesia, many have started to be exposed to this corona virus. Severe acute respiratory syndrome coronavirus (SARS-CoV-2), the first time from Wuhan, China to cause severe acute respiratory syndrome that is widespread globally (Di Gennaro, Pizzol, Marotta, Antunes, Racalbuto, Veronese, & Smith, 2020). The virus spreads rapidly from person to person through respiratory droplets produced when coughing and sneezing from one individual to another and ultimately produces an immune response from the body which consists of a natural and adaptive immune system.

Since Indonesia officially entered the COVID-19 pandemic, all life arrangements have changed completely from offline to online for all areas of life in Indonesia. The initial step of the government to implement Large-Scale Social Restrictions (PSBB), this step is useful for limiting activities in the community to prevent the transmission of the corona virus, this system is arguably a small-scale lockdown.

Likewise in the world of education, starting from the kindergarten level to the college level everything changes from face-to-face learning to online learning. This requires teachers, students and parents to change their views and methods of learning. At first everyone must feel heavy on online learning, the main problems experienced are of course starting from the gadgets and internet quota needed at the time of learning.

There are two main contributing factors in effectiveness online learning in the Covid-19 pandemic is the support capacity of network access
and the ability of devices to access the internet (Hamid, Sentyro, & Hasan, 2020). There are several psychological effects of online learning: Frustration, Fear, Anxiety, Apprehension, Stress and Depression (Dhull & Sakshi, 2017). In learning activity, smartphone is a tool to help students connected to be online (Lekawael, 2017).

In essence, online learning requires two things to support learning, namely an internet connection and gadgets. The connection here can use WIFI or internet quota. However, there are several psychological effects of online learning: Frustration, Fear, Anxiety, Apprehension, Stress and Depression. From the psychological effect, this does not only happen to students, but also to teachers and parents of students.

There are several incidents from several online media which tell about a father who was forced to steal a smartphone for his child to study online, there were even students who committed suicide which was predicted due to pressure in online learning, the pressure could be in the form of a large number of assignments given by the teacher. Online learning as it is today is not only related to the Covid 19 pandemic. However, online learning is closely related to today's digital era, an era that demands the speed of the internet to communicate, search for information, and anything related to globalization. Some things that show how easy it is to live in today's digital era: It is easy to communicate, is mobile and flexible, the internet is more powerful than quota, it's easy to shop, doesn't need to be complicated, cashless, and if you want to be an artist you can do it with YouTube.

What is called literacy? In general, literacy itself is a person's ability and skills in reading, writing, speaking, calculating, as well as solving problems in everyday life. Even UNSECO also provides an understanding of literacy, which is a set of real skills, especially one's cognitive skills in reading and writing which are influenced by competence in the academic field, national context, institutions, cultural values, and experiences.

Literacy is indispensable for the group or community effectively and relates to using reading, writing and calculation (Keefe & Copeland, 2011). It is widely accepted that literacy generally is simply defined as the ability to read and write (Rintaningrum, 2019). Literacy is something that one either has or does not have; people are either literate or illiterate, and those who are illiterate are deficient (Perry, 2012).

Some of the benefits of literacy are as follows: Increase one's vocabulary, optimize brain performance because it is often used for reading and writing activities, get various new insights and information and a person's interpersonal skills will be better. In essence, the literacy movement will lead to improving the quality of human resources, the benefits of literacy are increasing vocabulary, making the brain work more optimally, adding insight, sharpening oneself in capturing information from a reading, developing verbal skills, training thinking and analysing skills, focus and concentration and can write and compose words well.

**METHOD**

This research method uses systematic literature review (SLR). In general, SLR is SLR is a method that identifies, assesses, and interprets findings on a research topic to answer pre-determined research questions.

The aim of an SLR is not just to aggregate all existing evidence on a research question; it is also intended to support the development of evidence-based guidelines for practitioners (Kitchenham, Brereton, Budgen, Turner, Bailey, & Linkman, 2009).

The method in this study has several process flows, namely: 1. Research Questions or research questions are made based on the needs of the selected topic; 2. The search process, its used to get relevant sources to answer the Research Question (RQ) and other related references; 3. Inclusion and Exclusion Criteria, this stage is carried out to decide whether the data found is suitable for use in SLR research or not; 4. Quality Assessment, in SLR research, the data found will be evaluated based on the question of quality assessment criteria; 5. Data Collection. At this stage, the data required in the research are collected for further analysis process; 6. Data Analysis, data that has been collected in the previous stage will be analyzed at this stage. The results that have been analyzed will answer the research question that has been previously determined; 7. Documentation, at this stage the research results are written in paper according to the format provided.

**RESULTS AND DISCUSSION**
This study uses the Systematic Literature Review method, the authors take from several articles in reputable and indexed journals on improving literacy in online classroom learning. Below are the steps of the Systematic Literature Review method:

The following are research questions in this study, namely what can improve literacy in online learning?

The search processes and inclusion and exclusion criteria
The results of the search process and inclusion and exclusion criteria were only 10 journal papers that met the criteria, namely journal papers published in the 2020-2021 timeframe and had a discussion related to improving literacy in online learning. The following are the types of journals that have been successfully obtained:

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Journal</th>
<th>Author and Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Computer Assisted Language Learning (JESPAR)</td>
<td>Marie Webb &amp; Evelyn Doman (2020)</td>
</tr>
<tr>
<td>6</td>
<td>Studies in English Language and Education (SIELE)</td>
<td>Aji Budi Rinekso, Rojab Siti Rodliyah, &amp; Intanertiwi (2020)</td>
</tr>
<tr>
<td>7</td>
<td>Studies in English Language and Education (SIELE)</td>
<td>Titus Terver Udu (2020)</td>
</tr>
<tr>
<td>8</td>
<td>Studies in English Language and Education (SIELE)</td>
<td>Budi Waluyo &amp; Aisah Apridayani (2020)</td>
</tr>
<tr>
<td>10</td>
<td>Social Semiotics</td>
<td>Janine Knight, Melinda Dooly &amp; Elena Barberà (2020)</td>
</tr>
</tbody>
</table>

Quality assessment results
In SLR research, the data found will be evaluated based on the following quality assessment criteria questions: (1) QA1. Was the article published in 2020–2021? (2) QA2. Does the article discuss improve literacy in online learning?

The following is the result of the quality assessment:

<table>
<thead>
<tr>
<th>Author/ Year</th>
<th>(El Islami &amp; Nuangchalerm, 2020)</th>
<th>Q1 Yes</th>
<th>Q2 Yes</th>
<th>Result of Q1 and Q2 Accepted</th>
</tr>
</thead>
</table>

| Author/ Year | (Rinekso, Rodliyah, Pertiwi, 2021) | Q1 Yes | Q2 Yes | Result of Q1 and Q2 Accepted |

| Author/ Year | (Farley & Piasta, 2020) | Q1 Yes | Q2 Yes | Result of Q1 and Q2 Accepted |

| Author/ Year | (Knight, Dooly, & Barberà, 2020) | Q1 Yes | Q2 Yes | Result of Q1 and Q2 Accepted |
In this section the data is analysed and the results will answer the Research Question (RQ) that has been determined previously and in total there are 10 journals obtained through the search process. Result of QA2: Does the article discuss improve literacy in online learning?

After the data is selected based on inclusion and exclusion criteria using the keyword “improve literacy in online learning”, there are 10 journal articles which are then given a quality assessment (Quality Assessment). From the results of the Quality Assessment (QA), there are 10 relevant journal articles which are then grouped based on the techniques, strategies, approaches and methods used to answer the research question. These results answer RQ1, which is shown in the table as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Article Title</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Comparative study of scientific literacy: Indonesian and Thai pre-service science teachers report</td>
<td>Four components of scientific literacy: science content, science context, scientific process, and scientific attitudes based on local wisdom</td>
</tr>
<tr>
<td>2</td>
<td>Digital Literacy Practices in Tertiary Education: A Case of EFL Postgraduate Students</td>
<td>How the students used digital tools for academic/research and general purposes.</td>
</tr>
<tr>
<td>3</td>
<td>Digital-based instruction: Chances and challenges in English language teaching context.</td>
<td>The findings showed that the chances of applying DBI cover activating students, elevating digital literacy, provoking students’ creativity, and creating new application.</td>
</tr>
<tr>
<td>4</td>
<td>Examining Early Childhood Language and Literacy Learning Opportunities in Relation to Maternal Education and Children’s Initial Skills</td>
<td>Relations between children’s language and literacy learning opportunities, initial skills, and maternal education</td>
</tr>
<tr>
<td>5</td>
<td>Getting smart: towards critical digital literacy pedagogies</td>
<td>Explores how different roles of human and non-human agents in an online environment can be made salient and how teachers can promote learner awareness of hidden agents at the layer of digital interfaces.</td>
</tr>
<tr>
<td>6</td>
<td>Impacts of flipped classrooms on learner attitudes towards technology-enhanced language learning</td>
<td>Results showed that the USA experimental group showed a statistically significant difference in all self-reported attitudes in using technology for language learning overtime.</td>
</tr>
<tr>
<td>7</td>
<td>Teachers’ and Students’ Attitudes towards Reading and Writing: Do They Correlate to Learning would be facilitated if both teachers and students hold positive attitudes towards reading and writing.</td>
<td></td>
</tr>
</tbody>
</table>
Students’ Achievement in English? writing, and this, in turn, could impact the students’ achievement in the English language.

**8** Teachers’ Beliefs and Classroom Practices on the Use of Video in English Language Teaching

Four key factors which involved teaching philosophy, there are: teacher’s knowledge, skill, facility, and reading literature.

**9** The English Language Arts Classroom as a Multilingual Literacy Community

Through texts, resources, and positive identity work, the English Language Arts (ELA) classroom contains the building blocks for empowering multilingual literacy places and spaces.

**10** TPACK model-based instruction in teaching writing: an analysis on TPACK literacy

The main points on the survey were about Technological Knowledge (TK), Pedagogical Knowledge (PK), Content Knowledge (CK), and Technological Pedagogical and Content Knowledge (TPACK)

Below are some keywords related to improve literacy in online learning based on ten research articles that were researched:

<table>
<thead>
<tr>
<th>Type</th>
<th>Article Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific literacy and literacy learning opportunities</td>
<td>1 and 4</td>
</tr>
<tr>
<td>Digital tools and using technology</td>
<td>2, 6 and 10</td>
</tr>
<tr>
<td>Students’ creativity and creating new application.</td>
<td>3</td>
</tr>
<tr>
<td>Online environment and content knowledge</td>
<td>5 and 10</td>
</tr>
<tr>
<td>Teachers and students hold positive attitudes</td>
<td>7</td>
</tr>
<tr>
<td>Teaching philosophy and Pedagogical Knowledge</td>
<td>8 and 10</td>
</tr>
<tr>
<td>Texts and resource’s positive identity work</td>
<td>9</td>
</tr>
</tbody>
</table>

By using the systematic literature review method, the authors get facts and data from ten articles related to improve literacy in online learning, namely:

**Scientific literacy and literacy learning opportunities**

This section is divided into two, namely scientific literacy and literacy learning opportunities. For scientific literacy, the fourth category of Scientific literacy, there are Cultural Scientific Literacy, Civic Scientific Literacy, Scientific Literacy Practice, and Aesthetic Literacy and Consumer Science (Drago & Mih, 2015).

When students have the opportunity to learn literacy, this opportunity also allows the student to become an agent who is engaged and ultimately excited to learn and study (Loerts & Heydon, 2016). The most important things for students of scientific literacy are culture, civic practice and an aesthetic that can make students as mobile agents and ultimately eager to learn and learn.

**Digital tools and using technology**

In general, digital tools and technology are something that cannot be separated. A digital tool is a program, website, or online resource that can make tasks or communications easier to complete.

While technology is the application of scientific knowledge that is useful for human life to be practical. The use of digital tools is recognized by teachers of all subjects and people in charge extracurricular activities, which will ultimately diversify learning activities in class Ivaniuk, Soroko, Gritsenchuk, & Kravchyna, 2020). The use of technology in the classroom is associated with test scores but the results will be positive if it is implemented in schools with a higher level of accuracy (Gilakjani, 2017).

**Students’ creativity and creating new application**

A student must have creative abilities, creative abilities are the ability to create innovative ideas, new theories, insights, and new objects for the reconstruction and development of various fields of science. Because when students have creative abilities, they will be able to produce new applications for learning or other functions. Student creativity is fostered when teachers minimize the use of assessments in making social comparisons (Beghetto, 2005). The way to create an app is design, implementation, testing, and publishing (Seymour, Hussain, & Reynolds, 2016).

**Online environment and content knowledge**
The goal of an online environment is to challenge educators in their environment to approach and develop competent students' cultural awareness and skills (Jacobsen & Jacobsen, 2019). The main goal of an online environment is to challenge educators how to make competent students who are expected to produce knowledge content that has subject matter knowledge such as knowledge of language, mathematics, natural sciences and social sciences.

**Teachers and students hold positive attitudes**

Teachers’ positive attitudes have positively influence students’ personality as well as their life performances (Ulug, Ozden, & Eryılmaz, 2011). Teachers must have a polite character, knowledgeable and good moral character so as to create a favourable atmosphere for students when studying (Gowder, 2016). Teachers must have a polite character, knowledgeable and good moral character so as to create a favourable atmosphere for students when studying.

**Teaching philosophy and pedagogical knowledge**

The statement of teaching philosophy is generally individual because it reflects the personal values and what the teacher has (Faryadi, 2015). Various pedagogical approaches and appropriate ways to use ICT to support the development of their students’ 21st century skills (Septiyanti, Inderawati, & Vianty, 2020). In increasing literacy, it must also be considered side 6. Teaching philosophy and Pedagogical Knowledge, two things that are important to have by a teacher reflect personal values and what they have and a pedagogical approach and the right way to use ICT.

**Texts and resource’s positive identity work**

To create knowledge from textual in the form of offline and online resources, a student needs to be supported by the process from the start and during the learning process Schmidt & Skoog in (Schmidt & Skoog, 2020). The text must pay attention to the following things such as using language that is suitable for spelling, paying attention to punctuation, using appropriate capital letters and avoiding body language.

The types of text have several sections such as; a. Narrative text is a written work that tells or describes an event in detail based on a timeline, b. An exposition text is a written work that presents the author's ideas / opinions accompanied by facts and logical reasons, c. Explanatory text is often used to write scientific texts, d. persuasion text is a written work in the form of an invitation or persuasion to the reader to do or follow the contents in the persuasion text that has been made, e. Argumentation text is a written work in the form of paragraph development that aims to convince or persuade readers to have the same thoughts as the author, f. Descriptive text is a writing whose content aims to give the reader a detailed and clear description of an object.

**CONCLUSION**

This study uses a systematic literature review method using several steps to find out how to improve literacy in online learning. A systematic literature review can provide a clear picture of what has already been investigated and what existing gaps (Tan, Le, & Xuan, 2020). This study using ten main articles, it is known that there are seven things that can influence literacy in online learning. There are scientific literacy and literacy learning opportunities, digital tools and using technology, students’ creativity and creating new applications, online environments and content knowledge, teachers and students hold positive attitudes, teaching philosophy and pedagogical knowledge, and texts and resource's positive identity work.

There is something that should not be forgotten in this online learning, don’t just assume that online learning is only carried out during a pandemic like today, but what we must pay attention to is that we also live in the digital age. The digital age then implies important modifications in how we connect to the world, in a broader, more interactive and simultaneous way (Gutiérrez-Martín, 2008) and the era of the industrial revolution 4.0 which is all related to the power of the internet as a life extender to find the desired information and news. Industry 4.0 is really a disruptive concept or simply a natural incremental development of industrial production systems (Rojko, 2017).

**REFERENCES**


Ovcharuk, O., Ivaniuk, I., Soroko, N., Gritsenchuk, O., & Kravchyna, O. (2020). The use of digital learning tools in the teachers’ professional activities to ensure sustainable development and democratization of education in European countries. E3S Web of Conferences, 166. https://doi.org/10.1051/e3scconf/202016610019


Eska Perdana Prasetya  
*Systematic literature review of a scientific journal: improving literacy in online classroom learning*

https://doi.org/10.25134/erjee.v8i2.2114. Received


Udu, T. T. (2021). Teachers’ and students’ attitudes towards reading and writing: Do they correlate to students’ achievement in English? *Studies in English Language and Education, 8*(1), 143–156. https://doi.org/10.24815/siele.v8i1.17524


128