
“NEW LITERACIES” AS UNIVERSITY STUDENTS’ ESSENTIAL SKILLS FOR SELF-REGULATED DIGITAL LEARNING

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ABSTRACT

The covid-19 outbreak had been the critical education turnout that everything in it evolved afterward. The major change was the digitalized education models to cope with the pandemic restrictions. While the technologies brought ease and advancement to people, they also contained distractions for students. In this situation, universities began adapting to the digital learning system by promoting student-oriented learning approaches such as self-regulated learning. However, self-regulated learning that relies on digitals is more than simple. Other than its prominent traits (self-motivation, efficacy, and control), digital self-regulated learning also require the students to master the appropriate skills to avoid failure in learning: digital literacy and information literacy. That these literacies were found crucial during the ‘new’ era of digital learning, researchers called them the new literacies. Researchers found out that new literacies can be integrated and contribute to students’ self-regulated learning strategies. This article would elaborate on the new literacies’ components, how they should be used, and benefit the university students’ self-regulated learning.

INTRODUCTION

Thanks to the Covid-19 pandemic that education evolved into another era. Nowadays we are familiar with digital-based learning models, digital learning media, materials, and assessment which has been introduced through the decade but its prominence rose due to the pandemic. Teaching and learning are now massively evolving with the help of digital tools and modes to help learners and teachers cope with the pandemic restrictions (Calamlam & Macabali, 2021). These changes and

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innovations brought education into a new era of digitalized learning models. Digital learning models shifted education to be more student-oriented.

Based on this principle, self-regulated learning models began arising. However, digital tools provide freedom to easily access varied learning sources and determine their learning goals independently. On the other hand, the freedom of digital modes allows students to meet learning distractions such as misleading information or seduction, decreasing motivation, and procrastination. For example, the ease of multitasking features on smartphones causes distraction (Hartley et.al, 2020).

However, the emergence of digital tools has not fully affected students' success in learning self-regulated, especially for college students. Covid-19 pandemic policies changed the students' learning habits and so, they have exposed distraction at home more easily (Hensley et.al, 2021). They also put more effort to re-adapt to learning time and management decreased the students' learning success. In some cases, the sudden shift of the education era forced students to quickly adapt to all the digital and virtual environments while not all of them were literate. Sorgo et al (2016) stated that digital native university students were not quite an information literate students, while university studies are mainly filled with ICT materials. In addition, the obstacles that impacted their learning goal also tend to be less-achieving, more like short-term goals. For instance, students who were determined to master a critical skill would decide to 'just do the learning' (Hensley et.al, 2021).

Esperat & Loftis (2021) define both literacies as 'new literacies' and should be applied concurrently. Thus there are factors that students have to master to overcome these distractions, such as intrinsic motivation, learning management skills, and digital skills. In a digital learning context, the researcher refers to digital skills as digital and information literacy skills (Sabilalo et.al, 2020). These literacy skills allow students to identify problems, think critically, filter useful information for problem-solving, and communicate the solutions. This way, would be more meaningful and connected to the learner's needs.

UNIVERSITY STUDENTS' LEARNING CHARACTERISTICS

College students are universally adult learners who are independent and self-determined. They are expected to be capable of knowing their needs and adapting to the environment. In this case, there are specific characteristics of university students to differ from primary-secondary students. University students are considered adult learners who can think critically (Sari & Putra, 2015), be aware, independent, and are self-managed (Paramita, 2010). As learners of tertiary education, these students expect about their career and competence (Sultoni, Gunawan, & Sari, 2018). However, these traits need to refer to the 21st-century skills, local characters, and religious values in Indonesia. Indonesian Ministry of Education recently issued the *Profil pelajar pancasila*, focused on developing the students' characteristics for the 4.0 era (Kemdikbud, 2020). The traits include (1) religiousness or attitude, (2) independence, (3) collaboration, (4) global citizenship, (5) creativity, and (6) critical thinking.

In line with the students' characteristics, the university learning models are made to fulfill the students' traits. Hence the learning models offered by universities

rely on student-centered approaches, letting them seek for their best strategies to complete their studies. One of which is digital and self-regulated learning that is going to be elaborated on further in this article.

DIGITAL LEARNING

The impact of remote learning policies, also the vast improvement of the Internet and learning platforms cause the education stakeholder to find ways to maintain effective education. Thus the shifting from conventional face-to-face learning to digital-based learning took place in a short time. Digital language learning involves technology-enhanced platforms or tools for teaching and learning (Li & Lan, 2021). The characteristics of digital learning are a broad use of applications and information, as well as a learner's freedom to access resources. Thus, digital learning should be exploratory and student-centered which suits the self-directed and autonomous learning models.

The development of digital language learning has emerged to various models such as multimodal learning, blended learning, flipped classrooms, and others. Although digital learning was an impact of the covid-19 outbreak, its essentials are expected to remain relevant years after as the world keeps evolving in terms of information technology. To support the development of the digital era, improving the human capital which is digitally literate and kept updated to the latest information is crucial.

SELF-REGULATED LEARNING (SRL)

SRL is not quite a newly developed approach, yet it is relevant to today's education phenomena after the pandemic outbreak thanks to its traits that support adaptive and digital learning (Harati et.al, 2021).

There are basic skills of conducting self-regulated learning are self-efficacy, independence, and self-control (Saraswati, 2017). Referring to Saraswati and Harati's researches, self-regulated learning requires students' consciousness of what and how they should learn. In line with Bakhtiar and Hadwin (2011), a learner's metacognitive consciousness (awareness of planning, monitoring, and evaluating themselves) can foster the learner's metacognitive control, cognition, behavior, and affect.

These factors eventually help learners select useful information and apply strategies to avoid distractions. The decision-making depends on how well the students manage their learning needs using digital and information literacy skills. According to digital learning concepts, information literacy and digital literacy may support students' SRL strategies and success in achieving their learning goals. Literacy skills in self-regulated learning prompt learners to actively participate in terms of metacognitive, motivation, and behavior. Thus they can plan and set learning goals as well as control their learning, motivation, and environment (Rosyadi et.al, 2021).

NEW LITERACIES, AN EXTENDED APPROACH

West (2019) found out that openness to technology can either enhance or constraint literacy learning. However, she believes that new literacies as an improvement for education in terms of technology-infused learning, assessment, and curriculum. The term 'new literacies' was also mentioned in Esperat and Loftis' (2021) writing which integrates digital and information literacy skills. Integrating

new literacies into learning and digital tools is now the need in education which obliges teachers and students to improve their openness to technology improvement. New literacies are required for learners who live in the digital era in which information and communication technology integrates learning and technology-infused inquiry (Leu, Kinzer, Coiro, Castek, et.al, 2019). After all, new literacy is a new approach for digital-native students to adapt to any changes in technology, especially regarding technology-infused learning.

On a *sarjana* (bachelor) level, students are expected to keep updated about technology development, and to be capable of manifesting their knowledge and skills into scientific or social projects which can solve problems in society (Ristekdikti, 2015). Thus, the new literacies should be scrutinized from their origin: perspectives of digital and information skill competencies. Mastering digital literacy does not specify only to operate digital tools, but also the capability of self-managed usage, and information gaining are main skills that students have to optimize their learning.

Carlson & Brosnahan (2012) detailed that digital learners are connected to the sources, performing a new way of thinking. Learners are responsible for being critical and taking advantage of information use, data safety awareness, and not neglecting the norms (Jones & Hafner, 2012). Jones suggested the idea of digital literacies as connectivity (mediated users), meaning that learners should try associating their digital abilities to gather meaningful information, relate to others; think critically and reflect on their real-life contexts.

Recent Indonesia's ministry of education issued a new framework that put information literacy as a part of digital literacy. Information literacy is another set of skills integrated into the new literacies. However, information literacy, particularly, involves several important skills. It indicates one's capabilities of searching through various sources of information, knowing what kind of information is needed, managing the information efficiently, as well as evaluating and classifying (Shamsaee et.al, 2021). Information literacy competencies refer to students as creators and consumers of information who can participate collaboratively (Guo & Huang, 2021). The indicators of information literacy are summarized into seven aspects identifying, scope, planning, gathering, evaluating, managing, and presenting information (SCONUL, 2011).

Level	Key term	Definition
Level 1 (L1)	Remembering	Recalling and recognizing knowledge from memory to produce facts, definitions, and lists, as well as reciting or retrieving materials
Level 2 (L2)	Understanding	Developing meaning from different function types verbally or graphically
Level 3 (L3)	Applying	Utilizing or performing a procedure through execution or implementation, involving the use of learned materials through products, such as presentation, models, simulations, and interviews
Level 4 (L4)	Analyzing	Separating concepts or materials into parts to indicate the relation or interrelation between the parts relative to their overall purpose or structure. Mental actions denote the ability to differentiate, organize, attribute, and distinguish between components
Level 5 (L5)	Evaluating	Making decisions by checking and criticizing based on standards and criteria
Level 6 (L6)	Creating	Incorporating the elements for coherent or functional development and regrouping them into a new pattern through planning, generating, or producing

Figure 1 Andrew Churces' (2009) Bloom's digital taxonomy (BDT) in Matore (2021)

Integrating new literacies would make students able to use the media, overcome problems, and gain useful information. The new literacies will eventually foster their intrinsic motivation (Matore, 2021) to comply with their learning needs and strategies. In addition, the increase in motivation fosters students' efficacy, leading to better SRL management. For a vivid view of how new literacies contribute to SRL and its aspects, see Figure 2.

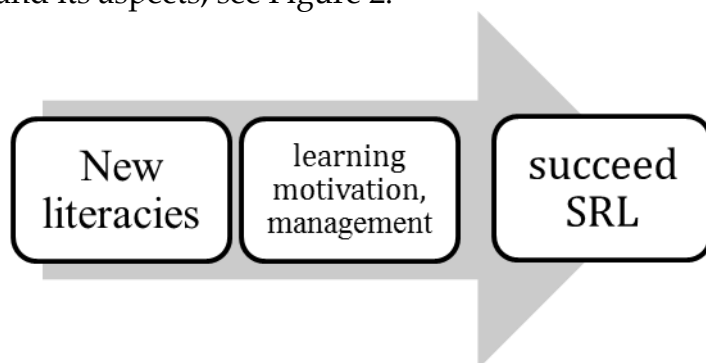


Figure 2 framework of new literacies contribution to SRL

CONCLUSION

In the digital age, learning tends to be more flexible in terms of its models and approaches. Students need to gain the competence to survive the changes by mastering new literacies. The skills further are applicable not only for learning use but also in real life in which they have to decide their way of living. In real life context, mastering new literacies can promote the use of the right tools and strategies, solving technology problems, enhance self-connectivity and open-mindedness, and take advantage of the technology wisely.

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