

CHAPTER II

REVIEW OF THE LITERATURE

This chapter points out the explanation and studies related to Grammarly and self-directed learning in second language writing. It is divided into two main parts that present a discussion about theoretical framework and previous related study. The theoretical framework consists of related theorists in this study while a previous related study explains the implementation of related theorists in the previous studies.

2.1. Theoretical Framework

2.1.1. Grammarly Works on L2 Writing

Writing course takes a lot of portion in teaching and learning process because as a learner who takes major in English department, it becomes one of the partial fulfillment of the requirements for undergraduate students before graduate from their institution (Ghufron & Rosyida, 2018). Most academic language and learning advisers also would agree that students' knowledge of grammar and punctuation is at least clear (Cavaleri & Dianati, 2016) and it becomes one of the important skills to determine the quality of students' writing (Narita, 2012).

Writing is a complex cognitive skill that requires deliberate and sustained practice for the development of writing skills. Sustained practice with students' willingness helps improve students' performance and motivation in writing (Palermo & Wilson, 2020) since they practice it by themselves. However, practicing alone is not enough, students need more external income. Skill

development requires frequent, precise, and effective feedback from one or more feedback agents such as teachers, peers, self, or the computer.

Getting feedback from the teacher has limitations in the aspect of time because the teacher or lecturer has to provide feedback to a large number of students which would be time-consuming if they excessively focus on many aspects of student writing. Whereas for peers, students tend to be less confident with the ability of feedback given by their peers because they are at the same level of education even though their peers have higher abilities.

Even though the students have been taught a writing course, it does not mean that they do not face difficulties when they are asked to write; most students generally have problems with grammatical aspects, use of vocabulary, misspelled words, and wrong punctuation (Ghufron & Rosyida, 2018). To overcome these problems students should make their writing clearer and easier to understand, without creating ambiguous meaning and misunderstanding information (Nova, 2018). Therefore the evaluation of writing needs to be done before submitting the writing.

To help students do self-correction in their writing, improve writing practice, and speed up practice-feedback loops without increasing the time costs incurred by teachers when evaluating and commenting on student work, they can use an automated writing evaluation (AWE) system such as Grammarly. AWE systems take advantage of automated feedback capabilities, often together with automated assessment and a variety of learning management functions, to support teaching and learning of writing. Grammarly has been claimed as an easy tool that can help students and academics with their writing by checking the spelling,

grammar, and punctuation errors and providing comprehensive and useful feedback including correction and suggestion to make the writing more readable, clear, precise, effective, mistake-free, and impactful with a high rate of accuracy and evaluation speed (Daniels & Leslie, 2013; Ghufron & Rosyida, 2018; Grammarly, 2019; Nova, 2018).

Grammarly first asks the writer to set goals, which informs Grammarly about the context of the writing and helps people to propose suitable suggestions based on the set goals that have been chosen. Grammarly enables users to create a rhetorical situation by making choices about the audience, formality, domain, tone, and intent of the text (Grammarly, 2020).

Figure 2.1 Goal setting form in Grammarly

The screenshot shows the Grammarly 'Set goals' form. The form is a modal window with a white background and a blue border. It contains several sections: 'Audience' with options 'General', 'Knowledgeable', and 'Expert'; 'Formality' with options 'Informal', 'Neutral', and 'Formal'; 'Domain' with options 'Academic', 'Business', 'General', 'Email', 'Casual', and 'Creative'; 'Tone' with a grid of emoji-based options like 'Neutral', 'Confident', 'Joyful', 'Optimistic', 'Friendly', 'Urgent', 'Analytical', and 'Respectful'; and 'Intent' with options 'Inform', 'Describe', 'Convince', and 'Tell A Story'. There are also checkboxes for 'Show Set Goals when I start a new document' and buttons for 'Reset to defaults' and 'Done'.

After setting the goals, Grammarly then checks the writing posted on the web. It will check the spelling, punctuation, and convention errors. The issues will be underlined in red and suggest the proper or suitable word for the sentence.

People can choose whether to accept the suggestion or just skip it by clicking the trash icon at the bottom right of the suggested word.

Figure 2.2 Corrected spelling in Grammarly

The screenshot shows a Grammarly interface with a document titled "Demo document". The main text contains a red underlined word "Mispellings" and a blue underlined sentence: "Underlines that are blue indicate that Grammarly has spotted a sentence that is unnecessarily wordy. You'll find suggestions that can possibly help you revise a wordy sentence in an effortless manner." The right sidebar shows an "All suggestions" panel with a "SPELLING" section. A suggestion for "Mispellings" is highlighted in green, showing the correction to "Misspellings". Below it, a list of other suggestions includes "effect", "commas", "punctuation", and "Add the word(s)". The overall score is 53.

While the blue underline, correct about the conciseness of the sentence where it asks the writer to simplify the sentence becomes more simple and readable.

Figure 2.3 Corrected conciseness in Grammarly

The screenshot shows the same Grammarly interface as Figure 2.2. The main text now has a blue underlined sentence: "Underlines that are blue indicate that Grammarly has spotted a sentence that is unnecessarily wordy. You'll find suggestions that can possibly help you revise a wordy sentence in an effortless manner." The right sidebar shows the "All suggestions" panel with a "CONCISENESS" section. A suggestion for "Blue underlines" is highlighted in green, with the text "Consider shortening this phrase." and a "Learn more" link. Below it, a list of other suggestions includes "a sentence that is unnec...", "possibly", and "revise a wordy sentenc...". The overall score is 53.

As can be seen above, free Grammarly includes correctness and clarity of the writing. Part of correctness includes grammar, spelling, punctuation, consistency in spelling, punctuation, and fluency, while clarity includes conciseness and readability of writing. Grammarly also shows the performance of the text in percent. These features enable the user to know how good their writing is before and after receiving feedback from Grammarly.

2.1.2. Benefits of Grammarly in L2 Writing

Grammarly is called the most accurate English grammar checker in the world. It claims to be able to correct up to ten times more errors than popular word processors by providing more than 250 grammatical checks and a contextual spell checker (Grammarly, 2019). It is found in 2009 by Maz Lytvyn and Alex Shevchenko. In 2014, Grammarly was ranked 55th in the index of the fastest-growing companies by Deloitte and currently has more than four million registered users (Grammarly, 2019). From the data, it can be seen that Grammarly is such a famous online grammar checker. O'Neill and Russell (2019) also point out that Grammarly is chosen by Central Queensland University in Australia as a potential grammar feedback tool based on its ability to adjust theories that conflict with written corrective feedback.

Students need to use standard grammar and adhere to grammatical conventions to succeed in academic writing at universities (Caveleri & Dianati, 2016). Hence, the students need to use such an online grammar checker as an input to their skill in grammatical range and accuracy in L2 writing because they cannot improve their language skills without input (O'Neill & Russell, 2019). Using technology as a facility may foster students' self-directed learning because

they are more likely to contribute and participate in the learning process actively (Rashid & Asghar, 2016; White & Robertson, 2014). Ghufron and Rosyida (2018) also state that learning using Grammarly encourages the students to be autonomous learners as it requires the students to evaluate their works with the help of feedback given by the system.

In second language writing, Grammarly can help students to reflect and learn from each other, enabling students to receive feedback, providing a good editing environment for students, and providing a good learning environment (Reis & Huijser, 2016). It also can help the students raise their awareness on how to use the article and chose the right diction in writing (Ghufron & Rosyida, 2018; Karyuantry, et al., 2018). Besides, Grammarly also can help the lecturer or adviser's time in giving the feedback for the students' writing because they only have to check the cohesiveness and coherence of the students' writing since the grammatical errors have been checked by Grammarly (Cavaleri & Dianati, 2016; Karyuantry, et al., 2018).

Grammarly stands out among other spelling and grammar checkers because it goes beyond merely correcting basic errors. The tool also helps with contextual issues and helps to boost the knowledge as well as the construction of the English language. Grammarly can identify and fix small-expression errors that are often overlooked by other tools. This app has been developed by passionate linguists, and learns minute details and corrects comma connections, comma usage, misspelled words, and repeated words. Also, it provides strong suggestions for replacing weak adjectives. In this way, these tools help people become confident writers and focus on creating compelling and effective writing. As

mentioned earlier, Grammarly isn't just a basic error corrector. It also helps improve writing style by helping people memorize suggestions and additions. It makes this happen by taking over the entire context of the change, all the elements of the subject-word deal, and the placement of the modifiers.

The direct feedback given by Grammarly is highly accurate. Even though sometimes it can misunderstand what people trying to say or put a comma where it does not necessarily need or want one, but overall, Grammarly has a high rate of accuracy. it was provided by how many second language learners use it to help them in correcting their grammatical errors in writing. When checking grammar, accuracy is always the best. people only need to be more careful with what Grammarly suggests to change, and only accept if it is correct.

In giving the feedback Grammarly does not only tell when something is wrong. Besides giving a red line in a wrong word, it also explains in a box why the red underlines word is wrong (Grammarly, 2020). As such in the attached image below.

Figure 2.4 Explanation of the wrong word in Grammarly

Demo document

The basics

Mispellings and grammatical errors can effect your credibility. The same goes for misused commas, and other types of punctuation . Not only will Grammarly underline these issues in red, it will also showed you how to correctly write the sentence.

B *I* U | H1 H2 | | | |

10 All suggestions

• SPELLING

effect → **affect**

The word **effect** doesn't seem to fit this context. Consider replacing it with a different one.

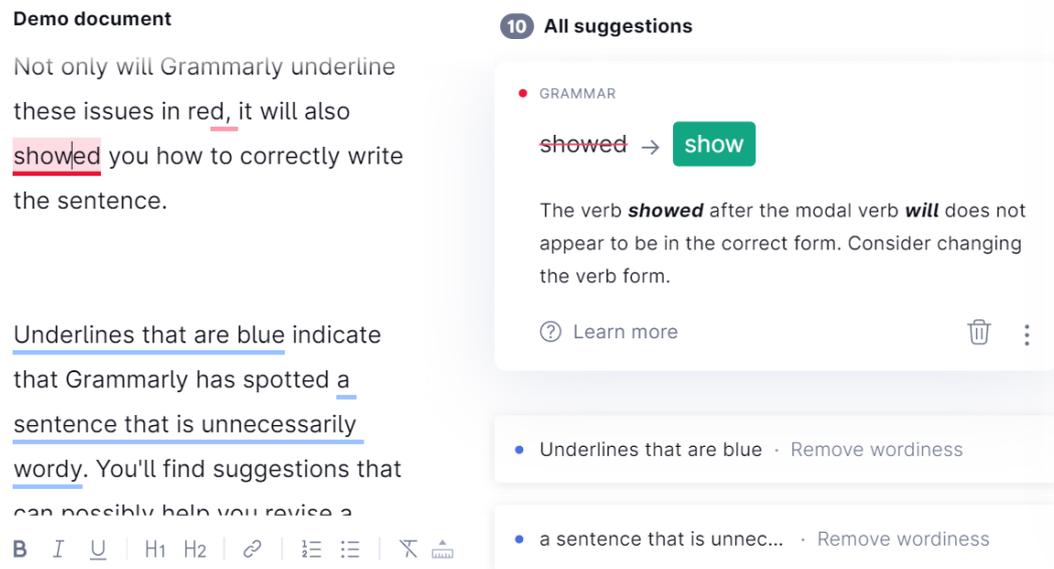
Learn more



• commas, · Remove the comma

• punctuation . · Remove a space

Figure 2.5 Explanation of the wrong word in Grammarly



Grammarly goes further with explanations so the users can understand to learn and improve their writing. The writing is not only being corrected but, people also learning how to become a better writer. Continuously using Grammarly for correcting the writing, people will more understand where the commas should be put in, how to phrase certain sentences properly, and many more. By a simple explanation like the one featured above, people or students will not even need Grammarly as much in the future.

Grammarly is defined as one of the automated written evaluations (AWE) that can be used in writing for the second language learner. These days, the intensity of using the automated written evaluation has immediately increased due to multiple advantages provided. The AWE program is claimed as more consistent and objective rather than human evaluators and helpful for measuring linguistic accuracy. It also beneficial to save the adviser's time in giving the feedback on student's writing, where it makes them less focus on the low-level problem in

writing such as the grammar and mechanics error (Koltovskaia, 2020) because it already corrected by Grammarly.

AWE programs are acceptable for detecting errors at a level close to the effectiveness of teacher correction. It can improve the quality and engagement of student's writing. This observed increase in accuracy is accompanied by high levels of motivation and self-confidence of the students. Students are satisfied with corrective feedback from automated writing evaluation programs such as Grammarly. By looking at the types of errors, they found that automatic writing evaluation software increased revisions and accuracy in their writing (Bailey & Lee, 2020).

AWE can help low and high-performing students with their accuracy and save valuable instructor time. AWE programs such as Grammarly are valuable L2 writing tools that can help teachers assess writing and help students revise composition. It has a positive effect on the quality of the student-generated text and becomes more useful when combined with teacher feedback. AWE has been shown to save teachers time by reducing grading, supporting individualized instruction, facilitating classroom management by increasing student independence and motivation to write, assisting portfolio management, and supporting teachers in providing more feedback on advanced writing skills (Palermo & Wilson, 2020).

2.1.3. Self-directed Learning Development in L2 Learning

In the last few decades, the development of self-directed learning skills has become one of the primary aims of adult education. Research in self-directed learning has increased excessively, and new programs, practices, and resources for

facilitating self-directed learning have been introduced to help educators as well as learners (Williamson, 2007).

Self-direction is the basis of all learning, both formal and informal, the effectiveness of learning is related to individual motivation. All individuals can become independent learners but the level of development varies due to individual differences or proficiency. Educators and students need to have a clear understanding of the concepts and nature of self-directed skills for further development. Educators, in this context, have the additional responsibility to develop the full potential of learners in ineffective self-learning by building and maintaining harmonious team relationships (Williamson, 2007).

Hedge (2001) explained self-directed learning is directed at people who have self-motivation, people who take initiative, people who have clear ideas about what they want to learn, and people who have their plans to pursue and achieve their goals. Silen and Uhlin (2006) state that students' independence in learning or self-directed learning has been also investigated and designated as self-regulated learning. Zimmerman (2002) states that self-regulated learning is not a single personality trait that is owned or not possessed by each student. Instead, it involves the selective use of specific processes that must be personally adapted to each learning task.

Bosch, Mentz, and Goede (2019) also pointed out that Self-directed learning is an educational approach in which learners are responsible for their learning. This is characterized by students who are actively involved and control the learning process themselves. These students have the ability to choose their own learning strategies, resources, and results to achieve their goals. Loyens,

Magda, and Rikers (2008) claimed that when learning is placed on a continuum, it can range from educator-oriented at one end to self-directed at the other. Independent learning emphasizes the construction of knowledge through discussion and dialogue and does not emphasize teaching as a process in which an educator is the main source of information.

Self-directed learning was initially claimed by American adult educator Malcolm Knowles in 1975 as the universal disposition of adult learners who were judged to show an increasing tendency to self-directedness as they entered adulthood (Brookfield, 2009). Malcolm Knowles, who wrote a popular work on self-direction, was a central figure in the adult education field in the United States in 1900. His work was pivotal and influential in redirecting adult educators from educating people to helping people learn.

Knowles continued his work at SDL in the 1970s, and in 1975 he published a book called *Self-Directed Learning*. Knowles divides SDL into three distinct sections; (1) students, (2) educators, and (3) a set of learning resources. The first, which focuses on students, Knowles discusses the importance of SDL and how SDL differentiates from educator-directed learning. In the second part, the focus is on educators and their role in SDL. Knowles guides readers through a very detailed process of how a learning facilitator can lead a group of students through the self-discovery process. The last section consists of exercises to help one take responsibility for one's learning (Bosch, Mentz, & Goede, 2019)

Self-direction in learning is a central element in Knowles' concept of andragogy; the art and science of helping adults learn (as opposed to helping children to learn). Knowles points out that the tendency to be self-directed

separates adults from children is a unique phenomenon of adults. In his view, facilitating self-direction should be the primary goal of adult education. If adults are skilled in this mode of learning, they will be well equipped to live in the information age where technological developments mean most people will spend their work lives continually retraining new careers. In the face of criticism that andragogy is a culture-bound concept that ignores customary and collective ways of knowing, Knowles gradually reconciles self-direction as one of those modes of learning that are contextually determined on a continuum from dependence to independence (Brookfield, 2009).

Self-directed learning is defined as individuals who learn cooperatively with others. This kind of learning seems to inspire self-improvement and broadens self-awareness. Knowles makes a famous statement when introducing the pioneering work at SDL, that 'the individual is an energy system with a modifiable intelligence, and has an inertia guide for self-feedback.

There are a lot of aspects, skills, and also characteristics of people that able to be called a self-directed learners. It also cannot be the same for all individuals. As Jagals (2020) stated that self-directed learning term can refer to a variety of characteristics, for example, taking responsibility to plan, monitor and evaluate one's learning. One may have certain characteristics but the other may not. That is why self-directed learning has a lot of aspects, skills, and characteristics. As proposed by Guglielmino (1997) in Bosch, et al. in 2019, the characteristics of self-directed learners:

Table 2.1 Characteristics of self-directed learner

Characteristics of Self-directed Learner
Initiative
Independence
Persistence
a sense of responsibility for one's own learning
a tendency to view problems as challenges
self-discipline
a high degree of curiosity
a strong desire to learn or change
the ability to use basic study skills
the ability to organize one's time and set an appropriate pace for learning
self-confidence
the ability to develop a plan for completing work
joy in learning
tolerance of ambiguity
a preference for active participation in shaping educational programmes
the ability to evaluate one's own progress
an exploratory view of education
above average risk-taking behavior
knowledge of a variety of potential learning resources and the ability to use them
the ability to accept and use criticism
the ability to discover new approaches for dealing with problems
the ability to formulate learning objectives
the ability to select and use many learning strategies
a positive orientation to the future
emotional security
average or above average intelligence
Creativity
a preference for independent study or relatively unstructured sources

Source: Bosch, Mentz, and Goede (2019: 22)

Williamson (2007) identified five broad areas of self-directed learning. Those are awareness, learning strategies, learning activities, self-evaluation, and interpersonal skills. First, awareness comes from the nature of individuals which is marked by interest or motivation in learning then proceeds with forming

opinions or ideas and making their own decisions or making a plan. In this stage, students choose their own source of learning. The next is learning strategies; it is defined as the individual's ability to decide their best way of learning. Learning activities also one of the aspects of self-directed learning which means independent learning activities that are owned and carried out by students to facilitate their learning. Another aspect is self-evaluation from the individuals where they can evaluate their progress and assess the quality of their work. Successful self-directed learners monitored and evaluated their progress; and assessed the quality of their work (Williamson, 2007). Chee, Divaharan, Tan, and Mun (2011) also identified self-monitoring involves the internal process of thinking, reflection, and making improvements on the learning process. The last is the interpersonal skill of the individuals which can help them in communicating with society and gain different perspectives or ideas from different people.

On the other hand, the development of self-directed learning has become one of the skills that is much emphasized in these recent studies to be able to create meaningful learning experiences (Rashid & Asghar, 2016). Silen and Uhlin (2006) also show that the concept of self-directed learning creates a lot of important factors related to students' responsibility and independent learning. It is argued that the technology learning environment can provide students with great opportunities and abilities to be self-directed in their learning because it guarantees the students to be not only knowledgeable about the proper resource selection, but also the management and appropriate usage of the information (Rashid & Asghar, 2016).

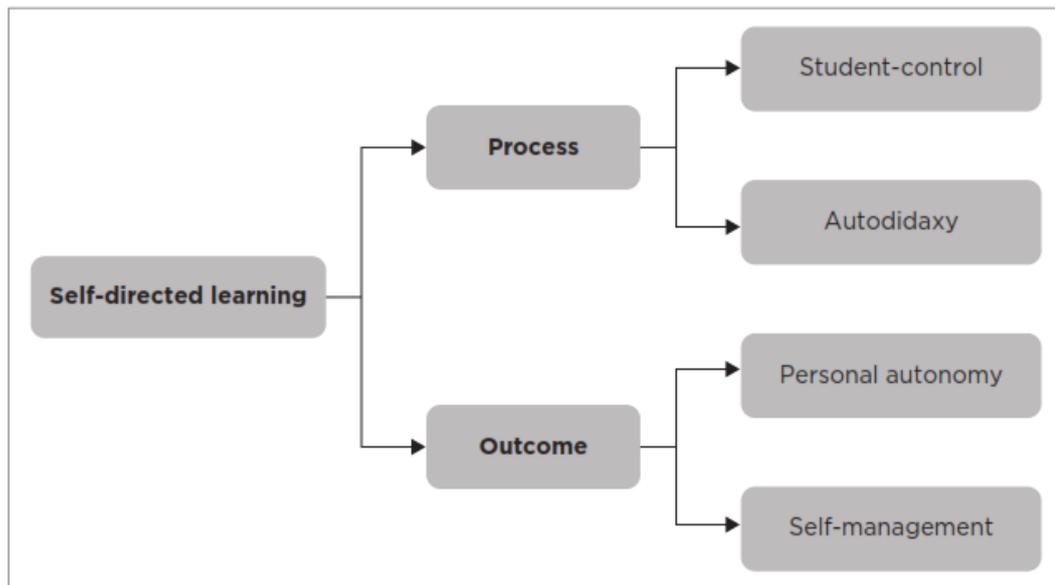
In self-directed learning theory, it has some models. One of them is proposed by Candy (1991); Song and Hill (2007) appointed that Candy concluded SDL as an umbrella concept, includes four dimensions: 1) self-direction as a personal attribute (personal autonomy); 2) self-direction as a willingness and capacity to carry out self-education (self-management); 3) self-direction as a mode of organizing informal arrangements of instruction (learner control); and 4) self-direction as an individual, non-institutional pursuing learning opportunities in a natural social environment (autodidaxy).

Personal autonomy is one of the main goals of education, which refers to the personal characteristics of a student. Self-management refers to the willingness and capacity to organize one's own education. Personal autonomy can be considered as an overall disposition and self-management refers to the exercise of autonomy in learning (Song & Hill, 2007). These two dimensions are the outcome where at one end of the continuum, the educator has total control over how the content is to be presented, what is to be studied, and what outcomes are expected from the students (Bosch, et al., 2019).

Candy (1991) distinguishes between learner control and autodidaxy, where learner control is concerned with control over aspects of the learning situation, while autodidaxy means learning outside of a formal educational setting Song and Hill (2007). These stages are the process where the student decides what is to be learned, how learning activities would occur when learning would take place, where learning activities would be conducted, and how learning outcomes would be evaluated. The continuum of the autodidactic domain represents the amount of assistance the student has in making decisions about the learning experience

(Bosch, et al., 2019). To make it more understandable below is a framework from Candy's model of self-directed learning.

Figure 2.6 Candy's model for SDL



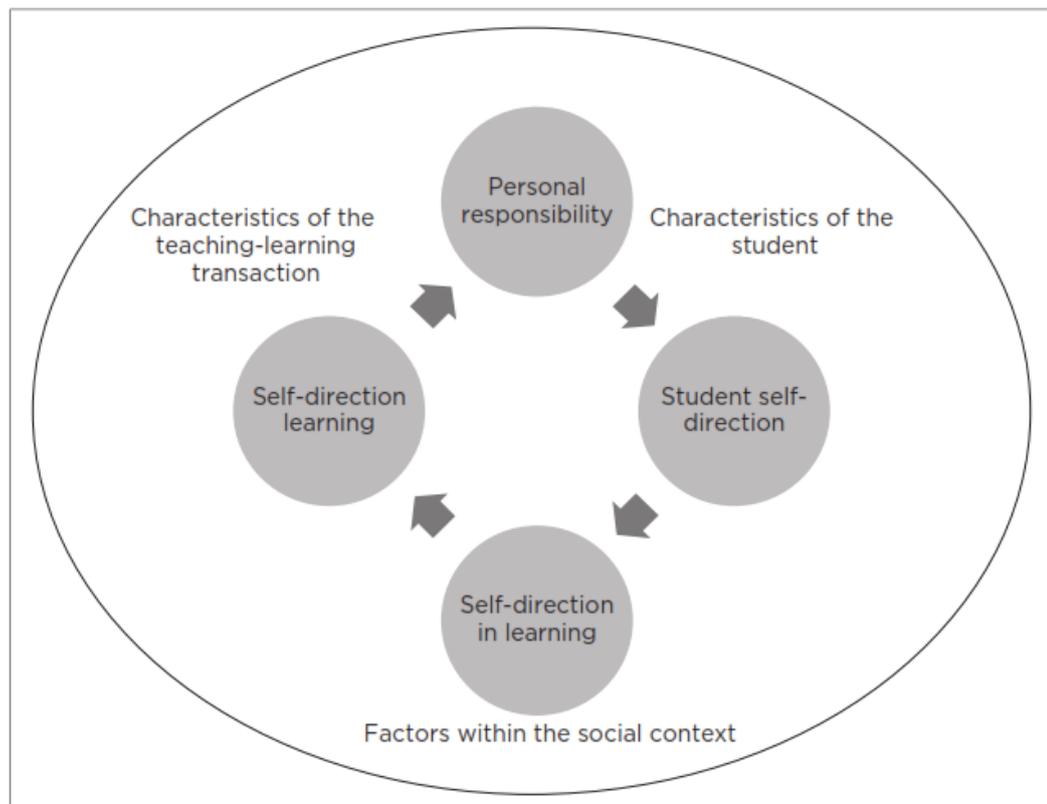
Source: Bosch, Mentz, and Goede (2019: 8)

The various constructs in the Candy model add an element of depth to our understanding of SDL. Further, the Candy model is the first to suggest that learner self-direction may be different in different content areas. Candy (1991) argues that students may have a high level of self-direction in an area familiar to them or an area similar to before experience. It also discusses how SDL can be seen as an outcome or process but asserts that the development of self-direction in students is a goal, with a focus on helping people to thrive the quality of moral, emotional, and intellectual autonomy. In Candy's model students tend to be independent and vary in different situations. Educators must be aware of the fact that a student who directs himself in one situation may be necessary more orientation, support, and guidance in other learning situations (Bosch, et al., 2019). When implementing SDL, the learning context cannot be ignored. It is important to consider that if

students are enrolled in several different subject areas, their self-directed learning level may be influenced by their different interests and skills.

Another model of SDL is from Brockett and Hiemstra (1991), who provide the SDL model in two main orientations, that is personal responsibility in the teaching-learning process and personal responsibility in one's own thoughts and actions. In the first orientation, self-directed learning is seen as a process in which a student assumes the main responsibility for planning, implementing, and evaluating the learning process. In the second orientation, self-directed learning is referred to as a goal, which focuses on the desire, thoughts, or preference of learners to take responsibility for learning (Song & Hill, 2007).

Figure 2.7 Brockett and Hiemstra's Personal Responsibility Orientation model for SDL



Source: Bosch, Mentz, and Goede (2019: 11)

Brockett and Hiemstra's model declares that people have control over their responses even if they do not have control in the real situation. Personal responsibility does not always imply full control over the learning environment. However, it implies personal control over the response to the situation. This is an important factor to consider when working with students in a formal educational setting. It is not always possible to give students full control over the learning environment, but they can take control of their own learning and their attitude towards the learning content (Bosch, et al., 2019).

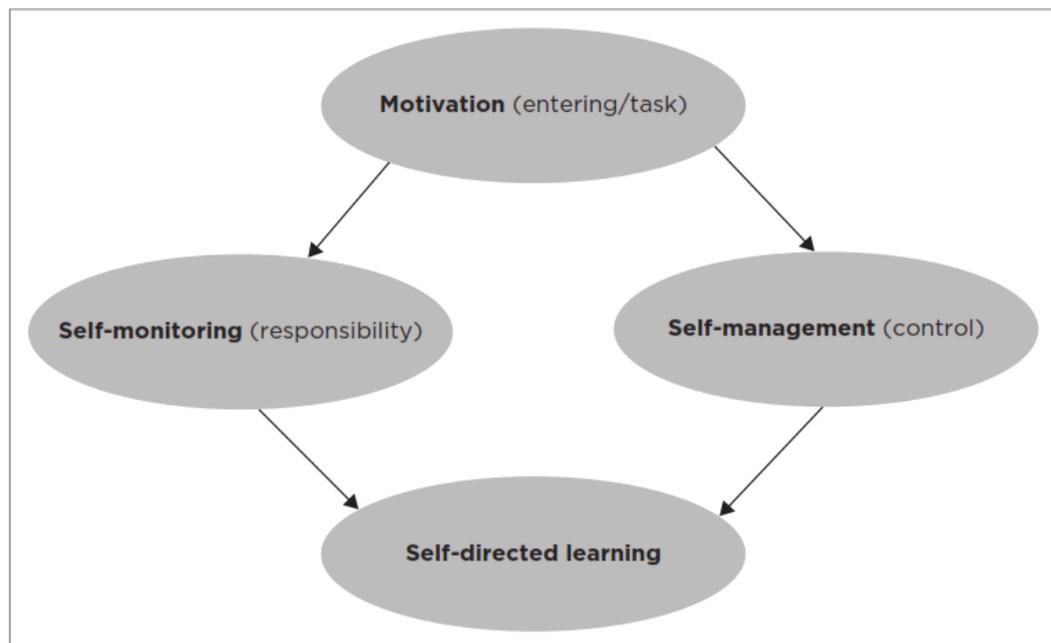
The last model of self-directed learning that will be shown here is presented by Garrison, a Canadian professor at the University of Calgary who has published extensively on distance education and its relationship with teaching, learning, and the communication process between instructors and learners. Garrison defines SDL as an approach in which learners are motivated to take personal responsibility, self-monitoring, and self-management processes in building and ensuring meaningful and valuable learning outcomes (Abd-El-Fattah, 2010). Garrison (1997) was influenced by Knowles and Brookfield's work and developed a three-dimension model of self-directed learning that is self-management, self-monitoring, and motivation.

Here, self-management involves students who are taking control of the learning context to reach their learning goals (Bosch, et al., 2019). This form of control implies working with others in context and not necessarily learning independently. The learning process includes collaboration between educators and students in managing learning situations because it is believed that students

should be given the freedom to choose how they want to carry out the learning process.

Self-management is concerned with task control issues. As for task control, it is determined by balancing the factors of expertise, resources, and interdependence (Abd-El-Fattah, 2010). Skills represent the abilities and skills of the facilitator and students. Resources include a wide range of support and assistance available in educational settings. Interdependence reflects the norms and standards of the institution or subject and the integrity and choice of students. Self-management focuses on goal setting, use of resources, collaboration with others, and external support for learning. Here is the simple framework of the Garrison model.

Figure 2.8 Garrison's model for SDL



Source: Bosch, Mentz, and Goede (2019: 13)

Another component of the Garrison SDL model is self-monitoring. This includes monitoring various learning strategies as well as the awareness and ability to think about students' thinking (Abd-El-Fattah, 2010). It is a process in

which learners are responsible for the construction of personal meaning through the integration of new ideas and concepts with previous knowledge. Teachers can provide effective feedback to help students monitor the quality of learning outcomes themselves because internal feedback alone may be less accurate and explicit.

It is important to distinguish between responsibility and control; responsibility refers to self-monitoring, while control refers to self-management. Educators need to understand the difficulties faced by students in taking responsibility for learning if they do not experience control over the learning situation (Bosch, et al., 2019). Sharing of control, choice, and collaboration encourages students to take responsibility for their learning. Learning efforts are only possible if students are motivated. Motivation is between control and responsibility during the learning process.

Motivation is an important issue in self-directed learning. This underlies a very large influence on students who assume responsibility and control of the learning process (Garrison, 1997). Motivation helps initiate and maintain an effort towards learning and the achievement of cognitive goals. Motivation includes entering motivation and task motivation. Entering motivation establishes a commitment to a particular goal and the willingness to act; while task motivation is the tendency to focus on and persist in learning activities and goals (Abd-El-Fattah, 2010). Motivation leads students to be responsible and maintain their learning. Creating a good environment of learning to motivate students are very important and it can be done by creating interests and aspirations to create personal meaning and shared understanding (Bosch, et al., 2019).

Motivation to learn is influenced by external and internal conditions. While extrinsic motivation can complement and enhance intrinsic motivation well, externally imposed tasks and criteria can also reduce the willingness to assume responsibility for learning. The challenge is to make students internalize external goals and rewards that are often more dominant during the learning stage. To encourage intrinsically motivated learning, students should see opportunities to share control and cooperate in planning and implementing the learning process. For example, students should be provided, at least, with the opportunity to understand why a particular goal is useful, if not to select a relevant goal from several options, form an approach, and select an appropriate learning task (Garrison, 1997).

2.2. Previous Related Study

In the Indonesian context, studies on the use of Grammarly have a focus on several areas such as improving students' writing (Karyuatry, et al., 2018), a proofreader in students' writing (Ghufron & Rosyida, 2018), and its strengths and weakness as an online correction tool (Nova, 2018). Nevertheless, still less on exploring the effect of Grammarly on students' self-directed learning.

Related to the studies about Grammarly, Ghufron and Rosyida (2018) obtained that the help of Grammarly software is more effective in reducing errors in students writing than teacher corrective feedback. The 40 participants were evaluated by comparing the students' writing in the experimental and control group. The findings of their study show that the students whose works are evaluated through Grammarly software have better EFL writing skills as the software can help them to reduce the errors they have made significantly. They

also said that learn using Grammarly encourages the students to be autonomous learners as it requires the students to evaluate their works with the help of feedback given by the system.

The study from Karyuantry, et al. in 2018 collaborates with the lecturer and conducts action research that involved 40 students. The result shows that Grammarly can be used as an appropriate tool to minimize errors and improve students writing quality. They also state that Grammarly is an effective tool to help raise students' awareness of how to use the article and chose the right diction in writing.

The prior study from Nova (2018) is purposed to identify the strengths and weaknesses of the Grammarly program as an automated writing evaluation program in evaluating academic writing. It involves the three Grammarly program users with different lengths of experience. He concludes that Grammarly provides useful color-coded feedback with explanation and example, ease of account access, high rate of evaluation speed, and free service for evaluating academic writing. However, some weaknesses found in this online grammar checker are several misleading feedbacks, weaknesses in detecting the type of English and reference list, and lack of context and content evaluation experienced.

In the international field, several kinds of research study about Grammarly; one of them is a study from Cavaleri and Dianati (2016) that study about students' perception toward Grammarly. Another research is from Daniels and Leslie (2013) who explore to what extent Grammarly helps students in the writing process.

Another study from Cavaleri and Dianati (2016) investigate students' perceptions toward Grammarly. The participants are from two Navitas colleges, the Australian College of Applied Psychology (ACAP) and Navitas College of Public Safety (NCPS). The results reveal that students perceive Grammarly as useful and easy to use, and students reported that Grammarly improved their writing and understanding of grammar rules.

The research from Daniels and Leslie (2013) explores to what extent Grammarly helps students in the writing process. Twelve students from an intensive English program at Kochi National University were selected to participate in this study. The result shows that the students find Grammarly helpful for catching small grammatical errors (such as article errors) and spelling mistakes that they never would have noticed.

The last study relates to self-directed learning is from Rashid and Asghar (2016). This study aims to inspect a path model with technology use, student engagement, self-directed learning, and academic performance among undergraduate students. 761 students respond to an online survey that is done by the researchers. The results show that the use of technology has a direct positive relationship with students' engagement and self-directed learning; however, there is no significant direct effect is found between technology use and academic performance.