The Effect of Social Interaction and Internet Utilization on Students’ Self-Regulated Learning

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Abstract

This study aims to analyze students' social interactions, internet use, self-regulated learning, and the influence of social interaction and internet use on self-regulated learning of students at SMP Islam Al-Azhar 5 Cirebon. This research is a quantitative study with a population of 180 students of class VIII SMP Islam Al-Azhar 5 Cirebon which were chosen using random sampling. In this study, questionnaires and documentation were used to collect data. Multiple linear regression was employed in the data analysis approach. According to the findings of this study: (1) the level of students’ social interaction of 62% belongs to the fairly good category, (2) the level of student’s internet utilization by 59% belongs to the fairly good category, (3) the pearson correlations product moment value of social interaction and internet utilization on students’ self-regulated learning of 0.735 has a strong or high correlation, meaning "There is a significant effect of social interaction and internet use on self-regulated learning of students of SMP Islam Al-Azhar 5 Cirebon". The magnitude of the effect based on the analysis of the coefficient of determination is 53.2% while the remaining 46.8% is influenced by other variables not included in the research model.
INTRODUCTION

Education is based on the interaction between educators and students in achieving educational goals that take place in a certain environment. This setting is managed and supervised in order to steer learning activities in accordance with educational goals (Tyas, 2017; Widjajanti, 2011). Education functions to help students in their self-development, namely the positive development of all their potential, talents, and personal qualities, both for themselves and their surroundings. This is in accordance with Law Number 20 of 2003 concerning the National Education System as stated in Article 1 Number 20 which states that learning is a process of interaction of students with educators and learning resources in a learning environment (Fahri & Qusyairi, 2019).

The affective aspect is the focus of this study because the affective aspect is related to students' attitudes as a supporter of success in the learning process, more specifically in terms of doing tasks that require perseverance and tenacity in completing them. Self-regulated learning is an affective aspect that must be possessed by students which has a significant influence on students' success in achieving learning objectives. Learning is influenced not just by external factors, but also by self-regulated internal factors (Chung, 2000; Pravesti et al., 2022). Students who have good self-regulated learning abilities can get good results in the process of achieving learning objectives.

There are factors that influence students' self-regulated learning abilities. Based on literature studies that have been carried out, these factors include social interaction and management of media or learning tools (Barnard et al., 2009; Mutiara & Rifameutia, 2021). Social interaction is needed in forming self-regulated learning (Latipah, 2017; McCombs & Marzano, 2010). Social contact is a dynamic connection that brings people, groups, and human groupings together (Bali, 2017).

Self-regulated learning is one of the important concepts in social learning (Kristiyani, 2016; Pintrich, 2000). Good self-regulated learning abilities can provide confidence and motivation to be able to change their behavior in social interactions. Students who communicated poorly or isolated and could not adapt to their social environment could be changed by themselves through self-regulated learning (Fathurohman, 2017).

Another factor is the use of media or learning facilities. Paunov in Korkmaz (2022) argues that the internet can increase innovation, encourage social interaction between friends and wider social networks. Wise use of the internet as a learning resource will facilitate the student's learning process, so it can be relied upon to make it easier to achieve learning goals and further develop learning achievement (Husain, 2014). The use of technology in the learning process assists to supply more new items in the construction of knowledge rather than new ways of completing other jobs (Lesh, 2000; Rahmadian et al., 2019).

The purpose of this research was to analyze the influence of social interaction and internet use on self-regulated learning in SMP Islam Al-Azhar 5 Cirebon.

METHOD

The type of research used in this research is quantitative research. This research is an exploration between the influence of social interaction and internet use on self-regulated learning which is obtained by using the survey method, where research is carried out in natural or non-artificial spaces and researchers carry out treatments in data collection.

The population in this study were all students of class VIII at SMP Islam Al-Azhar 5 Cirebon, totaling 180 students spread over six classes. Sampling in this study using random sampling technique as many as 108 students. The variables in this study consisted of independent variables (X1) in the form of social interaction; The independent variable (X2) is internet utilization and the dependent variable (Y) is self-regulated learning.

A questionnaire with an interval scale was used to examine a person's attitudes, views, and
perceptions concerning social phenomena, and documentation was utilized to gather data relating to parts of the research that had been created, such as class lists and student lists. The instrument used in this research is a questionnaire statement or question that will be given to respondents.

A multiple linear regression analysis approach was utilized to evaluate the hypothesis. However, before the analysis is carried out, first the instrument test and classical assumption test are carried out using the SPSS application.

RESULTS AND DISCUSSION

Social Interaction in Self-Regulated Learning

Social interaction on the self-regulated learning can be seen by the scoring that got the highest frequency is the interval class 113–118 in 28 times. It was found that 41 (38%) students were below the average score and 67 (62%) students were above the average score, so it can be concluded that most of the social interaction scores of the students of SMP Islam Al-Azhar 5 Cirebon are above the average score. The social interaction bar chart can be seen in Figure 1.

![Bar Chart of Social Interaction Frequency Distribution](image)

**Figure 1.** Bar Chart of Social Interaction Frequency Distribution

Based on the results of research on social interaction in self-regulated learning for students of SMP Islam Al-Azhar 5 Cirebon, there is a significant effect of Social Interaction on Self-Regulated Learning for Students at SMP Islam Al-Azhar 5 Cirebon. If students' social interaction increases, the students' self-regulated learning abilities also increase, and vice versa. This finding implies that the social interaction ability of SMP Islam Al-Azhar 5 Cirebon on how to organize themselves in learning related to cognition, motivation and behavior, is proven to be influenced by student social interactions that appear in the form of individual roles, interaction goals, and involvement or participation.

As in this study it was explained that social interaction is a relationship of two or more people, both individuals and groups that dynamically influence each other, can change the behavior and way of thinking of individuals. Through the process of the relationship, individuals will improve or worsen behavior based on activity. These relationships influence each other and change ways of thinking and behavior, it is hoped that a dynamic relationship will be achieved.

The high ability of students to interact will easily be able to adapt to their environment and they will not have difficulty getting along with other people. On the contrary, students who have low interaction skills will experience obstacles in getting along in their environment. Students' social interactions with friends at school have an important role in development (Handono & Bashori, 2013). Self-regulated learning is one of the important concepts in social learning (Kristiyani, 2016; Pintrich, 2000). Good self-regulated learning abilities can provide confidence and provide motivation to be able to change their behavior in social interactions, where previously students communicated poorly or isolated students and students who could not adapt to their social environment could be changed by themselves through self-regulated learning (Fathurohman, 2017). Bandura formulates through social observation and Social Learning Theory that accommodates human cognitive talents in thinking and learning (Bandura, 1988; Kristiyani, 2016). This theory holds that social and cognitive processes are critical to understanding human motivation, emotion, and behavior (Abdullah, 2019).

Bandura's Social Cognitive Theory can be related to the three factors that can influence a person in increasing self-regulated learning. The
first is the individual factor with the findings, namely the existence of diverse knowledge possessed by students which makes students aware that social interaction is important so that from this thinking arises the student's desire to improve self-regulated learning by interacting with friends, teachers, and the environment. When interacting with their social environment, students will receive additional information, can imitate the learning strategies used by their friends, allow them to evaluate their learning abilities based on the suggestions obtained, and can rely on each other's emotional support to improve their learning motivation (Irsyadella, 2020).

The second factor is behavior, if it is associated with the findings, it can be concluded that students finally understand the weaknesses in learning and try to improve self-regulated learning by engaging in social interaction. The behavioral aspect also includes the application of learning strategies by involving active individual control over the resources they have, such as managing study time, arranging a learning environment, and proactively seeking guidance and information from help from others around them. Active help-seeking behavior which is included in one of the self-regulated learning strategies basically requires students to be aware of the need for help, making decisions, and placing the necessary help in their learning actions (Wong et al., 2021).

The third factor is the environment where students who are initially not confident when interacting with their environment continue to receive support from teachers and friends that they can improve their self-regulated learning abilities by interacting. They also ensure that shyness and fear do not become obstacles in interacting with others. others. Through these three efforts, namely the individual, behavior and environment, it ultimately drives individuals who previously had low self-regulated learning to be motivated to improve themselves to be better so that they are able to self-regulate in learning and believe that they actually have the ability to interact well with their environment.

Utilization of the Internet in Self-Regulated Learning

Utilization of the internet on the self-regulated learning can be seen by the scoring that got the highest frequency is the interval class 94–101 in 31 times. It was obtained that 45 (41%) students were below the average score and 63 (59%) students were above the average score, so it can be concluded that most of the scores for internet utilization for students of SMP Islam Al-Azhar 5 Cirebon are above the average score. The bar chart of internet utilization can be seen in Figure 2.

![Figure 2. Bar Chart of Internet Utilization Frequency Distribution](image)

Based on the results of research on the use of the internet in self-regulated learning for students of SMP Islam Al-Azhar 5 Cirebon, there is a significant effect of Internet use on Self-Regulated Learning for students of SMP Islam Al-Azhar 5 Cirebon Al-Azhar 5 Cirebon. If students' internet utilization increases, the students' self-regulated learning abilities also increase, and vice versa. This finding implies that the ability to use the internet of students of SMP Islam Al-Azhar 5 Cirebon on how to organize themselves in learning cognition, motivation and behavior, is proven to be influenced by students' internet use which appears in the form of students' understanding and attitudes towards the concept of the internet as a learning resource, availability of the internet as a learning resource, the accuracy of the internet's function as a learning resource, the intensity of students accessing information from the internet, and the facilities that are often used in learning.
This can motivate students to independently search, fulfill, enrich and study learning resources, or in other words, not depending on, waiting for directions or materials, but trying to fulfill their own learning resource needs, including enriching, exploring, and studying material. Students with self-regulated learning have control over activities and are responsible for choosing, both objects and learning tools and tools. Proactive, initiative, adaptive attitude, willingness to continue learning, taking control and the freedom to choose and learn something that is considered important to learn is what then encourages individuals to use the internet as a learning resource.

This is easy to understand because there is no search, learning and exploration media that exceeds the internet in speed, convenience, richness, and diversity of learning resources, other than that the internet is not limited by place, space and time. This can also be an explanation of the contribution of self-regulated learning to the use of the internet as a learning resource. This is in line with the results of previous studies that students benefit from using the internet as a learning resource, namely making it easier to learn, getting additional information, increasing knowledge, increasing variety of information, facilitating task completion (Anwar & Santa, 2018; Munir, 2009).

This explanation is in line with Gordon Pask and Bernard Scott's Cybernatic Theory which states that information systems are seen as playing a very important role in facilitating the delivery of learning material to be presented to students. Another assumption of cybernetic theory is that there is no single learning process that is ideal for everything and suitable for all students, because the way of learning is determined by the information system (Suciati & Irawan, 2001; Warsita, 2018).

Based on this theory, the use of the internet has an influence on self-regulated learning, where students' independence will be formed from the way students express their own reading of material books and are assisted by teachers when they experience difficulties. So the teacher does not continuously dictate to students in solving problems but guides them according to their difficulties, in other words students can obtain information about learning through the use of the internet. Sasmita (2020) also stated that the facilities owned can be an important component in learning activities, especially as learning resources, so as to increase the use of the internet and students' self-regulated learning.

Research shows the choice of using the internet because it is considered relatively faster, cheaper, and easier than other media. Through the internet, students can quickly and easily explore their interests and find information beyond what is accessible in schools and local communities (Juwandi & Widyana, 2019). The internet can meet the needs of students, especially those related to the needs of learning resources. The internet provides fast access to various news, journals, scientific articles and other databases that make the internet an important source of information.

The theory from the experts above explains how important the use of the internet for Self-Regulated Learning is for students. They will grow into a generation that is more creative and interactive, because by using the internet students will find it easier to get a variety of information which can also encourage students to be more creative. Therefore, the use of the internet in the learning process will be a new strategy to make learning more interesting, because they can control the use of the internet according to its original function.

Learning facilities are external factors that support student learning outcomes at school. The existence of internet facilities that are used by students as a source of learning, students get new learning media and knowledge more quickly. Students can use the internet as an independent study material with the aim of increasing student knowledge related to social studies understanding. Students are no longer looking for books in the library as material for doing social studies assignments. Students get the material needed quickly by using the
intern. Based on this explanation, it can be concluded that the internet can be used as an electronic learning medium that supports student self-regulated learning.

It can be seen that students of SMP Islam Al-Azhar 5 Cirebon can use the internet wisely as a learning resource that can increase knowledge, students use the internet to complete school assignments, and use social media to discuss and consult about subject matter with teachers and friends. However, there are students who have not optimally used the internet for activities related to learning. Where students prefer to use the internet for activities related to entertainment such as playing games, watching YouTube than looking for learning materials.

Wise use of the internet as a learning resource will facilitate the student's learning process, so it can be relied upon to make it easier to achieve learning goals and further develop learning achievement. Intensive and wise use of the internet can encourage students to self-regulate in learning because with proper use, students will get more information and knowledge, so that students can more easily understand school materials and assignments which will ultimately increase self-regulation.

The Effect of Social Interaction and Internet Utilization on Self-Regulated Learning

Self-regulated learning can be seen by the scoring that got the highest frequency is the interval class 113–119 in 35 time. It was found that 34 (31%) students were below the average score and 74 (69%) students were above the average score, so it can be concluded that most of the self-regulated learning scores of students of SMP Islam Al-Azhar 5 Cirebon are above the average score. The bar chart of self-regulated learning can be seen in Figure 3.

![Figure 3. Self-Regulated Learning Frequency Distribution Bar Chart](image)

Hypothesis Test Result

<table>
<thead>
<tr>
<th>Table 1. Multiple Correlation Test</th>
<th>(X1)</th>
<th>(X2)</th>
<th>(Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.425 **</td>
<td>.569 **</td>
</tr>
<tr>
<td>(X1) Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>108</td>
<td>108</td>
<td>108</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.425 **</td>
<td>1</td>
<td>.663 **</td>
</tr>
<tr>
<td>(X2) Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>108</td>
<td>108</td>
<td>108</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.569 **</td>
<td>.663 **</td>
<td>1</td>
</tr>
<tr>
<td>(Y) Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>108</td>
<td>108</td>
<td>108</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Based on Table 1, a summary of the results of the correlation test can be seen between social interaction (X1) and self-regulated learning (Y) and internet utilization (X2) and self-regulated learning (Y).

Variable Correlation X1 with Y

The pearson correlation value of social interaction (X1) with self-regulated learning (Y) is 0.569. This correlation value is in the range of 0.400 to 0.599 which means that the level of
relationship between the two variables X1 and Y has a moderate or sufficient level of relationship, and has a significance value of 0.000<0.05.

**Variable Correlation X2 with Y**

The Pearson correlation value of internet utilization (X2) with self-regulated learning (Y) is 0.663. This correlation value is in the range of 0.600 to 0.799 which means that the level of relationship between the two variables X2 and Y has a strong or high level of relationship, and has a significance value of 0.000<0.05.

**Table 2. Multiple Linear Regression Test Coefficients a**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>24.042</td>
<td>8.703</td>
<td></td>
<td>2.763</td>
</tr>
<tr>
<td>(X1)</td>
<td>.378</td>
<td>.079</td>
<td>.351</td>
<td>4.799</td>
</tr>
<tr>
<td>(X2)</td>
<td>.507</td>
<td>.072</td>
<td>.514</td>
<td>7.037</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Self-Regulated Learning (Y)

Based on Table 2 above, the calculation of multiple linear regression using the SPSS version 22.0 for windows program obtained the following results:

\[ Y = 24.042 + 0.378X_1 + 0.507X_2 \]

\[ \text{Constant} = 24.042. \]

This means that if there are no Social Interaction (X1) and Internet Utilization (X2) variables that affect Self-Regulated Learning (Y), then Self-Regulated Learning (Y) is 24,042 units.

**Table 3. t-test (Partial) Social Interaction**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable</th>
<th>t table</th>
<th>t count</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is an influence between (X1) on (Y)</td>
<td>Social Interaction (X1)</td>
<td>1.982</td>
<td>4.799</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Based on the results of hypothesis testing in table 3. using a partial test (t test) obtained tcount of 4.799 with a significance value of 0.000. This is in accordance with the test criteria showing that \( t_{\text{count}} > t_{\text{table}} : 4.799 > 1.982 \) with a significance level of 0.000<0.05. Thus it can be understood that H1 is accepted, meaning "There is a significant effect of Social Interaction on Self-Regulated Learning of Students of SMP Islam Al-Azhar 5 Cirebon".

**Table 4. T-test (Partial) Internet Utilization**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable</th>
<th>t table</th>
<th>t count</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is an influence between (X2) on (Y)</td>
<td>Internet Utilization (X2)</td>
<td>1.982</td>
<td>7.037</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Based on the results of testing the hypothesis above using a partial test (t test) obtained tcount of 7.037 with a significance value of 0.000. This is in accordance with the
test criteria showing that $t_{\text{count}} > t_{\text{table}}$ ie $7.037 > 1.982$ with a significance level of $0.000 < 0.05$. Thus it can be understood that $H_2$ is accepted, meaning "There is a significant effect of Internet Utilization on Self-Regulated Learning Students of SMP Islam Al-Azhar 5 Cirebon".

**Table 5. Simultaneous Test (F Test)**

<table>
<thead>
<tr>
<th>F ( \text{count} )</th>
<th>61.811</th>
</tr>
</thead>
<tbody>
<tr>
<td>F ( \text{table} )</td>
<td>3.08</td>
</tr>
<tr>
<td>Significant F</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Based on Table 6 shows the magnitude of the coefficient of determination = 0.532, meaning that the variables of Social Interaction (X1) and Internet Utilization (X2) jointly affect Self-Regulated Learning (Y) by 53.2% with the remaining 46.8% influenced by other variables not included in the research model.

**Table 6. Determination Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.735 a</td>
<td>.541</td>
<td>.532</td>
<td>7.399</td>
</tr>
</tbody>
</table>

Predictors: (Constant), (X2), (X1)

Based on the results of the F test in Table 5, testing the hypothesis using the simultaneous test (Test) obtained F\( \text{count} \) of 61.811 and F\( \text{table} \) of 3.08 with a significance value of 0.000. This is in accordance with the test criteria showing $F_{\text{count}} > F_{\text{table}}$ which is $61.811 > 3.08$ while the sig value is $0.000 < 0.05$ from alpha level 0.05 so that $H_3$ is accepted which means "There is a significant effect of Social Interaction and Internet Utilization on Self-Regulated Learning for SMP Islam Al-Azhar 5 Cirebon.

Self-regulated learning is an affective aspect that must be possessed by students which has a significant influence on students' success in achieving learning objectives. Learning is influenced not just by external factors, but also by self-regulated internal factors. There are factors that affect students' self-regulated learning abilities, including social interaction and management of media or learning facilities. Good self-regulated learning abilities can provide confidence and provide motivation to be able to change their behavior in social interactions, where previously students did not communicate well or isolated students and students who could not adapt to their social environment could be changed by themselves through self-regulated learning. In addition, the use of the internet has become an important means for individuals to easily access information. Of course, students with good self-regulated learning abilities can properly utilize information sources to become knowledge.

According to Bandura's Social Cognitive Theory, self-regulated learning is not only determined by process factors within students, but also influenced by environmental factors and behaviors that occur reciprocally. The things...
that influence individuals to carry out self-regulation are the awareness of students that carrying out a social interaction is very important because humans cannot live alone, students try to learn to develop life goals, and there is support from the people around them who motivate them students to continuously improve themselves.

The Cybernatic Theory of Gordon Pask and Bernard Scott which states that information systems are seen as playing an important role in facilitating the delivery of learning materials that will be presented to students. Another assumption of cybernatic theory is that there is no one learning process that is ideal for everything and is suitable for all students, because the way of learning is largely determined by information systems. This theory states that the use of the internet has an influence on self-regulated learning, where students' independence will be formed from the way students express their own reading of material books and are assisted by teachers when they experience difficulties.

Based on the theories above, it further strengthens that social interaction and the use of the internet play an important role in increasing self-regulated learning for students of SMP Islam Al-Azhar 5 Cirebon where this is in accordance with the research results obtained in this study.

CONCLUSION

Based on the research problem that has been formulated and the results of the research that has been carried out, it can be concluded that the social interaction of students of SMP Islam Al-Azhar 5 Cirebon is classified as quite good with an average of 62%. The social interaction of students has a significant influence on Student Self-regulated Learning. If students' social interaction increases, the students' self-regulated learning abilities also increase, and vice versa. Social interaction and the use of the internet on students' self-regulated learning have a strong or high correlation, as seen from the SPSS output results with the Pearson correlations product moment value of 0.735. This correlation value is between 0.600 to 0.799 has a strong or high relationship at a significance level of 5%. Thus it can be understood that H3 is accepted, meaning "There is a significant effect of social interaction and internet use on self-regulated learning of students of SMP Islam Al-Azhar 5 Cirebon". The large influence of social interaction and internet use on self-regulated learning of students of SMP Islam Al-Azhar 5 Cirebon based on the analysis of the coefficient of determination is 53.2% while the remaining 46.8% is influenced by other variables not included in the research model.

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