The research entitled the effectiveness of online learning on the learning outcomes of elementary school students, while the purpose of this study was to obtain information about the effectiveness of online learning on student achievement, especially in grades IV and V. This research was conducted at Al Ikhlas Islamic Elementary School, South Jakarta, Indonesia. The method used in this study is a quantitative descriptive approach, the instrument used as an indicator to explore the effectiveness of online learning by using a questionnaire as an instrument. The population this study were students in grades IV A, IV B, V A, VB and VC who were taken randomly, totaling 94 respondents using random sampling. Data analysis used a simple linear regression test with a significant level of 0.05 (5%). Based on the results of the calculation of a significant value of 0.000<0.05, it can be concluded that the effectiveness of online learning on student achievement has a regression equation, this is proven by the results of statistical tests using the T-test and the calculation results obtained are 11,064>1,661, with significance level 0.000<0.05. While the effectiveness of online learning on student achievement is obtained a value of 75.6% through the calculation of the coefficient of determination. The results of this study indicate that there is quite a significant or low influence on online learning on student achievement.

Keywords: Effectiveness, Online Learning, Learning Outcomes.
Research Methods

The method used in this research is a quantitative approach with a survey method. The aim is to determine the effect of online learning on student achievement at SDI Al-Ikhlas, South Jakarta, Indonesia. The population of this study involved 123 students consisting of 23 students in 4A, 25 in 4B, 23 in 4C, in 5A, and 26 in 5B. The sampling technique in this study is using a simple random sample technique (sample random sampling).

The instrument used in this research is a questionnaire in the form of statements that have been validated. Questionnaire statement items amounted to 48 statements related to the independent variable and the dependent variable. While the data analysis technique uses simple regression analysis to determine the effectiveness of online learning on student learning outcomes, data analysis is used with the help of the SPSS version 22 application.

Literature Review

Online learning, the learning process is moved from school to home, which is a government decision to have a direct impact on learning institutions. Schools carry out a circular from the government to replace the education process which was originally face to face to online education. Online education is a new method in the educational process by replacing face to face education with online education where the learning process uses electronic equipment such as cellphones, laptops, or the internet in presenting learning modules. According to Sadikin (2020), revealed that online education is education that uses internet networks with accessibility, connectivity, flexibility, and expertise to create various types of educational interactions, taking into account the current situation teachers are required to be read to implement online learning process.

Characteristics of Online Learning

The characteristics of online learning based on Zagir & Dores (2017) namely: a. Individual learning is online learning that is done by the students themselves. It takes independence in the learning process and can master the material given by the teachers; b. Systematic and structured. Before starting to learn online, teachers need to prepare teaching materials while learning. Teaching materials must be prepared according to the level, from easy to difficult; c. Focusing on student activity, student activity in learning occurs because learning is more fun and meaningful by students, how online learning focuses students on learning by utilizing existing technology; d. Connectivity, students and teachers connect online learning with internet access through online learning applications.

Based on the statement above, it can be concluded that the characteristics of online learning are using electronic media, learning is carried out using the internet, learning can be carried out anytime and anywhere and online learning is open.

The Purpose and Benefits of Online Learning

In accordance with Circular Number 15 of 2020 concerning Guidelines for Organizing Studying at Home (Covid-19), during the Emergency Period for the Transmission of Corona Virus Disease, it is explained that the objectives of implementing home learning during Covid-19 are: a. Ensuring the fulfillment of student’s right to access education services in a Covid-19 emergency; b. Protecting citizens of educational institutions from the adverse effects of Covid-19; c. Preventing the spread of Covid-19 in education units; d. Ensure to provide psychosocial support for educators, students and parents/guardians.

Based on the explanation above, it can be concluded that online learning definitely has different benefits and goals for everyone. Online learning provides students with an unprecedented new learning experience.

Principles of Implementation of Online Learning

Bifaqih (2015), show that quality online learning includes several principles, including: Identification of student learning outcomes, covering aspects of skills, attitudes, and knowledge, creating evaluation strategies that are appropriate for learning outcomes, designing good learning activities to help students achieve the goals of their attitudes, knowledge, and learning skills, presenting teaching materials that encourage student activity, learning to form knowledge from an easier level to a higher level, there is a balance between challenge, social interaction, cognitive freedom and material delivery.

Learning at home is done through distance learning. There are two approaches: Distance learning online, and distance learning offline. In carrying out online distance learning, you can use learning media such as laptops or cellphones through several online learning application. Teachers can apply offline learning through television, including home learning programs, radio, modules, printed materials, materials, media from objects and the environment. From the perspective of good online learning design, it is important for teachers to ensure students feedback and
communication while studying during a pandemic. Effective interaction and communication is expected to increase student learning activities. When designing this online learning, teachers need not only focus on videos, but also use learning platforms to support online learning activities.

Based on some of the opinions of the experts mentioned above, the researcher concludes that the implementation of online learning is of course supported by several media and learning platforms available for online learning, which need a network of teachers and students during learning to be carried out. The implementation of online learning for teachers is to prioritize the implementation of distance learning online, offline or the availability of learning facilities and collaboration of both according to the situation.

According to Sri Harmani (2020), states that the online learning system (on the network) is a learning system without face to face directly between teachers and students but is carried out online using the internet network. Teachers must ensure teaching and learning activities, even though student are at home, the solution is that teachers are required to design learning media as innovations by utilizing online media.

Furthermore, according to Hadi & Athallah (2021), communication in a network or virtual communication is a way of communicating where the delivery and receipt of information or messages is done using the internet, or through cyberspace. Virtual communication in this century can be done anywhere and anytime. One form of virtual communication that is carried out one everyone who is assisted by internet media.

Meanwhile, according to Handarini & Wulandari (2020), said if there are some platforms or learning implementations can be used for learning activities such as websites, zoom, whatsapp, edmodo, and others. The online / online learning process can be tried by combining the learning process through the various learning sources presented, for example preparing a data collection as a reading source, teaching materials, power points, photo media, or audio visuals in supporting the education process to run well and smoothly.

Based on the opinions of the experts mentioned above that in general, humans in the digitalization era must be able to adapt to technological developments, implementation degradation arises due to the spread of Covid-19, so that changes occur quickly and suddenly. This technology makes an effort to interact between teachers and students in carrying out the indirect learning process. Activities that were usually carried out before the Covid-19 pandemic were face to face, the learning media used could be in the form of student and objects near us around the school. When education is carried out online, it is a different matter. All the facilities or equipment that teachers usually use concretely, have turned into depiction media because of distance limitations.

**Learning Outcomes**

In essence, learning outcomes cover all psychological domains that turn into experience and student learning process. In this case, educators can participate in behavioral changes that are considered important. This may reflect changes emerging from student learning with dimensions of creativity and taste and intention. Based on the opinion of W.S. Winkel Bloom, a psychology book explaining taxonomic theory by the Bachelor of sciences discusses and comments on Bachelor of Science theory. Bloom revealed that students learning goals are aimed at achieving 3 domains. The three domains are cognitive, emotional, and psychomotor. In the process of education and learning, these three areas also determine student success in obtaining learning outcomes, as well as student performance in learning. Learning outcomes are assessed from the performance of students in mastering the three domains.

More specifically, the cognitive areas derived in the theory of B.S. Bloom, includes: Cognitive (cognitive), this includes actions that require intellectual aspects such as knowledge, understanding, and thinking skills. B.S. Bloom spread the cognitive area into six levels, namely: 1) knowledge means the ability to recognize and remember terms, definitions, facts, ideas, patterns, sequences, methodologies, basic principles and so on. Knowledge is also defined as the ability to remember what you have learned and stored in memory, 2) comprehension is defined as the ability to understand the meaning and significance of the material being studied. Comprehension is recognized by the ability to read and understand explanations, tables, reports, charts, instructions, rules, etc, 3) application is described as the ability to apply a rule or method to address a particular new case/problem. At this level, the individual has the ability to apply procedures, ideas, formulas, methods, theories, etc, 4) analysis (analysis) is defined as the ability to divide the whole into parts because it provides a good understanding of the overall organizational structure. At the analytical level, one can examine incoming information, break it down into smaller pieces, or organize it to identify patterns and relationships and distinguish between cause and effect in complex matter. 5) Synthesis is defined as the ability to create new units and patterns. Individuals at the synthesis level can define a never before seen structure or pattern of scenarios and identify the data or information

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needed to create the required solution, 6) evaluation is defined as the ability to form an opinion on one or more things by using certain criteria and being responsible for that opinion. Assessment is known for its ability to evaluate solutions, ideas, and method using appropriate or existing criteria and to determine the value of their effectiveness or usefulness.

Achievement Criteria for Learning Outcomes

According to Heinich, there are several benchmarks in assessing student achievement, including: a. The active role of students, runs effectively when students are actively involved in the learning process that interacts and is meaningful with intensive subjects; b. Exercise, carried out in a variety of contexts, can improve student abilities and memory levels to operate the skills of a newly learned knowledge, c. personality differences, each individual has characteristics and distinguished the individual from himself from the others; d. feedback is really needed for students to know and learn the ability of the lesson well; e. real context, individuals learn learning and understanding to be carried out in the form of real situations (Benny, 2009).

In the opinion of Sadikin et al (2020) suggests online learning is a learning activity that has an internet network with connectivity, flexibility, ability and accessibility to form a learning interaction. In essence, learning outcomes cover all psychological domains that turn into experiences and student learning process. In this case, educators can participate in behavioral changes that are considered important. This may reflect changes emerging form student learning with dimensions of creativity and taste and intention. Based on the Opinion of W.S. Winkel Bloom, a psychology book explaining taxonomic theory by the Bachelor of Sciences discusses and comments on Bachelor of Science theory.

Meanwhile, according to Bloom in Katz & Macklin (2007), revealing that student learning goals are aimed at achieving 3 domains, based on these domains include cognitive, emotional, and psychomotor. In the process of education and learning, these three areas also determine student success in obtaining learning outcomes, as well as student performance in learning. Explained that factor that influences pro environmental behavior are also responsible behavior.

Based on some of the opinions of the experts mentioned above about online learning that the online learning process is basically students must be able to adapt to technological developments, and for educators/teachers they must also be able to present technology based learning models that are easy to understand and fun for students, student. In line with this, of course, it will be able to improve student achievement.

Research Findings

Based on the results of research conducted through the results of statistical tests of data analysis, among others: normality test, normality test was conducted, and what data was obtained from normal data from two variables, namely online learning. After using SPSS software version 22 to assist the Kolmogorov-Smirnov Test in processing the data from the normality test, the output display is as follows:

Table 1.

<table>
<thead>
<tr>
<th>Normality Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>94</td>
</tr>
<tr>
<td>Standard Deviation</td>
</tr>
<tr>
<td>Parameter, a.b</td>
</tr>
<tr>
<td>Most Extreme</td>
</tr>
<tr>
<td>Positive</td>
</tr>
<tr>
<td>Differences</td>
</tr>
<tr>
<td>Asympt. Sig.</td>
</tr>
<tr>
<td>(2-tailed)</td>
</tr>
</tbody>
</table>

Based on the table above, the P_value Sig. 0.200, obtained from the normality test conducted by Kolmogorov Smirnov, which means that it is greater than 0.005 (0.200>0.05). Thus it can be concluded that the variances of all variables are normally distributed.

Homogeneity Test

After using the Levene Test assisted by SPSS software version 22 to process data based on the results of the homogeneity test, the output display is as follows:

Table 2.

<table>
<thead>
<tr>
<th>Homogeneity Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test of Homogeneity of Variance Online Learning</td>
</tr>
<tr>
<td>Levene Statistic</td>
</tr>
<tr>
<td>.883</td>
</tr>
</tbody>
</table>

The results of the table above are homogeneity tests using the Levene test, the p-value sig is 0.883>0.05, and the decision significance values is greater than 0.05. It can be concluded that the variance of all variable is homogeneous.
**Simple Regressions Test**

Regression test is a test to find values between variables and measure the magnitude of the strength of influence and to estimate the magnitude of influence between variables, with the tools used, namely SPSS version 22 software to process data from a simple regression test, the following results are obtained:

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Squares</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5997.435</td>
<td>1</td>
<td>5997.435</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>4507.044</td>
<td>92</td>
<td>48.990</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10504.479</td>
<td>93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the output above, it can be seen that the correlation value of R is 0.756. The output obtained is a coefficient of determination of 0.571 \((R^2)\) which means the effectiveness of the influences of independent variable on online learning on student achievement is 75.6%. This means that about 24.4% of the influence of online learning may be influenced by other factors, but these factors are not studied, and similar research can be carried out with different variable.

**Hypothesis Test (T Test)**

Hypothesis testing can see whether there is on online learning effectiveness between the influence of the X variable (independent) and the variable Y (independent) student learning outcomes.

<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>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>22.018</td>
<td>5.834</td>
<td>3.774</td>
<td>.000</td>
</tr>
<tr>
<td>.732</td>
<td>.066</td>
<td>.756</td>
<td>11.064</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: learning achievement

The results of the hypothesis test (t test) show that \(t_{count} \) is greater than \(t_{table} \), namely 11.064>1,661 with a significance value of 0.000<0.05, with this Ho is rejected while Ha is accepted. It can be said that online learning has an effect on student achievement. The magnitudes influence of online learning on student achievement is 75.6% and can be categorized as strong or great influence. In addition, there are 24.2% of other factors that have and influence on student achievement that were not examined by researchers.

The increase in the achievement of high grade students learning outcomes, namely in grades 4 and 5 through the results of the \(R^2\)
value, obtained the results of the (+) effect, but the effect can be fairly high or large, namely 75.6%. It can be interpreted that 24.4% of student learning outcomes are influenced by other factors.

Conclusion

Based on the findings of the research at SDI Al-Ikhlas, South Jakarta, Indonesia regarding the motivation of high class students who are influenced by online learning, the following findings are obtained:

1. The effectiveness of online learning has an effect on student learning outcomes in high grade, based on the results of data analysis with a simple statistical regression test, it shows that online learning has an effect on student learning outcomes for high grade students as evidenced by the results of statistical test with a significance value of 0.000<0.05.

2. The magnitude of the influence of online learning on the learning outcomes of high class students through the results of the R_square value, obtained the results of the (+) effect, but the influence can be fairly high or large, namely 75.6%, it can be interpreted that around 24.4% of learning motivation is influenced by other factors.

References


