Effect of Learning Behavior and Intellectual Intelligence on Student Accounting Understanding

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Abstract

Vocational High School students are expected to have the capability to deepen or focus on one field, for example accounting. But in reality students' understanding of accounting is still low, they do not understand the material in the ongoing learning process. That it becomes one of the basic factors that make students unable to take part in learning well. This study aims to analyse the effect of students' intellectual intelligence, and students' learning behavior on accounting understanding. This research uses quantitative research. Primary data is used to obtain basic data with a survey method distributing questionnaires to respondents. The population in this study was 145 people and the sampling in this study used random sampling technique so that the results obtained were 105 students. Classical assumption test used is normality test, multicollinearity test, heteroscedasticity test. Intellectual intelligence is measured by problem solving ability, figure ability, verbal ability and numerical ability. Learning behavior is measured by reading books, attending lessons, studying at home and preparing for exams. For accounting understanding, it is measured by eight concept statements regarding tax accounting, financial accounting, institutional accounting and myob. Based on data processing, the results shows learning behavior has a positive and significant effect on accounting understanding, intellectual intelligence has a positive and significant effect on accounting understanding, and simultaneously intellectual intelligence and learning behavior have a positive and significant effect on accounting understanding.

Keywords: Accounting Understanding, Intellectual Intelligence, Learning Behavior

History:
Received : March 10, 2022
Revised : March 16, 2022
Accepted : June 28, 2022
Published : July 25, 2022

Publisher: Undiksha Press
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1. INTRODUCTION

Vocational high school students have studied more learning material than in the past (Johnes et al., 2017; Pike et al., 2020). This is because at this time students already have a
concentration of learning according to the knowledge taken by each so that students are required to be able to understand each topic given by the teacher (Puspitarini & Hanif, 2019). Understand is to demonstrate not only intelligence, but also broad-mindedness, comprehend indicates seizing something in its unity with some other thing, embracing by thought retaining in memory a combination of mutually linked things (Lindén, 2021; Sharma et al., 2019). Therefore, understanding is something important to be able to take an action. To find out how the condition of students in the class in their understanding of accounting, the researchers conducted interviews with teachers in the field of accounting (Arkorful & Abaidoo, 2015). It was found that students' understanding of accounting is still low, which can be seen from the students' responses when following the lesson, when the teacher finished explaining the material to the students and the teacher asked about the material that had been explained, there were still students who could not answer correctly. Therefore the student does not understand the material in the ongoing learning process, so that it becomes one of the basic factors that make students unable to take part in learning well (Makransky & Petersen, 2019).

The factors that determine the level of accounting understanding are internal factors 1) emotional intelligence, mental attitude and self-reading abilities that will support in achieving the ideals and goals, 2) internal factors, namely learning behavior, behavior good student learning will help him understand a certain material, 3) intellectual intelligence, 4) self-confidence, such as strong mentality needed by students (Church & Samuelson, 2017; Suprianto & Harryoga, 2015). External factors are 1) culture, 2) peers, students who do not or do not understand will ask other students who they think can help themselves, 3) learning facilities, studying accounting there will be several facilities that must be owned or provided by the school such as calculators and computers.

Intellectual intelligence has an important role in the continuity of a child's learning process, this is because intellectual intelligence provides a stimulus to a child to be able to think and process learning materials delivered by other people or teachers. Intellectual intelligence and learning behavior have a positive and significant effect on accounting understanding (Nugroho, 2018). Then the results of previous studies also prove that intellectual intelligence has a positive and significant effect on the level of accounting understanding (Ardiansyah, 2022). It is in contrast to the results of previous studies. The results of another research show different results, where the intellectual intelligence variable has no effect on accounting understanding with a significance level of 0.923 (Kurniansyah & Daveta, 2018). The results of similar research prove that intellectual intelligence has no effect on accounting understanding with a significance level of 0.053 (Hermawan et al., 2021). This raises a contradiction where intellectual intelligence basically does not always have an effect on understanding accounting.

Then the second factor that affects the level of accounting understanding is learning behavior, where at the level of accounting understanding learning behavior is needed to support educational goals. Through learning behavior, educational goals can be achieved effectively and efficiently, thereby improving academic performance (Sedrakyan et al., 2020). Learning behavior has a positive influence on the level of Accounting Understanding (Sari et al., 2018; Schweder, 2020). So if the learning behavior is getting better, the understanding of accounting is also getting better. This statement is in line with the results of similar research shows that learning behavior has a significant influence on accounting understanding (Oemar & Fani, 2018). These results are in line with similar research which proves that there is an influence of learning behavior on accounting understanding (Rusmiani & Widanaputra, 2017). The results of previous research prove that learning behavior has a positive and significant effect on accounting understanding (Nurfajri & Rochmawati, 2021).
Based on the results of previous research and testing it proves that learning behavior has no effect on the level of accounting understanding, it turns out that learning behavior has no effect on accounting understanding (Widyawati et al., 2014). Furthermore, previous research also proves that there is no influence between learning behavior on accounting understanding (Parauba, 2014). From the differences in the results of previous studies, it can be interpreted that learning behavior will not always have a positive influence on a student’s accounting understanding. This bad effect occurs because most students or students find it difficult to concentrate while studying. His spare time is not devoted to reading and only studying before the exam. Based on the background, the objectives of this research are to analyse the effect of learning behavior on students’ accounting understanding, to test the effect of students' intellectual intelligence on students' accounting understanding, to test the effect of learning behavior and intellectual intelligence on students’ accounting understanding.

2. METHODS

This research uses quantitative research with the type of data used is subject data. The data used is primary data. In this study, the primary data is data obtained from respondents through a questionnaire, which will first test the validity and reliability of the questionnaire. The research procedure is the first to determine the focus of the research, then identify the problem, after that develop a conceptual framework and follow with the identification of the hypotheses in the research. The next step is to determine the sampling technique used in the study, then arrange the research instrument, after that collect and quantify the data, after the data is collected, the next step is to analyze the data and interpret the data and end by determining a conclusion from the results of data processing. The population in this study was 145 people and the sampling in this study used random sampling technique so that the results obtained were 105 students. Data collection techniques are methods used to collect information or data needed in research. The data collection technique in this study used a questionnaire. This study uses a normality test, which is to determine whether a data is normally distributed or not, this test can be done by testing one sample Kolmogorov Smirnov on SPSS. Then multicollinearity test, where decision making can be done by looking at the value of variance inflation factor (vif) & tolerance. Furthermore, heteroscedasticity test by means of the glejer test and look at the scatterplots. In this study, the test was carried out using multiple linear regression analysis, t test (partial) to determine the effect of the independent variable partially on the dependent variable. Then the f (simultaneous) test is to test the effect of the independent variable simultaneously on the dependent variable. Furthermore, the coefficient of determination test, this test is carried out to see how much influence the independent variable has on the dependent variable. t test (partial) to determine the effect of the independent variable partially on the dependent variable.

3. RESULTS AND DISCUSSION

Result

Validity refers to the level of accuracy and precision with which the measuring instrument (in this case the questionnaire) performs its measurement function. The validity test in this study was carried out using the Pearson correlation technique and product-moment, namely the score of each item is related to the total score. Based on the results of the study, the significance value of each index of intelligence, learning behavior, understanding of accounting and other variables is less than 0.05. This means that the
indicators of intelligence, learning behavior and understanding of accounting in this research variable are declared valid and appropriate to be used as data collectors. This reliability test is show in Table 1.

**Table 1. Reliability Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Croanbach alpha</th>
<th>Limit Value of Cronbach alpha</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Behavior</td>
<td>0.753</td>
<td>0.60.</td>
<td>Reliable</td>
</tr>
<tr>
<td>Intellectual Intelligence</td>
<td>0.713</td>
<td>0.60.</td>
<td>Reliable</td>
</tr>
<tr>
<td>Accounting Understanding</td>
<td>0.742</td>
<td>0.60.</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Based on Table 1 the reliability test table above, it can be seen that the Croanbach alpha value is greater than 0.60 so it can be concluded that the statement of each variable has met the level of reliability value. Then normality test is show in Table 2.

**Table 2. Normality Test**

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Unstandardized Residuals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>103</td>
</tr>
<tr>
<td>Normal Parameters, b.</td>
<td>Mean.</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
</tr>
<tr>
<td></td>
<td>Absolute.</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Positive.</td>
</tr>
<tr>
<td></td>
<td>Absolute.</td>
</tr>
<tr>
<td>Kolmogorov Smirnov Z</td>
<td></td>
</tr>
<tr>
<td>Asymp Sig. (2-tailed)</td>
<td>0.835</td>
</tr>
<tr>
<td></td>
<td>0.505</td>
</tr>
</tbody>
</table>

Based on Table 2 show that this research is said to be normally distributed data because the significant value is 0.505, which is greater than the real level value of 0.05. Multicollinearity test is show in Table 3.

**Table 3. Multicollinearity Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1</td>
<td>Constant</td>
<td>23.687</td>
<td>4.385</td>
<td>5.214</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Learning Behavior</td>
<td>0.120</td>
<td>0.143</td>
<td>0.438</td>
<td>2.348</td>
</tr>
<tr>
<td></td>
<td>Intellectual Intelligence</td>
<td>0.973</td>
<td>0.179</td>
<td>0.621</td>
<td>6.321</td>
</tr>
</tbody>
</table>

Based on Table 3 show that there is no independent variable that has a tolerance value of less than 0.1% and shows that there is no independent variable that has a vif value of more than 10. So this study does not say that there is no correlation between the independent variable and the variable. Then for heteroscedasticity test is show in Table 4.
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Table 4. Heteroscedasticity Test

<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>4.236</td>
<td>2.543</td>
<td>1,738</td>
<td>1.738</td>
</tr>
<tr>
<td>Learning Behavior</td>
<td>0.037</td>
<td>0.109</td>
<td>0.034</td>
<td>0.285</td>
</tr>
<tr>
<td>Intellectual</td>
<td>0.025</td>
<td>0.071</td>
<td>0.032</td>
<td>0.267</td>
</tr>
</tbody>
</table>

Based on Table 4 by calculating the data with SPSS with the glejer method, the significance value for is obtained variable \( X_1 \) learning behavior is worth 0.698 and variable \( X_2 \) intellectual intelligence is 0.759, where the value is > from 0.05, the independent variable does not occur heteroscedasticity.

Multiple Linear Regression Analysis

In determining the multiple linear regression analysis result the researcher conduct several test including, T-test, F-test, and Test the coefficient of determination. T-test analysis is show in Table 5.

Table 5. T-test Analysis

<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>5.214</td>
</tr>
<tr>
<td>(Constant)</td>
<td>23.687</td>
<td>4.385</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Behavior</td>
<td>0.120</td>
<td>0.143</td>
<td>0.438</td>
<td>2.348</td>
</tr>
<tr>
<td>Intellectual</td>
<td>0.973</td>
<td>0.179</td>
<td>0.621</td>
<td>6.321</td>
</tr>
</tbody>
</table>

Based on Table 5 it show the significance value of the \( X_1 \) variable is 0.002 < 0.05 and the t-count is 2.348 > 1.983, then \( H_0 \) is accepted and \( H_a \) is rejected and the significance value of the \( X_2 \) variable is 0.000 < 0.05, t-count is 6.321 > 1.983. Then \( H_0 \) is rejected and \( H_a \) is accepted. Then F-test analysis is show in Table 6.

Table 6. F-test Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares.</th>
<th>df.</th>
<th>Mean Square.</th>
<th>F.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1375.538</td>
<td>2</td>
<td>760,258</td>
<td>24.583</td>
<td>0.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>2835,275</td>
<td>100</td>
<td>28,341</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4209,806</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 6, it is known that the significance value for the influence of the variables \( X_1 \) and \( X_2 \) together on \( Y \) is 0.000 < 0.05 and the calculated f value is 24.583 > 3.09, so it can be concluded that the variables of learning behavior and intellectual intelligence have a joint effect on the variable of accounting understanding. The coefficient of determination test is show in Table 7.
Table 7. Test the Coefficient of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>R.</th>
<th>R Square.</th>
<th>Adjusted R Square.</th>
<th>Standard Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.689</td>
<td>0.458</td>
<td>0.534</td>
<td>5.638</td>
</tr>
</tbody>
</table>

Based on Table 7 is show that the R square value is 0.458. This result shows that the variables of intellectual intelligence and learning behavior have a joint effect on accounting understanding by 45.8% and the remaining 54.2% is influenced by other factors outside the existing variables.

Discussion

**The Effect of Learning Behavior on Accounting Understanding**

Learning behavior has a positive influence on the level of accounting understanding, which can be seen from the results of the t test which shows that the learning behavior variable partially has an effect on the variable level of accounting understanding with a significance level of 0.002. It can be interpreted where students state that learning behavior factors can help them in understanding accounting, because behavioral indicators of reading books, attending lessons, studying at home, and preparing for exams are things that can help students in supporting accounting understanding, the better or more often the four indicators If this is done, the understanding of accounting will be better too. This is supported by the previous research which states that the learning behavior variable has a positive and significant effect on accounting understanding (Halilovic & Cicic, 2013). Then the results of this study are supported by similar research which shows that learning behavior has a positive and significant effect on accounting understanding where t is 3.244 and the significance level value is 0.002 < 0.05, because the significance level is smaller than 0.05. Then this proves that learning behavior has a significant positive effect on the level of accounting understanding. (Rokhana & Sutrisno, 2016).

Furthermore, this study is in line with the results of previous research which proves that learning behavior has a positive effect on accounting understanding with a significance level of t of 0.000 (Wardani & Ratnadi, 2017). The results of this study are also similar to the results of research which proves that learning behavior affects the level of accounting understanding with a significance value of 0.000 < 0.05 (Harwathy, 2021). Then also previous research which prove that there is an influence between learning behavior on the level of accounting understanding with a significance value below 0.05 (Ariani, 2016). Learning behavior can affect the level of accounting understanding with a significance value of 0.048 (Yuliarini & Gultom, 2020).

There is an effect of learning behavior on students' accounting understanding with a significance level of 0.003 (Hardini et al., 2021). Learning behavior will target different levels of knowledge, skills, competences, or simply task completion, which also determines how learners engage with the learning process (Winne et al., 2013). Learning behaviors can be defined as the thoughts, feelings, and actions that are planned and adapted by an individual to attain a goal. It is more than simple attempts to gain knowledge, as self-regulation implies that learners become aware of their learning, and make motivational and behavioral adjustments to attain and implement knowledge more effectively (Colthorpe et al., 2019).

Measures of learning-related behavior, sometimes referred to as approaches to learning, typically include assessments of attentiveness, persistence, frustration tolerance, and learning independence, but may also include curiosity as well as the ability to self-organize (Domínguez et al., 2010). Students or students who show positive learning behavior will have better academic achievements. Student learning behavior, such as the habit of attending lectures, reading books, readiness to take exams, and searching for subject matter on the
internet can affect the level of student understanding. Habits such as listening to explanations seriously, asking questions when they don't understand, reading material, making summaries, and discussing with friends can improve accounting comprehension. Childrens with low academic skills can get benefit the most from enhanced learning behaviors in their later achievement (Razza et al., 2015). So by improving their learning behavior, a student will be able to get benefits, one of which is an understanding of the lessons learned.

Learning behaviors represent the behavioral consequences of self regulatory and skills which are directly relevant to children's engagement in academic routines and classroom adaptation (McClelland & Cameron, 2012). The learning behaviors suggest that children's ability to persist in learning activities may provide an underlying mechanism by which quality relates to later academic achievement (Schmerse, 2020). This study shows that learning behavior affects the level of accounting understanding, because positive learning behaviors lead to higher activity intensity than negative ones, and students with positive learning attitudes learn more actively and achieve better results.

The Effect of Intellectual Intelligence on Accounting Understanding

Intellectual intelligence has a significant effect on accounting understanding, so this shows that these indicators are important indicators that support the student's accounting understanding process. This effect can be seen from the t value of 6.321 which is greater than the table value of 1.983 and the significance value of 0.000 which is smaller than the value of the significant level of significance (0.05). So that it shows where students think that the problem-solving ability, verbal ability, figure ability and numerical ability are enough to be a supporting factor in understanding accounting because students may not need high intellectual abilities to be able to solve the cognitive problem items.

Intellectual intelligence has a positive effect on accounting understanding with a significance level of 0.001 (Wardani & Ratnadi, 2017). Then the research of Widhianningrum (2017) shows that there is a relationship between intellectual intelligence and the level of accounting understanding with a significance value of 0.000. The intellectual intelligence variable has a positive and significant influence on accounting understanding with a significance level of 0.000 (Gede & Ketut, 2018). Intellectual intelligence has an impact on accounting understanding with a significance level of 0.000 (Pasek, 2016).

In addition, the results of this study are also supported by the theory which states that Intellectual abilities are those needed to perform mental activities thinking, reasoning, and problem solving (Robbins & Judge, 2009). Intellectual intelligence is a strong predictor of achievement, with fluid intelligence being especially associated with academic achievement measures (Duckworth et al., 2012; Gagné & St Père, 2001; Tucker-Drob et al., 2016). Greater IQ performance was positively associated with student coping with school demands and parental desire for more school grading. Likewise, greater IQ seems to result in students having less worry, denying that school testing was frequent (Brown & Eklöf, 2018). The higher a person's intellectual intelligence will affect his ability to deal with the problems he faces and be able to analyze and make decisions and act when carrying out work or studying so that his understanding becomes better (Andreana & Putri, 2020). So that someone who has high intellectual intelligence will make students confident and can overcome the difficulties they experience, which has an impact on the learning process they undergo.

We can conclude that with intellectual intelligence it will be able to support and provide a stimulus in improving one's accounting understanding. Without the intellectual intelligence that a person has, it will be difficult for him to be able to understand the learning he is facing. This is because intellectual intelligence can provide stimulation to mindsets that have an impact on a person's level of understanding.
**The Effect of Learning Behavior and Intellectual Intelligence on Accounting Understanding**

Learning behavior and intellectual intelligence have a simultaneous effect on accounting understanding by 45.8%, this shows that learning behavior and intellectual intelligence are sufficient to contribute positively to accounting understanding. In addition, it can also be seen from the results of the F test which provides evidence that learning behavior and intellectual intelligence simultaneously have an effect on the variable level of accounting understanding with a significance value of 0.000 (0.000 < 0.05). Intellectual intelligence, emotional intelligence, self-confidence and learning behavior are important factors in understanding accounting (Suprianto & Harryoga, 2015). This means that this can work well if each student can further develop their intellectual intelligence and learning behavior. Based on the results of data analysis it is known that intellectual intelligence and learning behavior have a significant positive effect on the level of accounting understanding. With the indicator of problem-solving ability, verbal ability that is in line with this research, it means that it can be said that these indicators can be a factor in accounting understanding, so that the better the problem-solving ability and verbal ability this can also help in accounting understanding. And in line with good learning behavior, students will also be more mature in understanding accounting because they already have the provision of good learning behavior.

The general intelligence process, which underlies all forms of intelligent behavior, identifies the existence of a problem, defines the nature of the problem, develops a problem-solving strategy, monitors the effectiveness of the strategy during problem solving, and evaluates the effectiveness of the strategy, strategy after problem solved (Sternberg, 2019). Cognitive which is part of intellectual intelligence is very important because it helps to do work and fluency in learning. Cognitive ability is related to performance because of its influence on understanding capacity to learn the knowledge and skills necessary for the continuity of the learning process (Salthouse, 2012). Cognitive which is part of intellectual intelligence is also important to continue to work and learn longer, so that individuals can continue to learn as long as they wish to do so. So that with learning behavior and intellectual intelligence possessed by a person, it will have an impact on the smoothness of learning, namely in terms of understanding the material being studied.

Someone who has good intellectual intelligence and who has good learning behavior will provide encouragement to be able to increase the ease in the process of understanding the learning being studied, this is because intellectual intelligence itself is an ability that a person has, where with the intellectual intelligence will be able to identify problems faced in learning and also solve these problems and learning behavior is one of the actors behind a person's success in learning. The researcher gives some suggestions, namely for students to be able to improve indicators of speaking skills in foreign languages and material skills using foreign languages because these indicators are indicators that are not good enough to support students' understanding of accounting.

4. **CONCLUSION**

This study discusses the relevance of learning behavior and intellectual intelligence to accounting understanding. The results show that learning behavior has a positive and significant effect on accounting understanding, intellectual intelligence has a positive and significant effect on accounting understanding, and simultaneously intellectual intelligence and learning behavior have a positive and significant effect on accounting understanding levels. The results of this study provide new findings where intellectual intelligence and learning behavior have an impact on a person's level of understanding. This study has several limitations, namely the number of respondents who are only 105 people, of course this is still not enough to describe the actual conditions. Then the variables studied focused on learning.
behavior and intellectual intelligence which of course there are still other factors that affect a person's understanding in learning. Furthermore, in the data collection process, the information provided by respondents through questionnaires sometimes does not reflect the actual views of respondents, because each respondent has different thoughts, assumptions and understandings, as well as other factors such as honesty in giving opinions by respondents on the questionnaire.

5. REFERENCES


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