



The Effect of Digital Literation, Internationalization, and Learning Orientation on The Quality of Learning Through Self Direct Learning as Variables Moderating

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DOI: 10.15294/eeaj.v10i1.44696

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History of Articles

Received: January 20, 2021
Approved: January 30, 2021
Published:
February 28, 2021

Keywords

Internationalization; Quality of Learning; Digital Literacy; Learning Orientation; Self Direct-Learning

Abstract

This study aims to determine the effect of digital literacy, internationalization, learning orientation on the quality of learning, and the role of the self-direct learning variable as a moderating variable. The population in this study were students of accounting education class 2016-2019. Samples were taken by purposive sampling as many as 75 students. The data collection technique used a questionnaire. Data analysis was performed using the classical assumption test with the IBM SPSS Statistic 26 application program. The results showed that digital literacy, internationalization, learning orientation did not affect the quality of learning. However, the existence of the self-direct learning variable as a moderating variable can strengthen the positive and significant influence on the quality of learning. Students must improve their learning orientation and digital literacy associated with improving the quality of learning.

How to Cite

Astuti, DP, Kardiyem, Rachmadani, WS & Widya, S. (2021). The Effect of Digital Literation, Internationalization, and Learning Orientation on The Quality of Learning Through Self Direct Learning as Variables Moderatings. *Economic Education Analysis Journal*, 10 (1) 2021, 41-53.

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p-ISSN 1907-3720
e-ISSN 2502-5074

INTRODUCTION

A learning process is often faced with problems related to the quality of learning. The quality of learning depends on the ability of educators to develop an effective and efficient learning process. To achieve learning objectives, there are two important aspects, namely the learning process and learning outcomes. The main objective of learning is operationally forming students able to process and acquire knowledge, skills, and attitudes for themselves.

The quality of learning is closely related to the use of optimal teaching methods to achieve learning objectives. This means that to achieve a good quality of learning, lecture materials must be formulated with the right strategy and the right delivery strategy. The quality of learning is also influenced by factors of learning orientation, internationalization, and also learning independence of students. According to (Suleman, 2012) quality education includes freedom, numeracy, and life skills imparted through teachers, content, methodology, curriculum, examination systems, policy, management, and administration. The quality of learning is defined as the intensity of systemic and synergistic relationships between teachers, students, learning climate, and learning media in producing optimal learning processes and outcomes by curricular demands (Haryati & Rochman, 2012).

The central role that can improve the quality of education and learning is the role of a teacher or lecturer. The role of teachers and lecturers as facilitators and someone who leads the direction of learning to be fun or vice versa. A teacher will directly affect the quality of education in two ways, namely students and education systems that create and support student learning experiences (Modi, 2013). Indicators that contribute to the quality of learning include the characteristics of students, the learning environment, learning facilities and infrastructure, approaches to learning, and learning outcomes (Suleman, 2012). Besides, the use of technology in learning is an

indicator of success and efforts to improve the quality of learning at this time (Andri, 2017).

Mastery of information and communication technology by educators and students is important and needs to be applied in the educational process. The academic demands at each level of education in Indonesia are different (Akbar & Anggraeni, 2017), so it is necessary to make efforts to adapt to the needs of students. 21st-century education requires educational institutions to be responsive to the developments and changes of the times by mastering information technology or what is called digital literacy. The importance of digital understanding is a form of skill that must be possessed by teachers and students today (Chan et al., 2017; List, 2019). Not in the field of digital competency education and digital literacy are concepts that are increasingly being used in public discourse (Spante et al., 2018).

Digital literacy in education, especially in higher education, has consequences in the form of learning designs by utilizing media as a means of student learning. The use of media can present learning materials in a contextual, audio, and visual way interestingly and interactively (Umam, 2013). Digital literacy is the interest, attitude, and ability of individuals in using digital technology and communication tools to access, manage, integrate, analyze and evaluate information, build new knowledge, create and communicate with others to participate effectively in society (Setyaningsih & Prihantoro, 2012). Many skill models are useful for improving one's abilities and are sometimes referred to as multi-literacy (Mardina, 2011). Literacy skills are skills that emphasize literacy skills that are connected in the digital era, not only limited to reading, listening, writing and speaking skills (Candrawati, 2010).

Regarding the importance of having skills in digital technology, Meyers et al., (2013) said skills in digital literacy as an indicator of work. This means that a teacher and students must also have the ability to use technology to adapt to current needs. The statement explains that digital literacy is important to be mastered by a learner, teacher,

lecturer, and student in improving the quality of learning. Universities as part of higher education institutions should adjust themselves to carry out a digital-based learning process. Digital literacy in higher education can be done using communication and collaboration in the form of active participation in digital networks for learning and research. This is because digital literacy has become a necessity in various fields (Pangrazio & Sefton-Green, 2021). The advancement of information technology and the internet has resulted in very large digital information resources (Kurnianingsih et al., 2017). This situation will support the internationalization program of higher education, especially in improving the quality of education.

The internationalization of higher education is a process that involves the internationalization of the curriculum, administration and management, collaborative academic research, and student and lecturer exchanges (Liu & Dai, 2012). In facing the context of education in Indonesia, the impact of internationalization can be seen from several things. First, the Ministry of Education and Culture has strongly encouraged all schools to use digital devices such as computer use, internet access, e-learning, video conferencing, teleconferences and so on to support the teaching process and to improve the quality of learning outcomes in schools. Second, several years ago the Indonesian government has issued a language policy that applies to teaching English.

The curriculum and learning process developed in the context of internationalization at the international level has various variations. This diversity includes the name of the course, the distribution of the subjects, the number of credits, as well as the syllabus and literature books to the learning process and administrative models. (Fuadi, 2016). This complements and expands the theory that in the process of internationalization, one of the aspects that need to be developed is curriculum changes, in this case, the internationalization of the curriculum, but curriculum changes (curriculum internationalization) depend

on how the study program determines policy. The quality of higher education outcomes is expressed as competitiveness in gaining recognition from the world of science at the international level. This quality is characterized, among others, by the ability to penetrate international publications, the ability of graduates to compete in the global arena, and the ability to win academic awards at the international level. Relevant and quality university programs are characterized by the ability of graduates to be able to meet the needs of the job market, create new jobs, (Fuadi, 2016).

The learning orientation aspect also plays an important role in the success of the quality of learning. Learning orientation is one of the reasons that encourage someone to learn. Also, learning orientation is an affective dimension of the learning process that determines the quality of student learning outcomes. Learning orientation has a strong influence on the quality of learning outcomes. Several surveys (in the context of secondary and tertiary education) confirm that general learning orientation is related to academic achievement. According to (Vermunt & Vermetten, 2004), the results of his research indicate that learning orientation has a positive correlation with academic achievement. The deep learning approach was consistently positively correlated with academic achievement (Lonka et al., 2004).

Learning orientation is a force that moves students to study within a certain period (Djamarah, 2011). Orientation is closely related to learning motivation. Motivation is divided into two types in the learning process, namely intrinsic motivation and extrinsic motivation. Intrinsic motivation is a drive from within the individual himself called pure motivation and produces behavior that appears without the need for punishment for not doing it. Extrinsic motivation is encouragement from outside the individual who has the goal of fulfilling obligations, avoiding punishment, obtaining rewards, increasing prestige, and getting praise (Sardiman, 2007). In line with research Fasce H. et al., (2016) in medical

students, it shows that motivation affects the ability to study independently in developing independence, the desire to seek information, and develop skills. The same results were also found in the third-semester student research at the Faculty of Medicine, Ukrida, that there was a relationship between learning motivation and self-directed learning in solving college assignment problems. (Hartono, 2012). Furthermore, Aditomo, (2008) stated that learning orientation is consistently negatively correlated with learning outcomes. These findings indicate that lecturers or teachers need to try to identify students whose learning orientation tends to be less stable and make efforts to develop a more focused or productive learning orientation. This statement shows that the affective dimension, in this case, the learning orientation, needs to be taken into account in the learning process.

Accounting education students as prospective accounting educators have the responsibility to practice the knowledge gained in the world of education. The dynamic world of education requires students as educational candidates to always be updated on developments in accounting science and technology. Based on the researcher's observations of the phenomenon in the Department of Economic Education, the concentration of Accounting Education, Faculty of Economics, UNNES, students who succeed in the process of doing assignments are students who do not depend entirely on others. They have their initiative in managing the time to continuously seek, find and choose what their real needs are. All of these are descriptions of self-directed learning skills.

The term Self Directed Learning (SDL) is found in the psychology literature of adult education (Jossberger et al., 2010). The results of the research conducted (Hyland & Kranzow, 2011) revealed that SDL has a positive effect on academic performance at undergraduate and postgraduate level students. Self Direct Learning (SDL) is students' readiness for their learning environment and independence that requires students to learn. SDL applies

adult learning and considers itself to be able to determine its own learning needs as a whole. Problems are addressed by using knowledge, learning proactively, responsibly and being able to take the initiative to learn on their own.

Independent learners are directed to diagnose their own learning needs, formulate learning goals, find suitable resources for learning and monitor their learning activities. In the self-learning process, the different phases generally include needs assessment, planning, learning engagement, and evaluation. Learning needs can be explained as a mismatch or gap between the desired competencies and the current level of ability of students (Louws et al., 2017). In an independent learning environment, students have more freedom to generate and pursue their own goals, and to evaluate the material they choose (Robertson, 2011).

Many higher education institutions apply specific learning and have designed mechanisms and instruments to improve the quality of education. Through the use of technology and digital devices, individuals are given space to develop SDL skills through various activities and resources, such as participation in online study groups, reflective writing activities, and online dialogue (Saks & Leijen, 2014). Research result Grant, (2010) on the application of digital in several schools in the UK emphasize several important points, such as providing space for students to be involved in choosing subject matter, triggering the independence of students in learning, and improving communication skills between students through the use of digital technology. This shows that in a digital era like this, SDL cannot be separated from digital literacy. This means that SDL skills in the learning process can be improved through good digital literacy skills. This is in line with the research conducted (Radovan, 2014) also shows the results that digital literacy has a positive effect on the quality of learning.

Based on the description above, the purpose of this study is to determine and analyze the effects of digital literacy, internationalization, learning orientation on learning quality.

And the presence of the self-direct learning variable as a moderating variable can strengthen the influence of digital literacy, internationalization, learning orientation variables on the quality of learning.

METHOD

This type of research is quantitative research. The population studied was undergraduate students of the Faculty of Economics, State University of Semarang, Department of Economic Education, 2016-2019, totaling 437 students. The number of samples calculated based on the Slovin formula is 75 students. The sampling technique used was purposive sampling. The data collection technique used a questionnaire. The data analysis technique used is the classical assumption test model and the coefficient of determination (R^2) test. Data analysis was performed using statistical procedures with the help of the IBM SPSS Statistic 26 application program.

The dependent variable measured in this study is the quality of learning (Y). The independent variables measured in this study were digital literacy (X1), internationalization (X2), and learning orientation (X3). Meanwhile, the moderating variable in this study is Self Direct Learning (SDL) (Z). The learning quality variable (Y) is measured based on indicators, namely: (1) student characteristics, (2) learning environment, (3) learning facilities and infrastructure, (4) approaches to learning, and (5) learning outcomes.

The digital literacy variable (X1) is measured based on the following indicators: (1) information literacy, (2) digital scholarship, (3) learning skills, (4) Information and Communication Technology (ICT) literacy, (5) career and identity management, (6) communication and collaboration, and (7) media literacy. The internationalization variable (X2) is measured based on the following indicators: (1) the proportion of students and foreign lecturers, (2) the number of student exchanges (coming and going), and (3) the number of international partners. Learning orientation

variables (X3) are measured based on indicators: (1) willingness to learn, (2) pride in the organization, (3) common goals, (4) shared assumptions, (4) acceptance of new ideas, and (5) views/knowledge. Self-direct learning variables are measured based on indicators: (1) controlling the amount of learning experience that occurs.

The hypothesis proposed in this study are: (1) there is an effect of digital literacy on the learning quality of accounting education students; (2) there is the effect of internationalization on the quality of learning accounting education students; (3) there is an effect of learning orientation on the learning quality of accounting education students; (4) there is the influence of self-direct learning in strengthening the influence of digital literacy on the quality of learning for accounting education students; (5) there is the influence of self-direct learning in strengthening the effect of internationalization on the quality of learning in accounting education students; (6) there is an effect of self-direct learning in strengthening the effect of learning orientation on the learning quality of accounting education students.

RESULTS AND DISCUSSION

Descriptive statistical analysis in this study was obtained from the calculation of the interval scale so that the predicate of the learning quality variable was obtained. digital literacy, self-directed learning (SDL). Below are the descriptive results of variable statistics.

Table 1. Descriptive Results of Variable Statistics

	Descriptive Statistics				
	N	Min	Max	Mean	Std. Deviation
KP	75	28	59	45.75	5,643
LD	75	47	59	54.87	2,195
IN	75	36	45	40.32	1,637
OB	75	40	50	45.16	2,054
SDL	75	40	45	41.73	1,473
Valid N	75				

Source: Results of research data processing, 2020.

Based on the results of descriptive statistical analysis it can be concluded the overall average quality of learning, internationalization, is in the high category. Besides, the results of descriptive statistics show that the average value of digital literacy, learning orientation, self-direct learning is in the very high category. So it can be concluded that the 2016-2019 UNNES Accounting Education students as respondents in this study have quality learning, internationalization, including in the high category and digital literacy, learning orientation, self-direct learning in the very high category.

Based on the normality test, it shows that the Kolmogorov-Smirnov value is 0.065 with a significance value of 0.05 which means normal. Furthermore, it is found that the Durbin-Watson value is greater than the DL value. The DL value is 1.5151 and the Durbin-Watson value is 1.931. This analysis prerequisite test fulfills the requirements because it has a normal distribution and has a linear relationship between each of the independent variables, the dependent variable, and the moderating variable. Based on the multicollinearity test results, it can be seen that the VIF value < 10 and the tolerance value > 0.1 for the four independent variables and the moderating variable. These results indicate that there is no multicollinearity between the independent and moderating variables in this study. The moderation regression model analysis in this study used the MRA technique. This test was chosen to examine the effect of the variables of digital literacy, internationalization, learning orientation on the quality of learning, and the effect of self-direct learning as a moderating variable. The absolute difference test in this study used the IBM SPSS statistic 26.0 software application. The level of significance used is 0.05.

Table 2. Hypothesis Summary Results

Hypothesis	Coefficient	Sign	Decision
H1	0.273	0.364	Rejected
H2	0.066	0.871	Rejected
H3	0.711	0.335	Rejected
H4	0.600	0.004	Received
H5	0.794	0.003	Received
H6	0.397	0.029	Received

Source: Results of research data processing, 2020

Based on these results, the results of the moderation regression model analysis can be presented in the following figure:

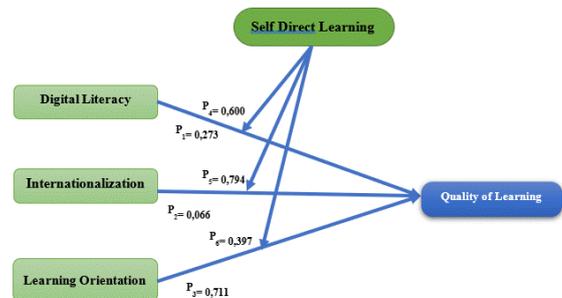


Image 1. Results of the Regression Model Analysis

The Effect of Digital Literacy on the Quality of Learning in Accounting Education Students

Based on the results of this study it can be seen that the partial significance test (t-test) of the digital literacy variable on the learning quality of the 2016-2019 batch of 2016-2019 UNNES Accounting Education students has a significance value of 0.364, which means the significance value is $> \alpha = 0.05$ and the coefficient value is 0.273. The conclusion is that H1 which states that digital literacy has a positive effect on the quality of learning in Accounting Education students of 2016-2019, is rejected.

The results of this study are inconsistent with the theory of involvement proposed by Astin (1999), namely that involvement refers to the investment of physical and psychological energy in terms of various objects. This theory explains that at the same time, the input factors have a relationship that will affect the environment and affect the outcome. Astin also explained that the relationship between environment and outcome cannot be separated (Yanto et al., 2010). The fact is that input from students does not affect the environment and outcomes, in this case, digital literacy.

Based on the results of the analysis of the frequency distribution of the digital literacy variable, it has an average value of 54.87 and is in the very high category. The learning quality variable has an average value of 45.75. This means that active students of the 2016-2019 batch of UNNES Accounting Education perceive that they have very high digital literacy. The very high quality of learning is not influenced by very high digital literacy. Educators and students have not read the existing phenomena well. Not being able to use it as a learning medium and even a learning resource, especially those related to curriculum implementation and digital literacy culture.

This study proves that the first hypothesis is rejected and shows results following the research (Murray, 2011) that based on the results of digital literacy assessments conducted on final year students at regional universities in the USA, it was stated that although basically, students have often interacted with digital technology, it does not mean they have good skills regarding digital literacy in various environments. The problems that have arisen prompted a movement to reform and transform teaching and learning universities, namely the need for accessibility, flexibility in programs, economic interests, and a movement that supports improving the quality of learning. These four main problems often hinder universities from reaching the maximum potential of new online learning technologies. This proves that high or low digital literacy does not affect the high and low quality of learning.

The Effect of Internationalization on the Quality of Learning in Accounting Education Students

Based on the results of this study, it can be seen that the partial significance test (t-test) of the internationalization variable on the learning quality of the 2016-2019 Accounting Education students has a significance value of 0.871, which means the significance value is $> \alpha = 0.05$ and the coefficient value is 0.066. Based on the results of this study, it can be explained that internationalization is not significant to the quality of learning of 2016-2019 Accounting Education students. This indicates that H2 is rejected.

The results of this study are not relevant to the Astin IEO theory. *Outcome* students are determined by input and environment. This theory explains that at the same time, the input factors have a relationship that will affect the environment and influence *outcomes*. Astin also explained that the relationship between *environment* and *outcome* inseparable influence (Yanto et al., 2010). In this study, the internationalization variable is related to the environment. In this study, the existence of a good internationalization environment does not always affect the outcome or quality of learning well either.

Based on the results of the internationalization descriptive analysis, it was obtained an average value of 40.32 in the high category and the quality of learning has an average value of 45.75. This means that active students of the 2016-2019 batch of UNNES Accounting Education perceive that they have good internationalization and quality of learning. The fact is that the existence of a good environment does not affect the outcome in this study, namely the quality of learning. This is evident in the data of research respondents that there are still 9.33% who do not master digital applications. This can also hinder learning because almost all lessons use digital applications. The educational curriculum in some countries has often failed in its application to keep up with the changes brought about by globalization. These failures are because cur-

riculum bearers have difficulty adapting. Such as limited resources, low number of teachers,

The results of this study state that the second hypothesis that internationalization has a positive effect on the quality of learning is rejected. High and low internationalization does not affect the quality of learning. (Altbach & Knight, 2007) stated that policymakers also need to pay attention to four key contextual factors that can determine the level of success of the internationalization policy for higher education, namely opportunities, imperatives, barriers, and resources. These four factors are very important to receive serious attention, to be monitored and evaluated continuously. This view is a natural thing, considering that internationalization does not only provide hope and opportunity for a country but also destroys the foundations of the State. This is why internationalization does not affect the quality of learning.

The Effect of Learning Orientation on Learning Quality of Accounting Education Students

Based on the results of this study, it can be seen that the partial significance test (t-test) of the learning orientation variable on the learning quality of the 2016-2019 Accounting Education students has a significance value of 0.335 which means the significance value is $> \alpha = 0.05$ and the coefficient value is 0.711. Based on the results of this study, it was explained that the learning orientation was not significant. The conclusion is that H3 is rejected.

The results of this study are not supported by the Astin IEO theory. Student outcomes are determined by input and environment. This theory explains that at the same time, the input factors have a relationship that will affect the environment and affect the outcome. Astin also explained that the relationship between environment and outcome cannot be separated from the input Kelly (1996) in (Yanto et al., 2010). However, in this study learning orientation as an input cannot affect the quality of learning. High or low learning

orientation of Accounting Education UNNES students classes 2016-2019 does not affect the quality of learning.

Based on the results of descriptive analysis, the learning orientation variable was 45.16 in the very high category, and the quality of learning has an average value of 45.75. This proves that Accounting Education students class 2016-2019 have a good learning orientation and quality of learning. However, a very high learning orientation does not affect the quality of learning. This happens because of many factors that influence. Learning orientation is closely related to learning motivation. Motivation is divided into two types in the learning process, namely intrinsic motivation and extrinsic motivation (Sardiman, 2007). The learning orientation that is carried out is only limited to fulfilling obligations, avoiding punishment, getting prizes, increasing prestige, and getting praise. This is what causes a very high learning orientation that does not affect the quality of learning. It is proven from the data of research respondents that there is 38.66%, almost half of the respondents stated that they did not read literacy before class. This can hinder learning and it is evident that their learning orientation is not from intrinsic motivation, but the extrinsic motivation that they will read literacy if forced by the lecturer or will learn at the time of presentation, pre-test only.

This proves that the third hypothesis of this study which states that learning orientation affects the quality of learning of UNNES students of Economics Education Department concentration in Accounting Education Class of 2016-2019 is rejected. High or low learning orientation of students does not affect the quality of learning. According to (Vermunt et al., 2019) The way a person learns and the approach taken to learning can be influenced by several things, one of which is motivation. Learning orientation relates to several things including goals, determination, motivation, expectations, concerns, and individual doubts about the learning that is being carried out. Therefore, learning orientation can influence

students in learning and achieving personal goals. Each person's personal goals are different, this is why everyone's learning orientation does not affect the quality of learning.

The Effect of Self Direct Learning in Strengthening the Effect of Digital Literacy on the Quality of Learning in Accounting Education Students

Based on the results of this study, it can be seen that the partial significance test (t-test) of the interaction variable between digital literacy and self-direct learning and digital literacy has a significance value of 0.004. This shows that with a confidence level of 5%, the self-direct learning variable as a moderating variable successfully moderates the relationship between digital literacy and the learning quality of 2016-2019 accounting education students. Based on these results, H4 is declared accepted.

The results of this study are following the theory of involvement proposed by Astin (1999), namely that involvement refers to the investment of physical and psychological energy in terms of various objects. This shows the relationship between the components in the Astin IEO theory. Student outcomes are determined by input and environment. Astin also explained that the relationship between environment and outcome cannot be separated from Kelly (1996) in (Yanto et al., 2010). This proves that the existence of self-direct learning can strengthen the positive relationship between digital literacy and the quality of learning. The digital literacy possessed by each student is very high but not completely understood. The existence of self-direct learning to control the number of learning experiences that occur, changing oneself to better performance, developing skills, self-management, motivation, and self-assessment can strengthen the influence of digital literacy on the quality of learning.

Based on the results of the frequency distribution analysis, the variable self-directed learning (SDL) has an average value of 41.73 and is in the very high category. The digital

literacy variable has an average value of 54.87 and is in the very high category. The learning quality variable has an average value of 45.75 and is in the high category. This means that active students majoring in the Department of Economic Education, UNNES, class 2016-2019 perceive that they have high self-directed learning (SDL). Student awareness and independence in improving skills to improve digital literacy can improve the quality of learning.

This study proves that this hypothesis is accepted and shows the results following the research (Grant, 2010) explained the results of research on the application of digital literacy in several schools to be involved in choosing subject matter, triggering the independence of students in learning and improving communication skills between students through the use of digital technology. This shows that in this digital era, self-directed learning (SDL) cannot be separated from digital literacy. Through the use of technology and digital devices, individuals are given space to develop self-directed learning (SDL) skills through various activities and resources, such as participation in online study groups, reflective writing activities, and online dialogue (Saks & Leijen, 2014). The results also show that there is a positive correlation between digital literacy and learning quality in students learning in an online-based environment (Hyland, N & Kranzow, 2011). In line with this, (Radovan, 2014) also showed the same result that digital literacy can contribute to more efficient task completion through the help of software and computer programs. It can be concluded that the existence of very high digital literacy, supported by very high self-direct learning can increase the positive influence on the quality of learning.

The Influence of Self Direct Learning in Strengthening the Influence of Internationalization on the Learning Quality of Accounting Education Students

Based on this research, it can be seen that the partial significance test (t-test) of the interaction variable between internationalization and self-direct learning and internationa-

lization has a significance value of 0.003. This shows that with a confidence level of 5% the self-direct learning variable as a moderating variable has successfully moderated the internationalization relationship with the learning quality of students of the 2016-2019 Accounting Education Department. Based on these results, it is stated that H5 is accepted.

The results of this study are supported by the Astin IEO theory. *Outcome* students are determined by input and environment. This theory explains that at the same time, the input factors have a relationship that will affect the environment and influence *outcomes*. Astin also explained that the relationship between *environment* and *outcome* inseparable from the input Kelly (1996) in (Yanto et al., 2010). In this study, the internationalization variable is related to the environment (environment) and *self-direct learning* as input. Environment (environment) is defined as the real experience of students during educational programs at the university. The existence of an environment that supports internationalization will affect the outcome, namely in this study the quality of learning. Good experiences are supported by good self-direct learning as input, which will increasingly affect the quality of learning.

The fact shows that based on the results of the internationalization descriptive analysis, the average value is 40.32 in the high and category The self-directed learning (SDL) variable has an average value of 41.73 and is in the very high category. This happens because in facing the context of education in Indonesia, the impact of internationalization can be seen from many things. The data of research respondents stated that there were 68 people or 90.66% of them stated that they mastered digital applications. However, mastery of their application is not necessarily used to improve the quality of learning. Internationalization that students have as input does not affect the quality of learning as an outcome. When this happens and self-direct learning is present as a moderating variable, it will cause the quality of learning to increase.

The Influence of Self Direct Learning in Strengthening the Influence of Learning Orientation on the Learning Quality of Accounting Education Students

Based on this research, it can be seen that the partial significance test (t-test) of the interaction variable between learning orientation and self-direct learning and digital literacy has a significance value of 0.029. This shows that with a confidence level of 5%, the self-direct learning variable as a moderating variable successfully moderates the relationship between learning orientation and the learning quality of students of the 2016-2019 Department of Economic Education. Based on these results, H6 is declared accepted.

The results of this study are relevant to the Astin IEO theory. This theory states that *outcome* students are determined by input and environment. Astin also explained that the relationship between *environment* and *outcome* inseparable from the input Kelly (1996) in (Yanto et al., 2010). The learning orientation variable (input) in this study does not affect the quality of learning, but when it happens and is supported by self-direct learning as a good input it will strengthen the effect of learning orientation on the quality of learning.

Based on the results of descriptive analysis, the variables of learning orientation and self-directed learning (SDL) respectively 45.16 and 41.73 in the very high category. The quality of learning has an average value of 45.75. This shows that the existence of a very high learning orientation supported by self-directed learning will also affect the high quality of learning. This happens because learning orientation is related to learning motivation. There are two kinds of motivation to learn, namely motivation from within the person himself and motivation from outside the person (Sardiman, 2007). When someone has a high learning orientation due to external encouragement it does not affect the quality of learning, but when it happens and is supported by self-directed learning as students' readiness to their learning environment and independence that requires students to learn, the quality of

learning will increase. Educators provide the opportunity to practice assignments independently, this can help students improve their abilities in self-regulation (Jossberger et al., 2010).

Determinant Coefficient (R²)

The coefficient of determination is used to measure the ability of the model to explain the dependent variable. The value of the determinant coefficient is between zero and one. The ability of the independent variable to explain the dependent variable is limited if the value of R² is smaller. A value that is almost close to one means that the independent variables provide almost all information about the variation of the research variables. The results of the simultaneous determination test in this study are as follows:

Table 3. Result of the coefficient of determination

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,289a	,083	,045	5,515

a. Predictors: (Constant), X3, X1, X2

Source: Results of research data processing, 2020

Based on the output of the IBM SPSS statistical 26.0 software, it can be seen that the value of Adjusted R square is 0.045 or 4.5%. These results indicate that 4.5% of the learning quality variable can be explained by the variation of the independent variables in this study, namely digital literacy, internationalization, learning orientation, and self-directed learning as well as the interaction of the digital literacy variable with the moderating variable of self-directed learning, the absolute difference between the internationalization variable and The moderating variable of self-directed learning, the absolute difference between the learning orientation variable and the moderating variable, self-directed learning. Based on Table 4:26 it can be concluded that as much as 4.6% (100% -4.6%) of the learning quality

variable is explained by other factors outside of this research model.

CONCLUSION

Based on the results of the analysis and discussion presented in this study, it can be concluded that the quality of learning is not influenced by the variables of digital literacy, internationalization, and learning orientation of 2016-2019 accounting education students. Furthermore, the presence of the self-direct learning variable as a moderating variable can strengthen the influence of the digital literacy, internationalization, and learning orientation variables on the learning quality of Accounting Education students class 2016-2019.

The result from This research can provide suggestions for further research to be able to develop other independent variables that may affect the quality of learning such as teacher competence, class characteristics, university characteristics, facilities and infrastructure, evaluation atmosphere, and others. Besides, further research can increase the number of research respondents so that it is hoped that the results obtained can be more accurate and describe the real situation. Based on respondents' data, student learning orientation, especially internal motivation, needs to be improved. Digital literacy related to improving the quality of learning for Accounting Education students class 2016-2019 UNNES needs to be improved, this happens because digital literacy owned by students is usually used for non-education.

REFERENCES

- Aditomo, A. (2008). *Apakah Hubungan antara Orientasi Belajar dan Prestasi Akademik Tergantung pada Konteks ?* 24(1), 56–68.
- Akbar, M. F., & Anggraeni, F. D. (2017). *Teknologi Dalam Pendidikan: Literasi Digital dan Self-Directed Learning pada Mahasiswa Skripsi. Indigenous: Jurnal Ilmiah Psikologi*, 2(1), 28–38.
<https://doi.org/10.23917/indigenous>.

v1i1.4458

- Altbach, P. G., & Knight, J. (2007). The Internationalization of Higher Education: Motivations and realities. *Journal of Studies in International Education*, 11(3–4), 290–305.
<https://doi.org/10.1177/1028315307303542>
- Andri, R. M. (2017). Peran dan Fungsi Teknologi Dalam Peningkatan Kualitas Pembelajaran. *Jurnal Ilmiah Research Sains*, 3(1), 122–129.
<http://www.jurnalmodiraindure.com/wp-content/uploads/2017/04/peran-dan-fungsi-teknologi-dalam-peningkatan-kualitas-pembelajaran.pdf>
- Candrawati, S. R. (2010). Pemanfaatan E-Learning dalam pembelajaran. *Jurnal Cakrawala Kependidikan*, 8(2), 172–181.
- Chan, B. S. K., Churchill, D., & Chiu, T. K. F. (2017). Digital Literacy Learning In Higher Education Through Digital Storytelling Approach. *Journal of International Education Research (JIER)*, 13(1), 1–16.
<https://doi.org/10.19030/jier.v13i1.9907>
- Djamarah. (2011). *Psikologi Belajar*. Rineka Cipta.
- Fasce H., E., Ortega B., J., Ibáñez G., P., Márquez U., C., Pérez V., C., Bustamante D., C., Ortiz M., L., Matus B., O., Bastías V., N., & Espinoza P., C. (2016). Motivation and self-directed learning among medical students. *Revista Médica de Chile*, 144(5), 664–670. <https://doi.org/10.4067/S0034-98872016000500016>
- Fuadi, D. (2016). Internasionalisasi Perguruan Tinggi: Studi Multisitus Pada Perguruan Tinggi Islam di Yogyakarta. *The Progressive and Fun Education Seminar*, 1, 594–607.
<https://publikasiilmiah.ums.ac.id/handle/11617/7870>
- Grant, L. (2010). *Connecting digital literacy between home and school*. FutureLab.
- Hartono, B. (2012). Self Directed Learning dalam Problem Based Learning di FK UKRIDA. *Jurnal Kedokteran Meditek*, 18(48), 35–39.
- Haryati, T., & Rochman, N. (2012). Peningkatan Kualitas Pembelajaran Pendidikan Kewarganegaraan Melalui Praktik Belajar Kewarganegaraan (Project Citizen). *Jurnal Ilmiah Civis*.
- Hyland, N & Kranzow, J. (2011). Faculty And Student Views of Using Digital Tools To Enhance Self-Directed Learning And Critical Thinking. *International Journal of Self-Directed Learning*, 8(2), 11–27.
- Jossberger, H., Brand-Gruwel, S., Boshuizen, H., & van de Wiel, M. (2010). The challenge of self-directed and self-regulated learning in vocational education: A theoretical analysis and synthesis of requirements. *Journal of Vocational Education and Training*, 62(4), 415–440.
<https://doi.org/10.1080/13636820.2010.523479>
- Kurnianingsih, I., Rosini, R., & Ismayati, N. (2017). Upaya Peningkatan Kemampuan Literasi Digital Bagi Tenaga Perpustakaan Sekolah dan Guru di Wilayah Jakarta Pusat Melalui Pelatihan Literasi Informasi. *Jurnal Pengabdian Kepada Masyarakat (Indonesian Journal of Community Engagement)*, 3(1), 61–76.
<https://doi.org/10.22146/jpkm.25370>
- List, A. (2019). Defining digital literacy development: An examination of pre-service teachers' beliefs. *Computers and Education*, 138(May 2018), 146–158.
<https://doi.org/10.1016/j.compedu.2019.03.009>
- Liu, J., & Dai, Z. (2012). On the Internationalization of Higher Education Institutions in China. *Higher Education Studies*, 2(1), 60–64.
<https://doi.org/10.5539/hes.v2n1p60>
- Lonka, K., Olkinuora, E., & Mäkinen, J. (2004). Aspects and Prospects of Measuring Studying and Learning in Higher Education. *Educational Psychology Review*, 16(4), 301–323.
<https://doi.org/10.1007/s10648-004-0002-1>
- Louws, M. L., Meirink, J. A., van Veen, K., & van Driel, J. H. (2017). Teachers' Self-directed learning and Teaching Experience: What, how, and why teachers want to learn. *Teaching and Teacher Education*, 66, 171–183.
<https://doi.org/10.1016/j.tate.2017.04.004>
- Mardina, R. (2011). Potensi Digital *Vatives* dalam Representasi Literasi Informasi Multimedia Berbasis Web di Perguruan Tinggi. *Jurnal*

- Pustakawan Indonesia*, 11(1), 2013.
- Meyers, E. M., Erickson, I., & Small, R. V. (2013). Digital Literacy and Informal Learning Environments: An introduction. *Learning, Media and Technology*, 38(4), 355–367. <https://doi.org/10.1080/17439884.2013.783597>
- Modi, M. L. (2013). *Affecting the Provision of Quality Education in Public and Private Secondary Schools in Central Equatoria State, Juba County South Sudan*.
- Murray, J. (2011). The Relevance and Utility of World Class Operations to the University of Guyana. *International Journal of Business and Management*, 6(1), 247–252. <https://doi.org/10.5539/ijbm.v6n1p247>
- Pangrazio, L., & Sefton-Green, J. (2021). Digital Rights, Digital Citizenship and Digital Literacy: What's the Difference? *Journal of New Approaches in Educational Research*, 9(2), 15. <https://doi.org/10.7821/naer.2021.1.616>
- Radovan, V. (2014). *Digital Literacy as a Prerequisite for Achieving Good Academic Performance*. Ecil.
- Robertson, J. (2011). The educational affordances of blogs for self-directed learning. *Computers and Education*, 57(2), 1628–1644. <https://doi.org/10.1016/j.compedu.2011.03.003>
- Saks, K., & Leijen, Ä. (2014). Distinguishing Self-Directed and Self-Regulated Learning and Measuring them in the E-learning Context. *Procedia - Social and Behavioral Sciences*, 112(Icepsy 2013), 190–198. <https://doi.org/10.1016/j.sbspro.2014.01.1155>
- Sardiman. (2007). *Interaksi dan Motivasi Belajar Mengajar*. PT. Raja Grafindo Persada.
- Setyaningsih, R., & Prihantoro, E. (2012). *Model Penguatan Literasi Digital Melalui Pemanfaatan E-learning*.
- Spante, M., Hashemi, S. S., Lundin, M., & Algers, A. (2018). Digital Competence and Digital Literacy in Higher Education Research: Systematic Review of Concept Use. *Cogent Education*, 5(1), 1–21. <https://doi.org/10.1080/2331186X.2018.1519143>
- Suleman, Q. (2012). *Factors Responsible for Unsatisfactory Academic Performance of the Secondary School Students in the Rural Areas of Kohat Division , Khyber Pukhtunkhwa (Pakistan)*. 43(43), 46–57.
- Umam, K. (2013). Penerapan Media Digital Dalam Pembelajaran Apresiasi Batik Kelas X SMA Negeri 1 Blega. *Jurnal Pendidikan Seni Rupa*, 1(1), 100–105.
- Vermunt, J. D., & Vermetten, Y. J. (2004). Patterns in student learning: Relationships between learning strategies, conceptions of learning, and learning orientations. *Educational Psychology Review*, 16(4), 359–384. <https://doi.org/10.1007/s10648-004-0005-y>
- Vermunt, J. D., Vrikki, M., van Halem, N., Warwick, P., & Mercer, N. (2019). The Impact of Lesson Study Professional Development on the Quality of Teacher Learning. *Teaching and Teacher Education*, 81, 61–73. <https://doi.org/10.1016/j.tate.2019.02.009>
- Yanto, H., Mula, J. M., & Kavanagh, M. H. (2010). A Conceptual Model For Building International Competencies Of Accounting Graduates of Indonesian Universities. *School of Accounting, Economics and Finance, University of Southern Queensland Toowoomba, Australia*, 1–27.