Online Learning Evaluation In Malang City and Batu To Improve SMK Students Competency

Ema Sumiarti, Rusijono, Andi Mariono
Educational Technology Study Program, Surabaya State University, Indonesia
Surabaya State University, Indonesia
Surabaya State University, Indonesia
Email: emaandien@yahoo.com, rusijono@unesa.ac.id, andi_mariono@yahoo.co.id

ARTICLE INFO

ABSTRACT

The important role of policy makers is to develop and improve program implementation. The purpose of the study in general is to evaluate the supporting components of the implementation of online learning which include learning facilities at home and parents' attention in learning, the input component of students' initial abilities, and the process components of activeness following online learning in relation to increasing the competence of SMK students in Malang and Batu. The research design uses evaluation research. The research sample involved 240 students of the multimedia expertise program at SMKN 4, 5, 11 Malang City and SMKN 3 Batu. The data analysis technique used in this research was SEM (Structural Equation Modeling) and LISREL. The results of this study are, 1) learning facilities at home have a direct effect on students' initial abilities, student activity. 2) parents' attention in learning has a direct effect on students' initial ability and student competence, and has an indirect effect on student learning activeness and competence.

INTRODUCTION

Education was also affected by the Industrial Revolution 4.0. Especially vocational education. This is because SMK aims to prepare students to become more productive individuals. To produce graduates who are able to work independently, fill job vacancies that are a dream in the business and industrial world, as middle-level workers who have the competencies and skills they choose.

Every institution that provides vocational education must be committed to making its graduates able to work in the field of expertise being studied. The real impact on vocational education is the demand for changes in student competencies and learning strategies adapted to the needs of the 21st century.

Vocational Education Has Several Important Aspects That Are Required, Vocational Education Needs To Contribute To Students In The Aspects Of Social, Cultural And Economic Development Of Society That Are Currently Developing. Leads To An Understanding Of Scientific Aspects And Technology That Is Currently Developing In The Community. Currently There Are Around 13,900 Smks Managed Privately And 3,400 Are Managed By The State. This Shows That Smk Is Currently Experiencing An Explosive Growth In Terms Of Number. However, The Problem Is That The Fulfillment Of Smk Quality Standards Has Not Been Evenly Distributed Because The Concentration Is Only For Building The Physical Sector, Not Accompanied By Good Quality Assurance Efforts. In The Data From The Statistical Calculation Results Of Vocational Schools In...
East Java For The 2017/2018 School Year, The Dropout Rate For State and Private Vocational High Schools reached 73,888 students with a graduation rate of State and Private Vocational High Schools of 13,665 students who had not passed from SMK.

To Improve The Quality Of Education Is One Of The Restoration Efforts In The Education Sector By The Ministry Of Education And Culture. Thus, At This Time Education Must Shift To Improving Quality Based On Online Systems. Almost All Human Life Today Is Very Dependent On The Use Of Online Media, So It Is Inevitable For The World Of Education To Also Take Advantage Of The Online System. The Challenge Is To Create An Online Education System That Can Encourage Quality Improvement Towards Quality Education And Quality Of Vocational High School Graduates.

The Ministry Of Education And Culture, And The East Java Provincial Education Office Are Aggressively Launching Online Learning, One Of Which Is The Online Learning Program Implemented By Seamolec Through Smk To Improve The Competence Of Vocational Students, Learning Using Web Applications Is A Development Of Existing Online Learning Models. In The Implementation Of Online Learning Programs That Have Been Implemented For Several Years Up To The Development Of Various Online Learning Models, It Is Necessary To Evaluate The Implementation Of Online Learning Programs To See The Effectiveness Of Program Implementation In Increasing Student Competence.

A program to achieve the goals, that have been planned from the start. (Arikunto & Jabar, 2004) explains that the program is a system, and the system itself is a single program of various program components that are interconnected and work together with one another to achieve the goals that have been set early on in the system. (Fink, 1995) explains that the program is a systematic effort to achieve a previously planned goal. A similar opinion is also explained by (Leonard, 1984) that a program is a set of activities or facilities designed to achieve a goal. Referring to this opinion, the online learning program is a system that consists of a single program and the supporting components of the program are intertwined with each other to work together between components to achieve program objectives, namely increasing student competence.

In implementing the online learning program at SMK, there are several elements that support each other between learning facilities at home such as study rooms, learning support furniture, learning aids and learning resources, parents' attention in learning (guiding, supervising, motivating and fulfilling children's needs in the process. learning), the initial abilities of students, the activeness of students in participating in online learning, accurate data has not been found. In order to achieve maximum learning outcomes, there are several variables that can support the quality of online learning, including learning facilities at home, and parents’ attention in learning. Learning facilities are all equipment, materials, and furniture that are used directly in learning activities at (Bafadal, 2004). It can be said that learning facilities are tools that more or less influence the learning process which may have an impact on student achievement. Meanwhile, according to (Gie, 2004) “the availability of adequate learning facilities, such as a good study room, appropriate study furniture, efficient learning equipment can support good learning continuity”.

Parents' attention in learning towards students has a very important role in achieving maximum student achievement. So that in the implementation of online learning the role of parents is related to the level of competence of students. (Bimo Walgito, 2004) defines attention, as an activity related to the selection of a stimulus that comes from the environment. According to (Dalyono, 2009) and (Slameto, 2010) the form of parental attention, students get supervision in learning which is very necessary to ensure that what the child does does not deviate from rules or things that are outside the learning objectives. Parental supervision can also be interpreted as the supervision of all activities carried out by children, either directly or indirectly. Parents can be father/mother, guardian of students or people who are responsible for students while participating in learning. The learning process according to (Bandura, 1977) is influenced by three things, namely behavior, cognitive, and environment. So that environmental support factors are very influential on cognitive and vice versa. In its implementation, to identify
the online learning program activities that will be achieved, it is also necessary to observe several indicators of learning facilities at home with sub-indicators (1) space or learning space at home, including space for learning, space size, color, ventilation and lighting, study rooms, (2) learning furniture at home, sub-indicators include places to sit and write, study lamps, conditions for sitting and writing, bookshelves and air conditioners, (3) learning aids include office stationery, wifi/modem, internet quota, stability of electric power and laptops/smartphones, and (4) learning resources including textbooks, social media, printed/electronic media.

In addition, what needs to be observed is the parents' attention in learning, namely the awareness of parents to care for their children, especially in providing and fulfilling their children's needs in learning both in terms of emotion and material. Parents' attention in learning includes children being guided in learning, children are supervised in the learning process, children are motivated in learning and their needs are met in learning.

In order to achieve the goals that were planned from the start, online learning must be evaluated. As above, (Arikunto & Jabar, 2004) explains that the program is a system, and the system itself is a single program of various program components that are interconnected and work together with each other to achieve the goals that have been set from the start in the system. In online learning programs, there is a need for program evaluation that aims to assist administrators or policy makers in making decisions. Program evaluation is used to determine whether the objectives are achieved as expected.

Evaluation has an important role to play in stimulating and planning improvement changes. (Worthen & Sanders, 1973) describe program evaluation as a process of identifying and gathering information to assist decision makers in choosing decisions from a number of available decision alternatives. According to (Stufflebeam & Shinkfield, 2012) states that, the CIPP approach is based on the view that the most important purpose of evaluation is not to prove but improve. The online learning program is a learning system consisting of various components that are interrelated with one another in implementation to achieve predetermined goals from the start. In evaluating this online learning program, it carries out a series of systematic activities to collect data and information related to the program components as input for decision makers on the online learning program.

To evaluate the program of online learning program activities that will help policy makers in developing and improving program implementation. As explained by Stufflebeam, the most important goal in an evaluation is improvement. This learning program is a system that consists of various components in the implementation of the system to achieve goals. Program improvement in its implementation is to improve the components in the program. The program evaluation model used is the CIPP (Context, Input, Process, Product) model because the direction of the evaluation of this model is to improve the online learning system. Guidance for the implementation of individual studies is not a major concern, but is more concentrated on providing continuous evaluation services to decision makers in institutions. So that the emphasis of the CIPP model evaluation is to help maintain and improve the quality of institutional operations. This online learning program evaluation research uses the CIPP Model evaluation because the CIPP model has a comprehensive approach to evaluation, aims to provide a very detailed and broad picture of an activity program, starting from its context to its implementation process. So it is very good at helping make improvements during the program, as well as providing final information.

Based on the background, the formulation of the research problems are: 1) Do learning facilities at home affect student competencies? 2) Does the attention of parents in learning affect student competence? Judging from the problem formulation, the aim of the research in general is to evaluate the components of the implementation of online learning programs in order to improve the quality of the implementation of online learning programs in increasing the competence of vocational students in the Malang and Batu Regional Education Office Branches.

The research objective was to explain the effect of home learning facilities, and the
influence of parental attention. By evaluating the implementation of online learning programs, it is hoped that the components that have a high role in the implementation of online learning can be identified in improving the competence of vocational students.

**METHOD**

The subjects of this study were students at State Vocational High Schools with multimedia expertise programs in the Regional Education Office of Malang and Batu City. For groups or clusters of multimedia expertise programs taken as samples in this study as many as 240 students from SMKN 4, SMKN 5, SMKN 11 Malang City and SMKN 3 Kota Batu.

In this research, the approach taken is to use an evaluation model with the CIPP model. CIPP evaluation dimensions used are context, input, process, and product. The data collection techniques used were, 1) Documentation, 2) Questionnaires, and 3) Test. Meanwhile, the instruments in the study were documentation of a home study facility questionnaire, a questionnaire for parents' attention. The data analysis technique used has the suitability of the online learning program policy evaluation model in improving the competence of vocational school students in the Malang and Batu Regional Education Office Branches with empirical data is a structural equation model using the assistance of Linear Structural Relationship (LISREL) software. The determination of this analysis technique is based on several considerations. First, this technique can be used to test the suitability of the relationship model that has been developed based on theory with empirical data. Second, LISREL is the most precise technique compared to other multivariate analysis techniques. In accordance with the considerations used in determining the analysis technique above, the objectives to be achieved from this analysis are: 1) testing the suitability of the Hypothetical Model with Empirical Data. The criteria used to determine the suitability of a hypothetical model with empirical data are: \( \chi^2 \) (Chi-Square), Goodness of Fit Index (GFI), and Root Mean Square Residual (RMR). The hypothetical model developed in this study is presented covering 2 variables, namely learning facilities at home, and parents' attention in learning in online learning. In addition to describing the structural relationship between variables, it also describes the measurement model for each variable by developing the observed variables or indicators of each variable. There are 3 types of relationships analyzed, namely: direct effect, indirect effect, and total effect. It can be seen from the \( t \) value of each gamma coefficient (\( \gamma \)), in determining the significance of the direct effect of the variable. To determine the significance of the overall effect and the indirect effect of the variable, it is seen from the \( t \) value of each coefficient of the overall effect and indirect effect. The level of significance used in this analysis is 0.05.

**RESULTS AND DISCUSSION**

**A. Result**

In accordance with the research objectives, there are 2 (two) variables in this study, namely Home Study Facilities / FBR, and Parents' Attention in Learning / POR, and variable Y (Student Competence / KOMP). Based on the data obtained, the learning facilities at home include a room or a place to study at home, furniture to support learning at home, learning aids, and learning resources. Research and measurement of the variables in question were carried out using a questionnaire method and an instrument in the form of a questionnaire distributed to respondents consisting of 20 (twenty) closed question items. Each question item provides four alternative answers. The score ranges for each item 1 to 4, with a maximum score of 80 and a minimum score of 20.

From the results of data collection, a frequency distribution table and pie chart can be drawn up as follows:
Table 1
Frequency Distribution of Home Study Facilities

<table>
<thead>
<tr>
<th>Interval</th>
<th>Categories</th>
<th>F</th>
<th>% f</th>
<th>% cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>66 - 80</td>
<td>Very Good</td>
<td>118</td>
<td>49,17</td>
<td>49,17</td>
</tr>
<tr>
<td>51 - 65</td>
<td>Good</td>
<td>77</td>
<td>32,08</td>
<td>81,25</td>
</tr>
<tr>
<td>36 - 50</td>
<td>Enough</td>
<td>28</td>
<td>11,67</td>
<td>92,92</td>
</tr>
<tr>
<td>20 - 35</td>
<td>Less</td>
<td>17</td>
<td>7,08</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>240</strong></td>
<td></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed data

In the variable of parental attention in learning, the indicators measured are children being guided in learning, children are supervised in the learning process, children are motivated in learning, and children have their needs met in learning. Research and measurement of the variables in question were carried out using a questionnaire method and an instrument in the form of a questionnaire distributed to respondents consisting of 31 closed questions. Each question item provides 4 alternative answers. The score range for each item 1 to 4. Based on this, the maximum score for measuring the variable parents' attention in learning is 124 and the minimum score is 31. From the results of data collection, a frequency distribution table and pie chart can be compiled as follows:

Table 2
Frequency Distribution of Parents' Attention in Learning

<table>
<thead>
<tr>
<th>Interval</th>
<th>Categories</th>
<th>F</th>
<th>% f</th>
<th>% cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>102 - 124</td>
<td>Very Good</td>
<td>137</td>
<td>57,08</td>
<td>57,08</td>
</tr>
<tr>
<td>78 - 101</td>
<td>Good</td>
<td>56</td>
<td>23,33</td>
<td>80,42</td>
</tr>
<tr>
<td>54 - 77</td>
<td>Enough</td>
<td>30</td>
<td>12,50</td>
<td>92,92</td>
</tr>
<tr>
<td>31 - 53</td>
<td>Less</td>
<td>17</td>
<td>7,08</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>240</strong></td>
<td></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed data

Most of the students who were the respondents in this study were in the very good category, followed by the good category, only the less category in order.

B. Discussion

1. Home learning facilities affect student competence

The components of learning facilities at home affect the initial ability of vocational students in the field of multimedia expertise in the Regional
Education Office of Malang and Batu City. Students who have high initial abilities or are competent as much as 99.59%. After testing and analysis, it was found that the direct effect of home learning facilities was significant on the initial ability of vocational students in the field of multimedia expertise with a direct effect coefficient of 0.41. So, learning facilities at home have a direct effect on the initial abilities of vocational school students in the Regional Education Office of Malang and Batu. Also obtained data, learning facilities at home have a significant effect of 0.20 on student activeness in online learning. With learning facilities at home learning aids include learning stationery, wifi/modem, internet package quotas, stability of electric power, computers, smartphones and learning resources, students can smoothly and easily follow online learning. As (Asma, 2013) states, there is an influence between the availability of learning facilities and student learning activities.

From the student data as many as 240 respondents after testing and data analysis showed that the results of students who took online learning were presented in Figure 5. To be able to participate in the learning process and master the material of printing graphic design, 2 and 3 dimensional animation as well as creative and entrepreneurial products students must actively participate learning so there is no distribution of student data who are not active in participating in online learning. Based on the results of hypothesis testing and data analysis of this study, it was found that learning facilities at home had a significant effect on student activity in participating in online learning with a value of 0.30. So that the attention of parents in learning does not have a direct effect on student competence. After analyzing the data, it was found that the coefficient of direct influence between the variables of parents' attention in learning to the significant competency variable was 0.43 with a value of γ (gamma) 0.34. The results of hypothesis testing show that parents' attention in learning has a significant effect on student competence.

Parents' attention has no direct effect on student competence with a value of γ (gamma) 0.15. The lower the attention of people, the lower the competence of students. In this study, the indicators are the same as previous studies but the sub-indicators are different according to the respondents of vocational students and online learning models. In previous studies, respondents were not vocational high school students. The conditions in learning are also different in face-to-
face learning and not at the vocational school level, parents can accompany and guide their children in learning. Meanwhile, people in vocational schools sometimes do not understand multimedia subjects and in the online learning model students must actively participate in learning in order to understand and follow the material.

Parents' attention in learning has an indirect effect on student competence with a value of $\gamma$ (gamma) of 0.47 and a coefficient of indirect influence of 0.38. As explained, students do not get parental guidance, supervision and reward, they will still be competent. But parents' attention in learning has an indirect effect on student competence in taking online lessons. (Astuti, 2015) said there was a positive influence between initial ability and interest in learning with learning achievement. Requirements for students to get the title of competent in the field of multimedia expertise, students must pass a competency test. Parents are always concerned about things that have to do with learning outcomes. To achieve good learning outcomes in the field of multimedia expertise through online learning, students must be competent. So that parents will pay attention, supervise and motivate their children to always actively follow the learning. In this study, it is shown by the results of hypothesis testing that parents' attention in learning has an indirect effect on student competence with the indirect effect coefficient of $\gamma$ (gamma) value of 0.22 and the coefficient of indirect influence of 0.35.

2. Online Learning Components Evaluation

In this study, the evaluation was carried out on the components of the online learning program in improving the competence of vocational school students in the Regional Education Office of Malang and Batu. The online learning program in improving the competence of vocational students consists of several components that are evaluated using the CIPP evaluation model. In this research, the context evaluation analyzes the needs and supporters needed by students in taking online learning. The results of this study indicate that the context of the program needs can run, and students can take part in online learning, namely the components of learning facilities at home must have facilities including a room or a place to study at home, furniture to support learning at home, learning aids and learning resources. In the real condition context of learning facilities shows the number 0.03, while its effect on improving student competence has a direct and indirect effect. So that through this context evaluation it is necessary to get the attention of the components of learning facilities at home to be improved as a supporting component for the implementation of online learning because it has a big influence compared to the real situation.

While the context of parents' attention in learning, in fact, the real condition of the context of parental attention shows 0.02, so in increasing student competence it is necessary to increase the attention of parents who have a big influence, either directly or indirectly. In input evaluation, it can contribute in identifying and assessing system capabilities, program strategy alternatives, design procedures for implementation strategies, financing and scheduling. Input evaluation is included in personal analysis, in this case students related to online learning programs. The input evaluation component is the initial ability of the student, the indicators include the value of the subject of ability in the field of printing graphic design expertise, 2D animation, and creative and entrepreneurial products that are needed as an evaluation.

Meanwhile, in process evaluation, which is used to detect or predict a procedure design or implementation design during the implementation stage, provide information for program decisions and as a record or archive of procedures that have occurred. Examining product
evaluation on the results of this study is carried out by defining competence and measuring the criteria for measuring the results that have been achieved (objectively) through collecting scores from the competency test, by demonstrating (performing) using both quantitative and qualitative analysis (Toll & Van Luit, 2013). Student competence which is the product being evaluated shows that the components of online learning are very influential. From the analysis of the level of influence of these components shows the direct effect of parents’ attention in learning the value of gamma (γ) is 0.34, and through learning facilities at home the value of gamma (γ) is 0.20. The effect size is a measure of the research result in the form of a size or effect of the influence of another variable. The effect size is a measure of the magnitude of the effect of a variable on other variables, the magnitude of the difference and the relationship, which is free from the influence of the sample size.

This research shows the direct and indirect influence between variables with different magnitudes with the following details: First, the learning facilities at home have an effect on student competence. The effect size of the direct and indirect effect is between 0.36 - 0.62 and the effect is strong. Every student currently has a laptop and android as a means of visiting learning. By having a learning tool in the form of a laptop/android, internet quota facilities are indirectly available. There are many learning resources available online that are more varied and interesting, ready to be accessed anytime and anywhere. Through these things, it shows that learning facilities at home have a strong effect size.

Second, parents’ attention in learning has an effect on student competence with an effect size and indirect effect between 0.33 - 0.69 and the effect is strong. Parents are obliged to guide, supervise, motivate and fulfill children’s needs in learning. This is shown by parents not wanting their children to not take part in learning which can result in student scores not meeting the minimum completeness criteria, parents always motivating their children to study hard. And parents try to meet the needs of their children in learning such as meeting learning facilities in the form of androids with internet quota.

CONCLUSION

Nowadays online learning has become a necessity in the world of education as well as online learning programs in improving vocational competency which play an important role in the future. This research was conducted to evaluate the effect of the components as a variable in the online learning program which includes home learning facilities, and parents' attention in learning to participate in online learning on student competencies.

The results of the research and discussion that have been carried out show that learning facilities at home have a direct effect on student competence. Meanwhile, parents’ attention in learning has a direct effect on student competence. Based on the explanation above, it shows that the competence of students as a product is influenced directly and indirectly by the context component of learning facilities at home and the attention of parents in learning.

Observing the results of this study, recommendations based on the significance of the results of the hypothesis and the size of their effect are to improve student competence, it is necessary to improve learning facilities at home. With the increase in learning facilities at home, the competence of students will increase. In addition, to improve student competence, parental attention is needed. With increasing parental attention, student competence will automatically increase.

REFERENCES


Copyright holder:
Ema Sumiarti, Rusijono, Andi Mariono (2021)

First publication right:
Journal of Social Science

This article is licensed under: