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# IS ONLINE LEARNING EFFECTIVE IMPLEMENTED IN THE OUTBREAK OF COVID-19? (AN EVALUATION APPROACH IN VOCATIONAL HIGH SCHOOLS)

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## ABSTRACT

The online learning policy has been implemented in Indonesia at all levels of education since March 2020 to prevent the COVID-19 pandemic from spreading. This study aims to evaluate the implementation of accounting learning with an online system using the CIPP (Context, Input, Process, Product) evaluation model. The research subjects consisted of 14 teachers and 256 Vocational High School (VHS) students majoring in Accounting and Finance in Purworejo Regency. The analysis technique used questionnaires and documentation. The results showed that: (1) the success rate of the online accounting learning system in the context aspect obtained a mean score of 3.07 (76%) with a good category; (2) the success rate of online accounting learning system on the input aspect obtained a mean score of 2.81 (72)% in a good category; (3) the success rate of online system accounting learning in the process aspect obtained a mean score of 2.76 (67%) with a good category; (4) the success rate of the online accounting learning system in the product aspect obtains a mean score of 2.98 (75%) with a good category. Based on the results of the study, it can be concluded that the implementation of online system accounting learning during the COVID-19 pandemic is in a good category.

**Keywords**: accounting learning, CIPP model, e-learning, evaluation

## INTRODUCTION

The outbreak of the Novel Coronavirus (COVID-19) is increasingly widespread, urging the government through the Ministry of Education and Culture to announce restrictions on student learning activities at all levels of basic education to higher education. The government issued an online learning policy. Teaching and learning activities are carried out remotely with an online system or e-learning [1]. This policy was implemented to maintain education in Indonesia safe, as well as to reduce the spread of COVID-19.

Online learning is an internet-based teaching and learning activity and interactive media that can be used both inside and outside of school [2]. The use of technology in online learning is considered more effective because it can be done anywhere and anytime [3], [4]. This learning has also become an educational trend applied in the era of the industrial revolution 4.0 because mastery of technology is one part of digital literacy and technological literacy [5].

With this online learning policy, teachers and students need to put more effort into creating a conducive learning climate. This is because online learning is not carried out face-to-face at school but is carried out from home. The implementation of online learning cannot be separated from the role of parents who accompany and facilitate student learning activities.

The success of the teaching and learning process in online learning depends on all the components involved in the learning environment [6] and the characteristics of the learners themselves [7]. The components of the educational environment include teachers, learning infrastructure, learning tools and media, and family environmental factors. Meanwhile, the characteristics of students include motivation and learning resilience [8]. Although online learning is an alternative policy that is considered effective, its implementation is inseparable from barriers. A number of students, teachers and parents complained about obstacles during the learning process.

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Based on the results of the initial interviews conducted by researcher, the main factor that became a problem in the implementation of online learning was the availability of adequate facilities and infrastructure such as computer devices and internet access. In fact, facilities and infrastructure are one of the main factors driving the success of online learning [9]. Students are accustomed to carrying out face-to-face learning and a distance learning culture has not been formed, as a result, students' understanding of learning has not been maximally absorbed.

The online learning policy is applied at all levels of education in Indonesia, including Vocational High Schools (VHS). Students from VHS are expected to be able to become graduates with high quality and competitiveness in the business and industrial world [10]. In line with this vision, the implementation of learning at VHS includes theoretical subjects and practical subjects. This practical activity supports the improvement of skills possessed by students in accordance with their respective expertise programs [11]. However, in the implementation of online learning, practical subjects are considered to have problems because students cannot do practical activities directly and tend to only master theoretical subjects. This is of course, an obstacle in improving students' skills. A number of the problems above indicate the need to carry out an evaluation of the implementation of online learning at the VHS level.

Evaluation of the implementation of online learning at the VHS level aims to provide an evaluation of online learning carried out at the VHS and provide advice on aspects that are considered to have limitations in its implementation. In this context, evaluation also aims to determine the performance, quality, productivity and worth of program implemented in the institution [12], [13]. Evaluation is an assessment of goal achievement through data collection and analysis that is useful for making decisions from a program, and evaluation models are helpful in guiding management, data collection, and analysis [14]. The evaluation model used by this research is the CIPP evaluation model developed by Stufflebeam. The CIPP evaluation model is a comprehensive framework for directing the implementation of evaluation of program objects [15]. The objectives of this study were to examine the implementation of online learning at the VHS level in the aspects of context, input, process and product.

## METHOD

This study is an evaluation research using a quantitative approach. The evaluation model used in this research is the CIPP evaluation model with descriptive analysis. The study was conducted at public and private VHS in Purworejo Regency, Central Java. The research subjects were teachers and students in the department of Financial Accounting and Institutions who were randomly selected. The number of samples in the study was calculated using the Slovin formula [16] to obtain accurate data, as follows:

$$n = \frac{N}{1+Ne^2} \text{ x } 100\% \quad (1)$$

Information:

n : number of samples

N : population size

e : error tolerance = 0.05

Based on the formula above, the research sample information is presented in Table 1. The indicators evaluated in this study are presented in Table 2. The data used in the study were obtained using questionnaires and documentation. The questionnaire is in the form of a closed questionnaire about the implementation of online accounting system learning with four alternative answer choices 1 to 4 based on the use of a modified Likert scale.

The validity of the instrument was assessed using expert judgment. The instrument was tested in the field, and its reliability was calculated using the Alpha Cronbach formula so

that the result was 0.873 and included in the high-reliability category. Quantitative data analysis techniques are used to describe the findings from the data that has been collected from the field. Categorization of the scores obtained in each evaluation aspect uses a normal curve based on the calculation of the ideal mean score (Mi) and Standard deviation (SDi) [12]. The categorization of scores is presented in Table 3.

Tabel 1. Research Sample

| No | School | Teacher | | Student | |
|---|---|---|---|---|---|
| | | Total population | Minimum sample | Total population | Minimum sample |
| 1 | VHS X | 8 | 8 | 200 | 134 |
| 2 | VHS Y | 6 | 6 | 175 | 122 |
| | Total | | 14 | | 256 |

Tabel 2. Evaluation Indicators

| Evaluation | Indicator |
|---|---|
| Context | Learning program objective (C1) |
| | The need for implementing learning program (C2) |
| | Learning program environment (C3) |
| Input | Teacher (I1) |
| | Student (I2) |
| | Infrastructure (I3) |
| | Learning Device (I4) |
| Process | Implementation process (P1) |
| | Teacher's activities (P2) |
| | Student's activities (P3) |
| | Barriers to implementation (P4) |
| Product | Student learning achievement (PD1) |
| | Students' understanding of learning (PD2) |

Table 3. Evaluation Score Categorization

| No | Score | Category |
|---|---|---|
| 1 | $\overline{X}$ + 1.5 SBx ≤ | Very Good |
| 2 | $\overline{X}$ ≤ X < + 1.5 SBx | Good |
| 3 | $\overline{X}$ - 1.5 SBx ≤ X < $\overline{X}$ | Poor |
| 4 | X < $\overline{X}$- 1.5 SBx | Very Poor |

Information:
$\overline{X}$ : average total score
SBx : standard deviation of the total score
X : score obtained

The score that has been received in each aspect is then calculated the percentage of success with the following formula.

$$P = \frac{NS}{NH} x\ 100\% \quad (2)$$

Information:
P : Success percentage
NS : Score obtained
NH : Expected score

## RESULTS AND DISCUSSION

The evaluation of the online learning system is carried out to improve the quality of learning, especially during the COVID-19 pandemic. The evaluation results contain aspects of the context, input, process, and product.

### Evaluation of the Context in Implementation of E-Learning

The results of the evaluation on the aspects of the online system learning context with indicators of program objectives, the need for program implementation and the program implementation environment are listed in Table 4.

Table 4. Context Aspect Evaluation Results

| Evaluation | Indicator | Score | % | Category |
|---|---|---|---|---|
| Context | Learning program objective (C1) | 3.14 | 78% | Good |
| | The need for implementing learning program (C2) | 3.07 | 77% | Good |
| | Learning program environment (C3) | 3.01 | 75% | Good |
| Mean Score | | 3.07 | 76% | Good |

Table 4 shows the evaluation of the context aspect of the objective indicator of the learning program (C1) getting a score of 3.14 with a percentage of 78% included in the good category, the indicators of the need for implementing the learning program (C2) getting a score of 3.07 with a percentage of 77% categorized as good and the online system learning program environment indicator (C3) has a score of 3.01 with a percentage of 75% in the good category. So that the average score

obtained in the evaluation of the online system accounting learning program obtained a score of 3.07 with a percentage of 76%. Effectiveness included in the good category. Obtaining a value for each indicator that is included in the good category shows that in online learning, teachers and students have interpreted the objectives of learning. This online learning is an alternative to learning during the COVID-19 pandemic which provides flexibility in the implementation of the interaction process of students with learning resources [1]. Online learning can replace in-class meeting with the flexibility of online course [17], [18]. Teachers can give greater control to students in the learning process [19] adjusting to the learning schedule of each student [20].

During this pandemic outbreak, online learning is urgently needed to maintain the teaching and learning process. A supportive learning environment also contributes to the implementation of an effective learning process. The learning environment is an important factor in the success of online learning and student learning result [21], [22]. Therefore, the learning environment needs to be prepared as best as possible for the implementation of optimal learning.

A good learning environment in online learning is influenced by family. During a pandemic or other emergency situation, it may be in the best interest of learners' physical, emotional, and financial well-being to move back in with their families [23]. Families give support to students in learning. Support provided such as facilities and learning motivation.

## Evaluation of the Input in Implementation of E-Learning

The results of the evaluation of the online system accounting learning implementation on the input aspect are presented in Table 5. The indicators used in the input aspect include the aspects of teachers (I1), students (I2), infrastructure (I3), and learning tools (I4).

Table 5. Evaluation Results of Input Aspects

| Evaluation | Indicator | Score | % | Category |
|---|---|---|---|---|
| Input | Teacher (I1) | 2.91 | 72 | Good |
| | Student (I2) | 3.08 | 77 | Good |
| | Infrastructure (I3) | 2.43 | 60 | Poor |
| | Learning Device (I4) | 2.97 | 74 | Good |
| Mean Score | | 2.81 | 71 | Good |

Table 5 presents the results of the evaluation of online system accounting learning on the educator indicator (I1) getting a score of 2.91 with a percentage of 72% in the good category, the student indicator (I2) with a score of 3.08 with a percentage of 77% in the good category, while the infrastructure and infrastructure indicator (I3) has a score of 2.43 with a percentage of 74% and the learning device indicator (I4) gets a score of 2.97 with a percentage of 74% in the good category. In the input aspect of the online accounting learning evaluation system, it was obtained an average score of 2.81 with an effectiveness percentage of 71% and was included in the good category.

In general, the input aspect in the implementation of online learning is in the good category. Teachers and students master the use of technology that supports online learning. They can operate and access internet usage properly. The teacher has designed learning so that learning continues to run conducive, such as preparing online learning media, compiling learning implementation plans, implementing learning through WhatsApp group. The role of teachers be more than facilitator. Teachers need to maintain professionalism of fundamentally qualified pedagogical practices in teaching online accounting subject [24]. While students as the subject of learning, it is necessary to understand that online learning as the important ways for students to become successful in learning how to do accounting as well as understand, appreciate and apply this subject. Student and teacher have to engage in classroom [25].

However, the availability of supporting facilities and infrastructure becomes an

inhibiting factor for the implementation of learning, this is because some students do not have computer equipment and have limited internet signals. The implementation of online learning is carried out by most students using cellphones. Internet signal limitations are caused by the geographical location of the mountainous region, thus inhibiting the strength of the internet signal. These problems need attention from both parents and teachers. Given the important role of infrastructure in online learning. With the availability of adequate infrastructure, learning will be more effective, efficient and able to achieve learning objectives [26]. Accounting teacher also have to determine how much online content to use in delivering their courses [27].

## Evaluation of the Process in Implementation of E-Learning

In the aspect of the process of implementing accounting e-learning, the results are summarized in Table 6. The indicators used in the process aspect consist of the implementation process (P1), teacher activities (P2), student activities (P3), and barriers in implementation (P4).

Table 6. Evaluation Results on Process Aspects

| Evaluation | Indicator | Score | % | Category |
|---|---|---|---|---|
| Process | Implementation process (P1) | 2.84 | 71 | Good |
| | Teacher's activities (P2) | 3.00 | 75 | Good |
| | Student's activities (P3) | 2.45 | 61 | Poor |
| | Barriers to implementation (P4) | 2.48 | 62 | Poor |
| Mean Score | | 2.76 | 67 | Good |

Based on the data in Table 6, it is explained that the score on the learning process indicator (P1) is 2.84 with a percentage of 71% in the good category, the educator activity indicator (P2) with a score of 3.00 at a percentage of 75% is in the good category. Meanwhile, the indicators of student activity (P3) and barriers of implementation (P4) were in the poor category, with a score of 2.45 with a percentage of 61% and 2.48 with a percentage of 62%. In the process aspect, indicators that need more attention are indicators of student activity and barriers in the implementation of online learning.

The activities of students get a poor score due to limited learning facilities and infrastructure, so that it hinders students from participating in learning. Some students admit to being less active in participating in online learning because they are not familiar with distance learning. Especially in practical subjects, students tend to be passive. When teaching in class, teacher can "read the room" and make sure everything is going well. However, in online learning, teachers need to struggle to have these skills. Things that can be done to increase the active participation of students include ask students for questions more frequently and build assessment into synchronous events that allow the instructor to ensure that core concepts are clearly understood before moving on [28].

In addition to the lack of learning facilities and infrastructure, student learning barriers also occur due to issues related to transitioning from face-to-face to online, time management, and technology readiness. This is in line with Kar & Shaw [29] stated that considered technology, behavioral characteristics of the learners, and instructors' teaching style as essential challenges in online learning. These challenges led to the need for integrated cooperation from schools, parents, and students to minimize them [30], [31]. Thus, online learning can still run optimally.

## Evaluation of the Product in Implementation of E-Learning

The results of the evaluation on the product aspects of the implementation of accounting e-learning learning are presented in Table 7. The indicators used include learning achievement (PD1) and learning understanding (PD2) of students.

The data in Table 7 shows that the acquisition of an evaluation score on the learning achievement indicator of students (PD1) is 3.06 with a percentage of 76% including in the good category. While in the aspect of learning understanding, students obtained a score of 2.91 with a percentage of 73% in the good category. So that in general the average evaluation score on the product aspect of the implementation of learning is 2.98 with a percentage of 75% effectiveness, including in the good category.

Table 7. Evaluation Results on Product Aspects

| Evaluation | Indicator | Score | % | Category |
|---|---|---|---|---|
| Product | Student learning achievement (PD1) | 3.06 | 76 | Good |
| | Students' understanding of learning (PD2) | 2.91 | 73 | Good |
| Mean Score | | 2.98 | 75 | Good |

Student understanding of learning relate with understand learning learned more in the test situation and displayed more positive learning behaviors in their classrooms [32]. In this study, students' understanding was marked through the active participation of students in the learning process. Students are not shy about asking questions, giving advice, and expressing opinions about accounting learning materials. Teachers always allow students to ask questions if there are chapters that are poorly understood, to ensure students receive the maximum lessons. This is supported by Utami [33] who stated that confirmation activity carried out by the teacher after teaching is important. Confirmation activity as feedback what students produce through teaching experiences, adding information to strengthen mastery of competencies.

A good understanding of learning will result in good learning achievements. Students' learning achievements in online learning are supported by students' ability to utilize technology. students' perceived usefulness of mobile technology impacted their learning achievement [34]. In addition, students' learning achievements are also influenced by their self-motivation and learning environment. Even though there are limitations in implementing online learning, in general the learning outcomes which consist of learning achievement and student understanding are in the good category. This shows that the implementation of online learning has been able to achieve learning objectives, namely providing understanding and transfer of knowledge to students [17].

## CONCLUSION

Based on research results: (1) the success rate of learning online accounting systems in the context aspect obtained a mean score of 3.07 (76%) with a good category; (2) the effectiveness level of the online system accounting learning in the input aspect obtains a mean score of 2.81 (72)% in the good category; (3) the success rate of online system accounting learning in the process aspect obtains a mean score of 2.76 (67%) in the good category; (4) the success rate of online accounting system learning in the product aspect obtains a mean score of 2.98 (75%) with a good category. Therefore, it can be concluded that the implementation of online system accounting learning during the COVID-19 pandemic is in a good category.

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