

Time Management and Learning Strategy in Polytechnic in The Digital Transformation Era

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ABSTRACT

The impact of the digital transformation era is happening at present and individual empowerment has led the students in vocational education to master technology in the learning process. This condition somehow has an impact on the learning process in polytechnic. The purpose of this research is to analyse whether time management is needed in the learning process, what the benefit and strategies of time management are in the learning process, and why in time management there must be used a priority scale. The method in this research used a mixed-method (the quantitative method used for determining sample using random sampling as a respondent, and qualitative method used for describing the results of answer the questionnaire). The respondents of this research are Politeknik Negeri Jakarta (PNJ) students. The data collection techniques using participative observation and questionnaires. The results show that time management is needed in learning activities by students and time management has a benefit for learning activities to make learning activity easier, more comfortable, and more organized into schedule learning. Time management on strategy planning needs for the scale of priority. The implication of this research for the student time management make them have a good commitment, obeying work rules, more effective and productive learning, have a good prioritization in learning facing the digital transformation era.

Keywords: *Time management, learning strategy, digital transformation*

1. INTRODUCTION

Vocational higher education in the current condition has a big chance to answer the industrial need that the important thing in learning process needs a strategy with a good skill and knowledge both students and lecturer in facing digital learning era. Polytechnic as vocational higher education must be able to produce graduates who are ready to work and have competencies based on industry needs. The quality and competence of professional vocational graduates show that the learning process is provided with the right skills, knowledge, and good attitude not only the student but also the teacher. According to Kaushar (2013) explained in this era, higher education in vocational should be effective and develop. The learning objective is an effort of the student into the learning process and can be achieved by formulated learning with the right strategy and used time management priority. Time management is used by the teacher in the learning process for improving reflecting personality values, master the role of teachers, and

develop skill competence in the learning process. Time management is used by the teacher to be able to understand and develop learning tools especially learning in vocational education, arrange and implement the learning program, and able to assess the process and learning outcomes.

Furthermore, Arifin (2012) explained that time management and learning strategy can be interpreted as a process or way that is done by the teacher and student interaction with the environment and experience. In this research, the problem comes up from the student not used time management in the learning process as an important factor to be implemented. What is the learning strategy used for? Another research in language learning strategy according to Cohen (as cited in Shi, 2017) learning strategy as the processes which are consciously selected by learners and which may result in action taken to enhance the learning or use of a second or foreign language through the storage, retention, recall, and application of information about the language. The purpose of this research is to analyse whether time

management is needed in the learning process, what are the benefit and strategies of time management in the learning process facing the digital transformation era, and why in time management there must be a priority scale.

According to Arifin (2012) explained that time management in learning strategy can be interpreted as a process or way that is done by the teacher and student interaction with the environment and experience. Furthermore, Kaushar (2013), and Nasrullah and Khan (2015) explained that time management practices have an impact on the results of students as empirical studies, and also in higher education level the study schedule must properly be planned, implemented, and controlled for better results, helps to develop cost-effective educational. Based on Rombe and Mogga (2016) explained that time management is a system for planning, controlling, and using time most efficiently and effectively, to manage time demands, commitment, and readiness to keep up with its program.

Furthermore, Ahmadi and Prasetya (1997) explained four factors must be considered in the learning strategy, consist of learning strategy to define that the specifications and qualification for student behaviour and personal changes as to what and how to achieve and be the target from the learning activities based on community aspirations and views, choose the main learning approach systems that are deemed most appropriate to achieve the target, for selecting and setting procedures, methods, learning techniques that are considered the most of effective and efficient to be used as a handle of teachers in carrying out their duties, and to established norms and minimum limits of success or criteria and measures of success as teacher guidance in implementing evaluation of learning outcomes which will then serve as feedback for improvements to the overall instructional system. Fatkhurrokhman (2016) argue that the strategies used by the students in obtaining competence in industrial work practices are learning to use the five senses, such as: (1) learning to solve the problems, (2) doing self-learning, (3) used learning through the work environment, (4) continues, and (5) repeated learning. Sutrisno and Siswanto (2016) in previous research explained that the student can have direct experience from industry on the job training, and educational patterns must be made as close as to the conditions of the workforce and can be done relatedly and sustainably.

Furthermore, Hermanto, Sutirman, Hidayati, and Sholikah (2019) explained that practical teaching materials are expected to increase their knowledge, experience, and competency through practical

activities conceptualized similar to work in the industry. According to Rombe and Mogga (2016), a management system is used for planning, controlling, and have a contributing to running the program more efficiently and have a good commitment and readiness to be done. Time management also has an objective, priorities, and monitoring and produced positive values (Claessens, Eerde, Rutte, & Roe, 2007). Cheng (2006) explained that anything delivered, enabled, or mediated by electronic technology for the explicit purpose of learning. According to El-Seoud, Taj-Eddin, Seddiek, El-Khouly, & Nosseir (2014), e-learning has grown in significance as an educational tool just like technology has developed and progressed over the years. Interestingly, there have been more efforts at advancing technology than on attempting to understand the needs and learning styles of individual learners and instructional design.

2. METHODS

The method used in this research is mixed refer to Creswell and Clark (2017) with using the quantitative and qualitative methods. Quantitative method used for defining sample with non-probability sampling from the amount of the student in Business Administration department-PNJ are 1130 student, and qualitative method used for describing and analysis of questionnaire results. Selection of respondents using nonprobability sampling and determining the number of samples according to the Slovin formula in Equation (1).

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

N is the number of samples. N is the total number of combinations while E is the sample error rate (sampling error). Based on the Slovin formula, the calculation to find out the number of respondents can be seen in Equation (2).

$$n = \frac{14.810.469}{1 + 14.810.469 \times (0,10)^2} \quad (2)$$

According to the Slovin formula, the maximum size of the sample is 10%, which is 99 people and round up to 100 people, which means that in this research amount of sample is 100 students of the Business Administration department-PNJ. The data collection techniques used participative observation of the students and questionnaires. The questionnaire consisting of two dimensions, namely: time management with four questions and priority scale in the learning process strategy with five questions. The questionnaire used a Likert scale (1-5) with a statement such as SNA (Strongly Not Agree-scale1), NA (Not

Agree-scale 2), D (Disagree-scale 3), A (Agree-scale 4), and SA (Strongly Agree-scale 5). The statement of two dimensions questions in questionnaire such as the need of time management, strategy in the learning process, strategy using in defining of the task, priority of work, the objective of learning, the impact of results implementation time management and learning in the digital era. The method used in this research is a mixed-method and different from previous research conducted by Claessens et al., (2007), Kaushar (2013), Arifin (2012), Rombe and Mogga (2016), and Adams and Blair (2019) used qualitatively for learning strategy process.

3. FINDINGS AND DISCUSSION

The first question in this research focuses on how the impact of using time management and learning strategy is still needed in the learning process. Referring to a study conducted by Hermanto et al. (2019), time management for practical teaching materials is expected to increase their knowledge, experience, and competency through practical activities conceptualized similar to work in the industry. The results of their research have similar to this research, 85% of respondents agree that time management is needed, and the impact of time management can increase their knowledge, experience, and also competency.

Referring to Adams and Blair (2019) on previous research, time management research conducted on the relationship between time management as variable X1, and self-efficacy as variable X2, procrastination as variable Y, the result of the research shows that time management and self-efficacy only contributed to the emergence of procrastination behaviour by 21.3%, while the teacher’s ability to manage time is very high (90,91%). The second question in this research also have the answer from respondent talking about the division of tasks a time management strategy is necessary (84%) and this result similar with Rombe and Mogga (2016) research, time management system strategy used for planning, controlling and have a contribution for running the program and have a good commitment and readiness to be done. Talking about the priority scale of time management, the results show that the students agree (83%) to have a priority scale in time management and still needed to determine the urgency of study and lecture assignments.

This result has similar to Claessens et al., (2007) research, time management also has an objective, priorities, and monitoring, and produced positive values. Table 1 and Table 2 describes the statement for time management, prioritization, and the learning process used a Likert scale (1-5). From Table 2 we can see about prioritization and learning process there is

priority scale in time management is needed to determine the urgency of study and lecture assignments (83%).

Table 1. The dimension of time management

STATEMENT	S N A	N A	D	A	SA	AS	%
Learning strategies for the student are needed in the application of time management and increase their knowledge, experience, and competency	1	1	1	67	30	424	85
Learning strategies are carried out to make it easy and comfortable to schedule learning	1	1	2	64	32	425	85
Strategies are needed in obeying the rules in the workplace	1	1	1	74	23	417	83
The division of tasks in a time management strategy is necessary	1	1	1	76	21	418	84

Referring to Fatkhurrohman (2016) the strategies used by the students in obtaining competence in industrial work practices is similar to the results of this research the main priority at this time is graduating from college (85%) and the target after graduating from college is to be able to work (84%).

Based on learning outcome graduate from polytechnic as vocational higher education, they have excellent soft skill and hard skill. The student learning process in Politeknik Negeri Jakarta (State Polytechnic of Jakarta) focuses more on practice (60%) and theory (40%).

Table 2. Prioritization and learning process

STATEMENT	S D A	N A	D	A	SA	A S	%
The priority scale in time management is needed to determine the urgency of study and lecture assignments	1	1	2	74	22	415	83
The main priority at this time is graduating from college	1	1	2	49	44	425	85
The target after graduating from college is to be able to work	1	1	1	64	32	422	84
There is a target task that is carried out in accordance with the medium-term planning during lectures each year	1	1	2	82	14	407	81
Some tasks are carried out in accordance with short-term planning (daily, weekly and monthly) so that lectures can run smoothly.	1	5	3	73	18	404	81

In the current condition, the regulation in the learning process for polytechnic involves practitioners come from the industry for sharing knowledge and experience to the student about the real situation at the workplace. The learning process used time management as a strategy for the student to become important and meaningful. Based on a questionnaire from the student in this research, there is a target task that is carried out in accordance with the medium-term planning during lectures each year (81%) and also there are tasks that are carried out in accordance with short-term planning for daily, weekly and monthly task.

Time management used in the learning process especially in the digital era should have the task of priority, combined two types of planning in the learning process, such as short-term planning for doing some task or assignment from the lecturer, and middle-term planning for finishing their study in polytechnic. The limitation in this research, it should be more specific the question on the questionnaire for time management using in learning strategy combine with digital information such as e-learning especially in vocational education (polytechnic), and also the dimension of priority scale using in learning strategy especially for vocational in higher education.

In the digital transformation era, the learning process provided by lecturers must have the ability to deliver with the digital-based material subject and can be accessed by students easily, provide provisions to face the challenges and competition in competitive of work. Time management could be an important factor in planning the objective of digital learning using e-learning by the student as a part of the learning outcome of the subject. E-learning as a choice of method for the learning process in the digital transformation era has grown into an educational tool just like used technology has developed and progressed every year, and this condition has an impact not only for the lecturer but also for the students in the learning process. E-learning also has transformed the educational sector by enabling students to have good information very fast from open source, share data information more easily with others, and can be accessed from anywhere without being limited by place and time.

Furthermore, El-Seoud et al., (2014) explained that web-based learning is used nowadays as another option to facing to face education. Commonly, web-based learning can increase in a direct proportion with the increase in the number of students. The impact of this situation used web-based learning for the lecturer as an educator exert a lot of effort to help the students as a learner to get interactive and creative content that is

full of used multimedia as it has been proven that it has a significant effect on the process of learning.

4. CONCLUSION

Time management is more important and still needed for the student and lecturer in the learning process. The strategy in the learning process in the current condition is needed to answer the external changes such as digital transformation and have an impact in the learning process, there are several methods in the learning process can be adopted such as e-learning and distance of learning. In this research, it is found that impact of time management and priority scale in the learning process for the student in polytechnic as vocational higher education have a good commitment, obeying work rules, more effective and productive learning, and good prioritization. Time management gives students time to carry out the target of the task, have good planning in the learning process, increase skill, knowledge, and good attitude. Time management used in the learning process is similar to the previous research (Rombe & Mogga, 2016, Claessens et al., 2007; Hermanto et al., 2019).

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