Teachers' Mastery of Pedagogical Competencies in the Learning Process at SMK Negeri 1 Polewali

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Abstract. A teacher is an educator who is a figure, and role model and has authority and responsibility for the education of students, therefore a teacher must master competencies by continuing to develop the competencies that exist within him. This research aims to determine teachers' mastery of pedagogical competence in the learning process at SMK Negeri 1 Polewali. This research is quantitative research with a descriptive research type. The sample in this study was 59 teachers using simple random sampling techniques. The data collection techniques used are observation, questionnaires, and documentation. Based on the results of this research, show that teachers' mastery of pedagogical competence in the learning process at SMK Negeri 1 Polewali with a percentage level of 91.26%, this shows that teachers' understanding of students, learning materials, developing curriculum, organizing educational learning, utilizing ICT, facilitating the development of students' potential, communicating effectively, empathetically and politely with students, carrying out assessments and evaluations of learning outcomes processes, utilizing assessment and evaluation results for learning purposes, and carrying out reflective actions to improve the quality of learning are in the very good category. The results of this research show that it is important for teachers to master pedagogical competencies to be able to manage learning and encourage students to play an active role in the learning process by creating interesting and enjoyable learning.

Keywords: Teachers, learning, mastery, pedagogical competence

1. Introduction

Education is an effort to improve the welfare of human life which is part of national development. Education is expected to contribute to developing the nation's next generation into quality citizens who are able to face academic and business challenges in the future. Quality education is the main requirement for realizing an advanced, prosperous, and modern national life, (Akib et al., 2021; Arhas & Aryandi Septian, 2023; Darwis & Indra, 2023; Saleh, Marsina, et al., 2021; Zhang, 2023). This can be realized if we have reliable educational staff who are able to produce a generation of smart and moral people.

Teachers play a very important role, the presence of teachers to date can never be replaced by other people, especially in multi-cultural Indonesian society so the presence of technology cannot replace teachers' tasks which are quite complex and unique. In accordance with Republic of Indonesia Republic of Indonesia Government Regulation Number 74 of 2008 Concerning Teachers Article 1 Paragraph 1, it is stated that "professional educators have the main task of educating, teaching, guiding, directing, training and evaluating students in early childhood education in the secondary education pathway". The existence of professional teachers is one of the requirements that must be met in order to improve the quality of education in Indonesia so that it can compete with other developing countries.

Teachers are an influential component in creating quality educational processes and outcomes. Becoming a teacher is not an easy thing to do. Being a teacher basically requires the ability to control yourself and others. Education requires teachers who are professionals in their field so that the graduates can change their behavior to become better individuals and increase their knowledge after undergoing education.

A professional teacher is a teacher who is able to carry out his main duties as an educator and instructor which includes the ability to plan, implement, and evaluate learning outcomes (Darwis et al., 2022; Ifeakor & Odo, 2017; Saleh, Darwis, et al., 2021).
In the teaching profession, there are several competencies that must be mastered for a teacher to be able to develop himself to better understand the nature of the teaching profession in order to become a professional teacher. The competency in question is divided into 4 (four) domains as confirmed by Law Number 14 of 2005 concerning Teachers and Lecturers, competency includes personality competency, social competency, professional competency, and pedagogical competency obtained through professional education.

Personality competency is related to the moral maturity and authority that teachers must have. Social competence relates to how a teacher is able to create a comfortable, effective, and enjoyable learning environment so that the knowledge taught can be maximally absorbed by students. Professional competence is a teacher's ability to master the material in a broad and in-depth manner, while pedagogical competence requires that a teacher be able to understand student development, understand learning design and understand how learning is implemented, understand how learning is evaluated, and understand how students actualize their potential. Students have, while "pedagogical competence is the teacher's ability to manage student learning, (Idris, 2019). Pedagogical competence is very necessary so that teachers are able to manage learning and encourage students to play an active role in the learning process by creating interesting and enjoyable learning (Aalto et al., 2019; Saleh & Arhas, 2019).

This research aims to determine teachers' mastery of pedagogical competence in the learning process at SMK Negeri 1 Polewali. The indicators of pedagogical competence in Minister of Education Regulation Number 16 of 2007 Concerning Academic Qualification Standards and Teacher Competencies include 1) Mastering the characteristics of students 2) Mastering learning theories and principles of educational learning 3) Developing related curricula in the subjects taught 4) Organizing educational learning 5) Utilizing ICT for learning purposes 6) Facilitating the development of students' potential 7) Communicating effectively, empathetically and politely with students 8) Carrying out assessments and evaluations of learning processes and outcomes 9) Utilizing the results of assessments and evaluations to learning interests 10) Carry out reflective actions to improve the quality of learning.

2. Method

This research uses quantitative methods. This research took place at SMK Negeri 1 Polewali, Kab. Polewali Mandar, West Sulawesi. The population in this study was 68 Polewali State Vocational School 1 teachers. The sample in this study was taken based on the Krejcie table at a significance level of 5%. If the population is 68 people, the sample will be 59 people. The sampling technique is Simple Random Sampling because sampling members from the population is carried out randomly without paying attention to the strata in the population.

Data collection techniques consist of observation, questionnaires, and documentation of research implementation. Pedagogical competency indicators include 1) Mastering the characteristics of students; 2) Mastering learning theory and educational learning principles; 3) Developing a curriculum related to the subjects taught; 4) Organizing educational learning; 5) Utilizing ICT for learning purposes; 6) Facilitate the development of students' potential; 7) Communicate effectively, empathetically and politely with students; 8) Carrying out assessments and evaluations of learning processes and outcomes; 9) Utilize assessment and evaluation results for learning purposes; 10) Carry out reflective actions to improve the quality of learning by measuring variables using a Likert scale. The data analysis technique in this research consists of descriptive statistics using percentage analysis. The statistical tool used to analyze the results of this research is Microsoft Office Excel software.
3. Results and Discussion

The results of the research include teachers’ mastery of pedagogical competence in the learning process at Polewali State Vocational School 1. The research results consist of descriptive statistical analysis. Descriptive analysis provides a descriptive overview of the data obtained through the achievement of pedagogical competency indicators obtained from percentage analysis as follows:

Teacher pedagogical competence is the ability to carry out learning, both in managing, implementing learning, and evaluating learning. In this research, the measurement of pedagogical competence at SMK Negeri 1 Polewali consists of 10 indicators, namely mastering the characteristics of students, mastering learning theories and principles of educational learning, developing a curriculum related to the subjects being taught, organizing educational learning, utilizing ICT for learning purposes, facilitating the development of students’ potential, communicating effectively, empathetically and politely with students, carrying out assessments and evaluations of learning processes and outcomes, utilizing assessment and evaluation results for learning purposes, and carrying out reflective actions to improve the quality of learning. The following are the results of the descriptive analysis of each indicator:

Table 1
Descriptive Analysis Per Indicator of Teacher Pedagogical Competency Mastery

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>n</th>
<th>N</th>
<th>Achievements %</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mastering Learner Characteristics</td>
<td>2384</td>
<td>2655</td>
<td>Very good</td>
<td>Very good</td>
</tr>
<tr>
<td>2</td>
<td>Mastering Learning Theory and Educational Learning Principles</td>
<td>1418</td>
<td>1770</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>3</td>
<td>Developing a curriculum related to the subjects taught</td>
<td>1130</td>
<td>1180</td>
<td>Very good</td>
<td>Very good</td>
</tr>
<tr>
<td>4</td>
<td>Organizing educational learning</td>
<td>1121</td>
<td>1180</td>
<td>Very good</td>
<td>Very good</td>
</tr>
<tr>
<td>5</td>
<td>Utilizing ICT for learning purposes</td>
<td>236</td>
<td>295</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>6</td>
<td>Facilitate the development of student's potential</td>
<td>562</td>
<td>590</td>
<td>Very good</td>
<td>Very good</td>
</tr>
<tr>
<td>7</td>
<td>Communicate effectively, empathetically, and politely with students</td>
<td>284</td>
<td>295</td>
<td>Very good</td>
<td>Very good</td>
</tr>
<tr>
<td>8</td>
<td>Carrying out assessments and evaluations of learning processes and outcomes</td>
<td>1381</td>
<td>1475</td>
<td>Very good</td>
<td>Very good</td>
</tr>
<tr>
<td>9</td>
<td>Utilizing the results of assessments and evaluations for learning purposes</td>
<td>836</td>
<td>885</td>
<td>Very good</td>
<td>Very good</td>
</tr>
<tr>
<td>10</td>
<td>Carry out reflective actions to improve the quality of learning</td>
<td>545</td>
<td>590</td>
<td>Very good</td>
<td>Very good</td>
</tr>
</tbody>
</table>

Source: Questionnaire Results

Pedagogical competence is the ability possessed by teachers in carrying out the teaching and learning process. Based on this indicator, a score of 2384 was obtained from a total score of 2655 with an achievement percentage of 89.79%, which shows that the mastery of characteristics in students is measured based on the teacher's understanding of the differences in student characteristics, recognizing the differences
in character of each student will make it easier. teachers in identifying students' learning potential and difficulties are in the very good category. In the second indicator, a score of 1418 was obtained from a total score of 1770 with a percentage level of achievement of 80.11%, which shows that mastery of learning theories and principles, as measured by the teacher's understanding of various learning theories and principles related to the subjects being taught, is in a good category. In the third indicator, a score of 1130 was obtained from a total score of 1180 with a percentage achievement level of 95.76%, which shows that curriculum development is measured based on the teacher's ability to develop the curriculum, determine learning objectives, and select learning materials that are appropriate to the subjects taught, is in the very good category.

In the fourth indicator, a score of 1121 was obtained from a total score of 1180 with a percentage level of achievement of 95%, which shows that implementing educational learning is measured based on the preparation of RPP (Learning Implementation Plan) made by teachers to carry out educational learning in the classroom, laboratory and in the field, is in the very good category. In the fifth indicator, a score of 236 was obtained from a total score of 295 with an achievement percentage level of 80%, which shows that Utilizing ICT in learning, which is measured based on the teacher's ability to use or utilize technology in the learning process, is in a good category. In the sixth indicator, a score of 562 was obtained from a total score of 590 with a percentage achievement level of 95.25%, which shows that facilitating the development of students' potential, which is measured based on the teacher's ability to encourage and motivate students to continue to develop their talents and potential, is within very good category.

In the seventh indicator, a score of 284 was obtained from a total score of 295 with a percentage level of achievement of 96.27%, which shows that communicating effectively, empathetically, and politely with students is measured based on the teacher's ability to get closer to students by having the ability to communicate. who are effective, empathetic and polite, both verbally and in writing or in other forms, are in the very good category. In the eighth indicator, a score of 1381 was obtained from a total score of 1475 with a percentage level of achievement of 93.62%, which shows that carrying out assessment and evaluation of learning processes and outcomes is measured based on the teacher's understanding in determining procedures for assessing and evaluating learning outcomes so that they can be assessed and evaluated. according to the characteristics of the subjects taught, it is in the very good category. In the ninth indicator, a score of 836 was obtained from a total score of 885 with a percentage level of achievement of 94.46%, which shows that utilizing assessment and evaluation results for learning purposes is measured based on the teacher's understanding of using or exploiting information from assessment and evaluation results to determine learning mastery and used to design enrichment and remedial programs for students who do not achieve learning mastery, are in the very good category. In the tenth indicator, a score of 545 was obtained from a total score of 590 with a percentage level of achievement of 92.37%, which shows that carrying out reflective actions to improve the quality of learning, which is measured based on the teacher's ability to carry out reflective actions on the learning process or on the learning that has been implemented, is in the very good category.

Discussion

Teacher pedagogical competence is a teacher's ability to educate or teach, or simply can be interpreted as the art of teaching, in line with the opinion expressed Hatta (2018, p. 79) that pedagogical competence is a description of a teacher's ability to manage learning, which has characteristics that can differentiate teachers from other professions. This research attempts to answer a main problem, namely how teachers master pedagogical competence in the learning process at Polewali State Vocational
School 1, based on Minister of Education Regulation Number 16 of 2007, indicators of teacher pedagogical competence can be seen from 10 (10) indicators, including:

3.1 Mastering Learner Characteristics

Mastering the characteristics of students related to physical, intellectual, social-emotional, moral, spiritual, and socio-cultural background aspects. As a teacher or educator, teachers must be able to identify students’ learning potential and difficulties, therefore teachers need to understand the characteristics of students and provide the same treatment without any differences in actions to students, even though each of them has differences, because of this is something that must happen because students come from various environmental backgrounds and various kinds of experiences that have been passed through which shape their character, "Teachers are expected to have knowledge and understanding of children's personal backgrounds so they can identify the problems faced by children and determine appropriate solutions and approaches" (Clark & Mayer, 2016; Ehlers, 2004; Yin et al., 2019). Based on the results of research conducted on teachers at SMK Negeri 1 Polewali, students' mastery of characteristics was classified as very good. The results of observations, show that teachers treat students without differentiating between physical form, intelligence, and even social status of students, as can be seen from the teacher who reprimands students if the class atmosphere starts to get noisy without looking at the student's physical form, intelligence, and social background. learners. Apart from that, the teacher also understands the differences in the level of intelligence of each student which can be seen when the teacher explains the assignment given and must be completed right away, but there are students who find it difficult to understand the teacher's explanation, so the teacher explains it again in language that is simpler and easier to understand.


By understanding learning theories and educational learning principles, it is hoped that teachers can apply various approaches, strategies, methods, and learning techniques related to the subjects taught. Teachers are dedicated to mastering the theories and principles of learning by carrying out varied learning activities and choosing the right methods to increase participants' learning motivation. This view is in line with the opinion expressed by Solihin (2016) that applying learning theory by choosing the right method.

Based on the results of research conducted on teachers at SMK Negeri 1 Polewali, mastery of learning theories and learning principles is classified as good. From the results of observations, it is known that teachers create student-centered learning activities, in which students are more active. Apart from that, when learning Indonesian with the teaching material "Theater", the teacher divides the learning into groups. In line with what was found Indrawan et al (2020, p. 36) that “teachers are able to determine various approaches, method strategies, and educational learning techniques." This shows that the teacher understands and applies learning approaches and methods according to the subjects being taught. The role of teachers in developing the curriculum and activities carried out so that education becomes better, because the curriculum itself acts as a guide for a teacher (educator) to determine the design of the learning process at each institution.

3.3. Developing a Curriculum Related to the Subjects taught

Teachers not only implement the curriculum but also develop the curriculum, so it is the teacher's job to implement and develop the curriculum for the subjects taught. Curriculum development can include competency standards and basic competencies in the syllabus. According to Mulyasa (Haswindy 2018a) that the syllabus is a learning plan for a group of subjects with a certain name which includes competency standards, basic
competencies, learning materials, indicators, assessments, time allocation and learning resources developed by each educational unit.

Based on the results of research conducted on teachers at SMK Negeri 1 Polewali, curriculum development related to the subjects taught is classified as very good. The results of observations, show that teachers are able to develop the curriculum by developing competency standards and basic competencies into the syllabus and RPP (Learning Implementation Plan). In line with research conducted by Talitha, Sugianto, dan Alipatan (2021a, p. 17) that teachers can prepare a syllabus according to the curriculum created jointly through the MGMP forum, then design lesson plans developed by teachers in accordance with what is stated in the syllabus with the conditions in the educational unit which includes subjects, main material, time allocation, learning objectives, KD and indicators of competency achievement, learning materials, learning methods, learning resource media and tools, steps for learning activities and assessments.

The role of teachers in developing the curriculum and activities carried out so that education becomes better, because the curriculum itself acts as a guide for a teacher (educator) to determine the design of the learning process at each institution.

3.4. Organizing Eduative Learning

Organizing educational learning, not only carrying out learning, but in organizing educational learning, teachers need to plan, conceptualize, implement and even carry out evaluations. According to Talitha et al., (2021b) that teachers must have the competence to carry out educational and dialogical learning. This means that the implementation of learning must start from a dialogical process between fellow learning subjects, so as to give rise to critical thinking and communication.

Based on the results of research conducted on teachers at SMK Negeri 1 Polewali, organizing educational learning is classified as very good. The results of observations, show that the teacher is able to design a lesson plan, then carry out the activities listed in the lesson plan, get used to educational learning such as preparing the class, greetings and praying, and then carrying out evaluations after the lesson is finished.

3.5. Utilizing Information and Communication Technology for Learning Benefits

The use of media in learning will really help in the teaching and learning process, according to P. Buckley and E. Doyle in Salam, Akib, and Daraba (2018, p. 1102) "The use of learning media in the learning process can arouse new desires and interests, generate motivation and stimulate learning activities, and even have a psychological influence on students." The use of technology in education and learning (e-learning) is intended to facilitate or make learning activities more effective".

Based on the results of research conducted on teachers at SMK Negeri 1 Polewali, the use of ICT for learning purposes is classified as good. The results of observations show that teachers are able to use learning tools during the learning process, one example of which is the use of presentation media (PowerPoint) used by teachers to present learning material so that teachers and students will be more helped in terms of time because teachers no longer need to write on the whiteboard, so that more time is used for discussion. According to Rusman (2011, p. 23) that through PowerPoint media it is hoped that students will be more focused on the learning process in the sense that students will be motivated to read the text presented on PowerPoint slides so that they can understand the content of the text quickly and accurately.

The use of PowerPoint presentations can create opportunities to build skills and the use of PowerPoint is an excellent aid for presentations from a pedagogical point of view because it makes students active in learning and prevents students from becoming passive. In line with the opinion, Cornwell in Rachmat and Winata (2019, p. 41) learning media has various types, one of which is slide media using the Microsoft Powerpoint
program which can clarify the message conveyed and can make students active in learning”.

3.6. Facilitate the development of students' potential to actualize their various potentials

Teachers must develop students to actualize the various potentials they have. Apart from being professional teaching staff, teachers also act as facilitators in developing or actualizing the various talents and potential that students have. Actualizing the various potentials that students have can generally be done by facilitating a place or forum for students who have potential and want to develop their talent he has. In line with Ina Magdalena’s opinion in (Talitha et al., 2021b) stated how many roles teachers have to play for students, a teacher must be able to help with the difficulties faced by students in the learning process, especially in developing students' talents and interests. This is a symbol that a teacher is required to develop the talents he is interested in.

Based on the results of research conducted on teachers at SMK Negeri 1 Polewali, facilitating the development of students' potential to actualize their various potentials is classified as very good. The results of observations, show that teachers encourage students to develop their talents or potential, one of which is by having an art studio as a forum for those who want to develop their talents.

3.7. Communicate Effectively, Empathetically, and Politely with Students

In the effective communication learning process, the aim is that the recipient or student can understand the message conveyed by the communicator or teacher. Communication is said to be effective if the message conveyed by the teacher has the same meaning as the message received by the recipient or student. Apart from that, teachers must also pay attention to politeness in the form of attitudes and language used in communicating with students. In line with the opinion Suprihatiningisih (2016, p. 36) explains that effective communication is communication that aims to enable students to understand the message conveyed by the teacher and provide feedback that is appropriate to the message. The feedback can be in the form of approval or disagreement, but the most important of all is that the teacher and students understand the message correctly.

Based on the results of research conducted on teachers at SMK Negeri 1 Polewali they are in the very good category. From the observation results, it is known that communicating effectively, empathetically, and politely with students is classified as very good, indicating that teachers carry out effective communication as seen from the reciprocity between teachers and students during the learning process, where students are able to provide feedback on questions asked by them. Teacher during the teaching and learning process takes place.

3.8. Organizing Assessment and Evaluation of Learning Processes and Results

In this case, teachers must be able to carry out continuous assessments of learning processes and outcomes and evaluate the effectiveness of learning processes and outcomes. And teachers are able to analyze assessment results to identify the abilities and weaknesses of each student, for the purpose of designing remedial and enrichment programs. Dirman, Juarsih, and Cich (2014a, p. 32) says that assessment or evaluation of learning outcomes is the process of giving grades to the learning outcomes achieved by students using certain criteria. This suggests that the object being assessed is the student's learning outcomes.

Based on the results of research conducted on teachers at SMK Negeri 1 Polewali, conducting assessments and evaluations of learning processes and outcomes was classified as very good. The results of observations, show that the teacher carries out assessments during the learning process to find out the extent of students' understanding
of the learning material. During Islamic Religious Education learning, the teacher asks questions about recitation and students who can provide correct examples will get additional points. “Process assessment at each meeting can be carried out at the beginning, middle, or end of the meeting” Kunandar (2010, p. 17). In addition, teachers evaluate the learning material taught to be able to detect the abilities and weaknesses of each student, and as a form of formulating the need for continuous improvement in student learning outcomes.

3.9. Utilizing the Results of Assessment and Evaluation of Learning Processes and Results

Teachers use assessment results to improve learning programs and activities, therefore the programs that have been designed, the learning strategies that have been prepared, and the materials that have been prepared need to be evaluated, revised, or perhaps replaced if they are found to be ineffective in helping students achieve competency. Meanwhile, for students who need remedial, remedial is given to students who have not reached the learning completion criteria.

According to Dirman et al. (2014b) that the results of learning outcomes evaluation activities are aimed at diagnostics and development", what is meant by the results of evaluation activities for diagnostics and development is the use of the results of learning outcomes evaluation activities as a basis for diagnosing students' weaknesses and strengths and their causes, based on this diagnosis teachers develop learning activities to improve student learning outcomes. Apart from that, according to Arifin (2014, p. 166) "The results of the evaluation can also be used by teachers to determine the grouping and placement of students based on their individual achievements".

Based on the results of research conducted on teachers at SMK Negeri 1 Polewali is in the very good category. From the results of observations, it is known that the use of assessment results and evaluation processes and learning outcomes is classified as very good, seen from the teacher holding remedial measures or providing opportunities for students who do not reach the KKM score (Minimum Completeness Criteria) to complete the scores before carrying out the semester exam on June 6, apart from that, the teacher also provides a grid of questions as a learning reference before carrying out the semester examination, this shows that the teacher uses information from assessment and evaluation results to design remedial programs and determine learning completion, this is in line with the opinion expressed by (Dirman et al., 2014b) that remedial learning needs to be held if students' grades do not reach the KKM.

3.10. Reflective take action to improve the quality of learning

Reflective action is the act of reviewing the learning process that has been carried out. The benefits of reflective action are carried out so that teachers can evaluate the learning process, including media, methods, materials, students, and even the teacher's own appearance. According to Niswaty & Arhas (2019) reflection can improve learning and competence.

Based on the results of research conducted on teachers at SMK Negeri 1 Polewali they are in the very good category. From the results of observations, it is known that carrying out reflective actions to improve the quality of learning is classified as very good, showing that at the end of the lesson the teacher discusses the learning process that has been implemented, by asking about the obstacles experienced by students as well as effective learning media used at the next meeting, this shows that the teacher reflects on the learning that has been implemented.
4. Conclusion

Based on the results of data analysis and discussion regarding Mastery of Teacher Pedagogical Competencies in the Learning Process at SMK Negeri 1 Polewali, the results of this research can be concluded to be in the very good category as measured by several indicators, namely teacher mastery of student characteristics relating to physical and moral aspects, social, cultural, emotional, and intellectual. The teacher’s mastery of learning theory and the principles of educational learning, the theory and learning that will be conveyed is also very important because this is the main thing that the teacher will do in accordance with his goal, namely to make the nation’s life more intelligent. Pedagogical competence also relates to how teachers develop the relevant curriculum in the subjects they teach. Furthermore, teacher mastery in carrying out educational learning, teacher mastery in utilizing ICT for learning purposes, teacher mastery in facilitating the development of students’ potential, facilitating students to be able to develop their own potential, teacher mastery in communicating well with students, communicating effectively, empathic and polite, teacher mastery in carrying out assessments and evaluations of learning processes and outcomes, teacher mastery in utilizing assessment and evaluation results for learning purposes and teacher mastery in carrying out reflective actions to improve the quality of learning.

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