Preliminary study of lecturer competency analysis in learning at health universities

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ABSTRACT

Practical learning in higher education, especially in the health sector, requires the involvement of competent lecturers to ensure the development of student professionalism. This research aims to reveal the results of the analysis regarding lecturer competence in practical learning at universities in the health sector. Lecturer competence is the variable studied with indicators including pedagogical competence, personality competence, social and professional competence. The method used in this research uses a descriptive quantitative approach. The data collection technique uses primary data from a sample of 50 students with a sampling technique using cluster sampling. Data collection uses instruments that have passed the validity and reliability process. Data analysis in this study used descriptive analysis techniques. The results of this research indicate that overall, the average lecturer competency of all indicators is categorized as adequate with a score of 2.94 and an achievement level of 73.60. Only one of the four lecturer competency indicators, namely personality competency, received good criteria, while the other three received sufficient categories. The implication of the results of this research is that higher education institutions can use this information as a basis for designing training or professional development programs for lecturers. The focus of training can be directed at specific aspects that are deemed to need improvement, such as pedagogical, professional, and social competencies.

Introduction

The quality of higher education is influenced, among other things, by lecturers as pillars of the educational process in higher education institutions. Quality higher education is education that is able to integrate the activities of the three main fields synergistically (Arifin, 2017). These three main things are administrative and leadership, instructional and curricular areas, as well as coaching students in practical guidance (Segita et al., 2016). The implementation of practical learning is an important element in vocational and vocational education which measures the quality of achieving educational goals. Learning is said to be effective if the implementation of practical activities is carried out well (Fitria et al., 2019). Learning activities in class and implementation of learning in the laboratory are supported by lecturer competence as a pillar of the process learning. Lecturers as educators are required to have learning delivery strategies, organizing strategies and learning management strategies.
Various research results have stated that lecturer competence consists of pedagogical competence, personality competence, social competence and correlation and has an influence on improving professional student learning outcomes (Hidayati, 2015; Mendikbudristek, 2023; Novita & Yulianti, 2020; Pulungan & Arda, 2019; Sinambela, 2017). However, the problem that occurs in the field is that the practical learning process is not yet optimal because the schedule and flow sometimes change. Students carry out independent learning without the assistance of a nursing practicum supervisor. As a result, when they experience difficulties there is no one to direct them. The practicum manual that has been implemented has not been completely prepared. This happens due to lack of communication, availability of time for practical learning guidance, lack of cooperation between lecturers and students so that sometimes students feel less close and good emotional relationships are not established. The assessment and evaluation of practicum learning activities is not optimal because it is still carried out at the end of the learning process, not while learning is taking place, so that the feedback provided is only on learning results. Guided practicum learning is only carried out once regardless of the student's level of achievement. And the remedial system is rarely implemented for students who are not yet competent. These problems are an illustration that the quality of educators' competence in nursing practice is still weak. Teaching requires knowledge and experience so that the strategies used in implementation are appropriate to the learning development of students so that learning objectives can be achieved (Priambodo, 2013).

This research aims to describe the competence of lecturers at the health college where this research was conducted. This is done by examining each indicator in the lecturer competency variable which consists of pedagogical competency, personality competency, social and professional competency. Personality competency with indicators of steady & stable personality, mature personality, wise and authoritative personality and noble moral personality (Suryanti & Har, 2020). Pedagogical competency with indicators of understanding students, designing learning, implementing learning, designing and carrying out evaluations and developing students (Rahman et al., 2019; Sadri, 2019). Professional competency with indicators of mastering the substance of knowledge, mastering structure and methods, mastering critical studies and technology, clarity in presenting material and classroom management (Nento, 2018; Novita & Yulianti, 2020; Sinambela, 2017). Social competence with indicators, namely the ability to communicate and socialize, the ability to act inclusively, the ability to work together and not be discriminatory (Halim et al., 2021; Novita & Yulianti, 2020; Sulindra, 2015).

The quality of education is the main focus, with lecturers acting as the central pillar in presenting an effective educational process (Sinambela, 2017). The concept of quality education increasingly feels urgent, which includes synergistic integration of three core aspects, namely administration and leadership, instructional and curricular areas, as well as student development in practical guidance (Sulistyorini, 2023). More than just conveying information, lecturers in higher education are expected to be able to combine these dimensions to create a learning environment that combines theory and practice, as well as personal development for students.

Previous research has suggested that lecturer competence, including pedagogical, personality, social and professional competence, plays a central role in influencing student learning outcomes. However, real challenges are seen in the implementation of practicum learning, where varying schedules and a lack of assistance by practicum supervisors cause students to find it difficult to understand and overcome problems. This study will not only detail the indicators of each competency dimension, but also aims to provide a holistic view of how these competencies can interact with each other and support the creation of an ideal learning environment. With a better understanding of these aspects, it is hoped that corrective steps can be taken to increase the effectiveness of practicum learning and the overall quality of education in health higher education institutions.

**Method**

This research is a type of research with descriptive quantitative methods that will describe research findings data about lecturer competence using a number-based approach that represents the results of an assessment of an event. As a non-associative descriptive research, this research aims to examine the variables studied without looking for their relationships with other variables. So the research results and discussion in this study only describe the findings of the lecturer competency variable without correlating it with other variables.

This research was conducted at two universities, namely AKPER Baiturahmah and STIKES Mercubaktijaya in Padang City. West Sumatra, Indonesia. This research took samples from 50 students in the nursing study program using cluster sampling techniques. The criteria used in selecting the sample in this
study were health universities that have a D-3 nursing study program that has more than 25 students in one class. Then there are health colleges which have D-3 and Bachelor of Nursing study programs.

The instrument used in this research uses a Likert scale questionnaire to measure lecturer competency variables. The indicators used to measure lecturer competence variables are personality competence, pedagogical competence, professional competence and social competence. The questionnaire used in this research provides five alternative answer choices ranging from very positive to very negative responses. Before conducting research, the questionnaire used was first tested on 30 respondents with the same population but outside the research sample, and the results were declared valid and reliable for use in collecting research data. All statement items are declared valid because the Corrected Item-Total Correlation value > table r value (0.361). All statement items are declared reliable because the Cronbach's Alpha value > the r table value (0.361).

This research uses descriptive statistical analysis techniques using the average formula to present or tabulate data in tabular form. Data analysis in this research was carried out in a sequence of stages, namely 1) data collection through distributing questionnaires, 2) tabulation of research data, 3) data analysis using percentage formulas, and 4) description of research data to draw conclusions on the data obtained.

Results and Discussions

The following is a presentation of research results regarding the competence of learning supervisors obtained from filling out a questionnaire by 50 (fifty) students from 2 (two) universities.

<table>
<thead>
<tr>
<th>No.</th>
<th>Sub Indicator</th>
<th>Number of Items m</th>
<th>Average Score</th>
<th>Level Achievements (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Steady &amp; stable personality</td>
<td>3</td>
<td>2.74</td>
<td>68.67</td>
</tr>
<tr>
<td>2</td>
<td>Mature personality</td>
<td>3</td>
<td>3.18</td>
<td>79.53</td>
</tr>
<tr>
<td>3</td>
<td>Wise &amp; authoritative personality</td>
<td>2</td>
<td>2.92</td>
<td>79.38</td>
</tr>
<tr>
<td>4</td>
<td>A noble moral personality</td>
<td>4</td>
<td>3.17</td>
<td>79.38</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td></td>
<td>3.04</td>
<td>76.08</td>
</tr>
</tbody>
</table>

Based on table 1, it can be seen that the overall level of achievement of lecturers' personality competencies is categorized as good, although there are indicators of solid and stable personality which are categorized as sufficient with an average of 2.74 and an achievement level of 68.67. Data regarding lecturer personality competencies in table 18 shows that lecturer personality in the learning process is very important to pay attention to. Lecturers as leaders in learning and also as role models for students can provide good and correct examples to students. Lecturers must be able to show a steady and stable personality, meaning that lecturers must be able to control their emotions during practical learning. Even though the overall personality competency is categorized as good, there needs to be improvements in a better direction.

A steady and stable personality characterizes the characteristics of individuals who show calm, consistency, and steadfastness in various aspects of their lives. They are able to deal with pressure, maintain emotional balance, and interact with others calmly. To improve these indicators, individuals can develop self-awareness, manage stress with relaxation techniques, learn from life experiences, get social support, and seek professional help if necessary. Through this approach, they can achieve a more stable and stable personality, enabling them to better overcome various challenges in life (Nurkholidah et al., 2021; Thanh & Anh, 2023).

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<tbody>
<tr>
<td>1</td>
<td>Understanding participants educate</td>
<td>2</td>
<td>2.73</td>
<td>68.25</td>
</tr>
<tr>
<td>2</td>
<td>Designing learning</td>
<td>3</td>
<td>3.05</td>
<td>76.25</td>
</tr>
<tr>
<td>3</td>
<td>Carrying out learning</td>
<td>6</td>
<td>2.93</td>
<td>75.80</td>
</tr>
<tr>
<td>4</td>
<td>Designing &amp; carry out evaluation</td>
<td>6</td>
<td>2.75</td>
<td>68.82</td>
</tr>
<tr>
<td>5</td>
<td>Developing participants educate</td>
<td>2</td>
<td>2.61</td>
<td>65.25</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td></td>
<td>2.80</td>
<td>70.86</td>
</tr>
</tbody>
</table>

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Based on table 2, pedagogical competence in general has an overall average score of 2.80 and an achievement level of 70.86%. Based on the overall pedagogical competence is categorized as sufficient, 3 (three) of the 5 (five) indicators that have been implemented need to be further improved in this case understand students, design and carry out evaluations, and develop students' potential. Regarding lecturers' pedagogical competence in the context of practical learning in health universities, there are several aspects that require more attention to improve overall pedagogical competence. In the aspect of understanding students, there is the potential to increase understanding of students' characteristics, by implementing student introduction techniques such as formative assessments or individual discussions (Komalasari & Pardjono, 2016). In the aspect of implementing learning, it is necessary to pay attention to variations in teaching methods to increase student involvement, such as the use of case studies or simulations (Mega, 2022). This aspect of designing & implementing evaluation highlights the need for extra attention to designing evaluation tools that are appropriate to learning objectives (Jumiati, 2022). In terms of developing students, student development strategies outside the classroom can be improved with the active involvement of lecturers in academic guidance or research supervision (Fardinal et al., 2019). The average pedagogical competency score shows that there is still room for improvement. Therefore, supporting training initiatives or workshops that focus on aspects that require attention, as well as encouraging collaboration between lecturers, can be an effective strategy in improving lecturers' pedagogical competence.

Understanding students means having the ability to recognize the individual characteristics, needs and level of development of each student. This includes understanding the learning styles, interests, and challenges that students may face. Designing and implementing evaluations is the process of planning, developing and implementing relevant and objective assessments to measure student achievement in learning. Developing students' potential includes providing appropriate support, motivation and opportunities to help students achieve their best abilities and potential (AK Kulshrestha, 2013; Mulyati, 2016).

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</tr>
</thead>
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<tr>
<td>1</td>
<td>Mastering the substance of science</td>
<td>2</td>
<td>3.01</td>
<td>75.25</td>
</tr>
<tr>
<td>2</td>
<td>Mastering structure &amp; methods</td>
<td>3</td>
<td>2.9</td>
<td>72.43</td>
</tr>
<tr>
<td>3</td>
<td>Mastering critical &amp; technological studies</td>
<td>4</td>
<td>3.21</td>
<td>80.13</td>
</tr>
<tr>
<td>4</td>
<td>Clarity of presentation of material</td>
<td>3</td>
<td>2.81</td>
<td>70.04</td>
</tr>
<tr>
<td>5</td>
<td>Class management</td>
<td>3</td>
<td>2.93</td>
<td>73.33</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td><strong>2.97</strong></td>
<td><strong>74.10</strong></td>
<td></td>
</tr>
</tbody>
</table>

Based on the data in table 3, professional competence is generally categorized as sufficient with an average score of 2.97 and an achievement level of 74.10%, however, when viewed from the 5 (five) indicators in professional competence, 2 (two) of the 5 (five) indicators categorized as good, namely mastering the substance of science and mastering theoretical studies and technology to develop science, while the other 3 (three) indicators are mastering structure & methods, clarity of presentation of material, class management, changes need to be made for the better.

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</thead>
<tbody>
<tr>
<td>1</td>
<td>Communication &amp; social skills</td>
<td>5</td>
<td>2.8</td>
<td>69.8</td>
</tr>
<tr>
<td>2</td>
<td>The ability to be inclusive in action</td>
<td>4</td>
<td>3.1</td>
<td>77.0</td>
</tr>
<tr>
<td>3</td>
<td>Ability to work together &amp; not discriminate</td>
<td>5</td>
<td>2.8</td>
<td>70.5</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td><strong>2.97</strong></td>
<td><strong>72.3</strong></td>
<td></td>
</tr>
</tbody>
</table>

Based on the data in table 4 regarding general social competence, the average score is 2.9 and the achievement level is 72.3%, which is categorized as sufficient with indicators of ability to communicate and socialize as well as indicators of cooperation. However, one of the three indicators with an average score of more than 3 and with an achievement level of 77% is categorized as good. Meanwhile, the sub-indicators of the ability to communicate & socialize as well as the ability to work together & not be discriminatory still need to be improved.
The professional competence of lecturers in the context of practical learning in health universities reveals several aspects that can be improved to increase overall professional competence. First, the aspect of mastering the substance of knowledge shows a fairly good level of achievement. To improve this, efforts can be focused on strengthening further understanding of specific aspects of the substance of knowledge that are relevant to practical learning in the health sector. Second, in the aspect of mastering structures & methods to improve these competencies, lecturers can consider improving teaching methods and material structures so that they are more in line with the dynamic characteristics of practical learning (Eliana, 2018; Nento, 2018; Novita & Yulianti, 2020). In the aspect of clarity of presentation of material, improvements in the presentation of material can be made by clarifying and arranging learning material so that it is easier for students to understand. Lastly, on class management. Improvements can be made by focusing on more effective classroom management strategies to create a conducive learning environment. The implication is that improvements in certain aspects can improve the quality of lecturers' teaching in the context of practical learning in the health sector. Continuous efforts are needed to update knowledge and adopt best practices so
that lecturers can become more effective facilitators of student learning. Apart from that, a collaborative approach between lecturers and the use of more sophisticated technological resources can also support increasing the professional competence of lecturers (Jumardin, 2019; Nento, 2018; Sugiaerti et al., 2019).

In order to improve professional competence, efforts to master structures & methods in an educational context refer to an educator's ability to have a strong understanding of the material being taught and have a structured learning plan with an effective methodology that can be carried out. The clarity of presentation of material reflects the educator's ability to communicate information in a way that is easily understood by students, including appropriate explanations, relevant examples, and efficient use of supporting media. Classroom management includes the ability to create a safe, orderly and productive learning environment, manage student behavior, and maintain discipline in the classroom (Nento, 2018; Novita & Yulianti, 2020; Sinambela, 2017). In order to improve professional competence, educators can deepen their understanding of the material being taught, undertake training or self-development in effective teaching methods, and always prepare a structured learning plan. The clarity of the presentation of material can be improved by preparing a clear learning plan, using simple language, and utilizing a variety of visual aids. Good classroom management requires careful planning, making clear class rules, and the ability to respond wisely to student behavior. With this approach, educators can improve the quality of their teaching, make learning more effective, and create an environment conducive to student growth (Nento, 2018; Novita & Yulianti, 2020; Sinambela, 2017).

In social competence, communication and social skills refer to a person's skills in interacting effectively with other people, including the ability to speak, listen, and adapt in various social situations. The ability to work together and not discriminate reflects the ability to collaborate with people from various backgrounds and treat all individuals fairly and equally regardless of differences in gender, religion, race or other origins (Herawati & Haryono, nd; Novita & Yulianti, 2020).

To improve lecturers' social competence, individuals can start by improving interpersonal communication skills, such as honing their speaking and listening skills well. Additionally, increasing empathy and understanding of different perspectives and cultures is critical in promoting better cooperation and preventing discrimination. In work or educational settings, holding training or workshops on diversity and inclusion can help individuals understand these issues in more depth. Encouraging collaboration between individuals with diverse backgrounds and promoting the values of equality are also important steps. With this approach, individuals can improve their ability to communicate, socialize, work together, and prevent discriminatory behavior, creating a more inclusive and harmonious environment (Nadeem et al., 2011; Shanmugasundaram & Mohamad, 2011; Tynjälä et al., 2016; Wight & Chapparo, 2008).

Although these findings provide valuable insight, this study has several limitations that need to be noted. The use of a student sample as the sole source of data may limit the generalizability of these results. Therefore, further research involving more diverse data sources and more sophisticated research methods may be needed to gain a deeper understanding.

Conclusions

Based on the results of this research, several conclusions can be drawn regarding the competence of teaching supervisors at two universities. First, in terms of personality competency, lecturers have generally demonstrated a good level of achievement with an average score of 76.08. However, it should be noted that the steady and stable personality aspect has a relatively lower level of achievement, reflecting the potential for improvement in emotional control during practical learning. Second, in pedagogical competence, the overall average score was 70.86, indicating that there are opportunities to increase understanding of students, design more effective learning, as well as improvements in student evaluation and development. Third, in terms of professional competence, lecturers have demonstrated good mastery of the substance of science and theoretical studies, but there is still room to improve the clarity of material presentation and class management. Fourth, in social competence, lecturers have demonstrated the ability to communicate, socialize and work together well, although there is room to further increase inclusiveness and non-discriminatory actions.

References


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