

The Influence of Motivation on the Achievement Index of Early Level Dental Health Vocational Program Students During the Pandemic

Pudentiana Rr R. E.¹, Ngatemi², Yusuf K.³, Indrayati F.⁴, Fakhrunnisa⁵

^{1,2,3,4,5}Poltekkes Kemenkes Jakarta I, Jakarta Selatan, Indonesia

Email: roro_okechoi@yahoo.com

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Abstract. Motivation is a process that instigates change within an individual, empowering them to act towards achieving specific goals. Individuals with strong achievement motivation strive to be intelligent and enhance or refine their abilities to fulfill their tasks. This study aims to explore the motivation and achievement index of Level I students majoring in dental nursing at Poltekkes, Ministry of Health, Jakarta I, in 2021. Utilizing a descriptive research design, the population for this study comprised 39 Level I students, all of whom were included in the sample through a total sampling technique. Data were collected via a questionnaire administered through a Google Form. The findings reveal that the majority of students' learning motivation falls within the high category, involving 21 respondents (53.8%). Regarding the student achievement index, the majority, or 35 respondents (89.7%), were categorized within the good learning achievement bracket. The study further indicates that females predominantly exhibit good motivation, accounting for 19 respondents (48.7%). Research on the achievement index based on gender demonstrates that both genders show a high motivation level, with 3 male respondents (7.7%) and 32 female respondents (82.1%) respectively. The study also highlights that students with high learning motivation paired with a good achievement index total of 20 respondents (51.2%), with no students having high motivation alongside a merely sufficient performance index. In conclusion, Level I students of the Department of Dental Nursing at Poltekkes, Ministry of Health Jakarta I, predominantly exhibit high motivation and good learning achievement indexes, with a significant majority being female.

Keywords: *Motivation, Student Achievement Index, Dental Health Vocational Program, Pandemic COVID-19.*

A. INTRODUCTION

Government Regulation Number 32 of 2013 amends Government Regulation Number 19 of 2001 regarding the National Education Standards. It states that the learning process in educational units should be interactive, inspiring, enjoyable, challenging, and motivating for students to actively participate (Zainuddin et al., 2022). It should also provide ample opportunity for initiative, creativity, and independence, in line with each student's talents, interests, and physical and psychological development. Therefore, every educational unit must plan the learning process, implement it, and evaluate it to enhance the efficiency and effectiveness of achieving graduate competencies (Sunubi & Bachtiar, 2022).

The Polytechnic Health Ministry of Health Jakarta I offers vocational education at the higher education level, preparing students for professions requiring specific applied skills. The educational programs at the Health Polytechnic of the Ministry of Health Jakarta I include the Diploma Three (DIII) Study Program. This program aims for its graduates to master skills relevant to routine work tasks and to solve unfamiliar problems independently within their work context. Graduates are also expected to be able to supervise and provide guidance on managerial skills. At a minimum, Diploma Three

Study Program graduates should possess a general understanding of theoretical concepts in their field of knowledge and specific skills (Szabo et al., 2020).

Gestalt psychologists argue that motivation arises from a mismatch during certain life phases. Within these phases, individuals set goals, which can be either positive or negative, aiming to achieve or avoid them. From this perspective, motivation is understood as a process that induces change in an individual, empowering them to act towards achieving specific goals (Livneh, 2022). Individuals with strong achievement motivation strive to enhance their intelligence and improve or repair their ability to complete tasks. Achievement motivation, therefore, can be described as the drive or desire of an individual to attain success, measured against a standard such as the achievements of others or one's previous accomplishments (Hattie et al., 2020).

A study conducted at the beginning of the pandemic analyzed the final exam scores of the odd semester at the Department of Dental Health, Level I, Poltekkes Kemenkes Jakarta I. It found that the highest student GPA (Grade Point Average) was 3.68, while the lowest was 2.47. Each student came from a unique background, with varying interests, goals, motivations, and levels of learning achievement. This diversity underscores the significance of motivation as a key factor in enhancing learning outcomes and academic achievement. By fostering motivation, students are more likely to complete tasks and handle academic burdens effectively, thereby maximizing their chances of success and smooth progress in their studies (Chakraborty & Biswas, 2020).

The research on student motivation and the achievement index at the Department of Dental Health, Poltekkes Kemenkes Jakarta I, during the pandemic, aimed to gather statistical data on student motivation and achievement indexes, with a focus on gender differences.

This research aimed to explore the motivation and achievement index of Level I students majoring in Dental Health, with data collection carried out in May during the pandemic year. The study utilized primary data gathered through a questionnaire administered via Google Forms, which was distributed to Level I students through the WhatsApp application. A total of 39 respondents were instructed to provide thoughtful answers to the questions within a specified time frame to ensure that there was no uniformity in the responses.

B. LITERATURE REVIEW

1. Motivation

Needs are gaps or contradictions experienced between a fact and the motivation within an individual. If an employee's needs are not met, the employee will feel disappointed. Conversely, if the employee's needs can be met, the employee will show joy, which is a manifestation of his satisfaction (Flagstad et al., 2022).

Needs are the main basis on which employees base their behavior. This is because understanding a person's behavior can be determined through the level of their needs. Abraham Maslow explained that the hierarchy of an individual's needs includes:

- a. Physiological needs, are needs in terms of eating, drinking, physical protection, breathing, and sexual. These needs include basic needs to support human life. Thus, physiological needs are needs related to clothing, food, and freedom from pain (Stults-Kolehmainen, 2023).
- b. The need for security is the need to obtain self-protection from all things that can be dangerous, conflict, and the environment. Thus, the need for security and safety is a need to be free from all dangers and threats (Koeppen & Hopkins, 2022).

- c. Togetherness, social, and love needs are the need to find friends, relationships, interaction, and affection. This need is the need to get and be among groups, relate, interact, and love and care for one another (Ock & Hwang, 2023).
- d. The need for self-esteem is the need to be respected and appreciated by other individuals. Thus, this need is a need to gain self-esteem and honor (Clucas et al., 2023).
- e. The need for self-actualization is the need to fulfill oneself optimally by utilizing one's skills, expertise, and potential. This need is a need to demonstrate skills, expertise, and potential. Apart from that, there is the opportunity to express opinions, thoughts, ideas, and criticism of everything around them (Popovych et al., 2022).

Based on this description, it can be concluded that the essence of Maslow's theory is that needs are classified into several hierarchies. The most basic needs are physiological needs, while the highest needs are self-actualization needs. In order, they include Ivancevich, Konopaske, and Matteson (Desmet & Fokkinga, 2020). Dessler explained that in fulfilling behavioral motivation needs, the most basic needs must take priority over fulfilling higher levels. He said, "People are motivated first to satisfy each lower-order need, and then, in sequence, each of the higher-level needs" (Chien et al., 2020).

Herzberg's theory was put forward by Frederick Herzberg. In its application, this theory refers to Maslow's theory. Herzberg carried out his research through an interview process. Each respondent will tell everything they experienced, whether it gave them satisfaction or did not give them satisfaction. Next, the results obtained from the interview were analyzed using content analysis to find out all events that could provide satisfaction or not provide satisfaction (Dixit et al., 2023).

Herzberg explained the content theory or two-factor theory of motivation. These factors include dissatisfaction-satisfaction, hygiene-motivator, and extrinsic-intrinsic.

- a. Motivator factors

This factor can stimulate individuals to carry out their work well and enthusiastically. Aspects included in this group include recognition from other individuals, opportunities for achievement, challenges, and responsibilities. If these aspects can be fulfilled, then a person will feel satisfaction. However, if these aspects are not fulfilled, it can cause a person to feel dissatisfaction (Bai et al., 2020).

- b. Hygiene factors

The presence of this hygiene factor will cause an increase in a person's work motivation, but if this factor is absent it will cause a feeling of dissatisfaction. The aspects included in this factor include wages, methods of supervision, relationships between employees, and working conditions (Zhang et al., 2020). This hygiene factor includes satisfaction and dissatisfaction felt by an employee because this is related to the work environment. As for others, these relate to work policies and administration, control, work conditions, relationships between members, money, position, and security (Thant & Chang, 2021).

2. Achievement

Achievement is a broad and multifaceted concept, stretching across the personal, professional, and social dimensions of human life. In essence, achievement refers to results successfully obtained through effort, skill, or courage, marking a milestone in an individual or group's journey. Achievement can take various forms, from completing

small tasks to achieving large, far-reaching life goals. This concept of achievement is closely intertwined with ideas about progress, growth, and the realization of potential (Alam & Mohanty, 2023). Achievement is not only measured by the final result but also by the process taken to achieve it. This process often involves careful planning, dedication, hard work, and the ability to overcome obstacles. In many cases, achievement also requires adaptation and flexibility to adjust to unforeseen conditions or obstacles. This shows that achievement is not only about achieving goals but also about an individual or group's journey in facing and overcoming challenges (Mora et al., 2020).

Furthermore, accomplishments often require collaboration and support from others. In a professional context, for example, an achievement could be a successful product launch or the completion of a major project, which requires effective teamwork and contributions from various parties. In a personal context, achievement can mean achieving personal goals such as completing education, getting a dream job, or developing new skills, often supported by family, friends, and mentors (Rese et al., 2022). The importance of achievement lies in its broad impact. At the individual level, achievement can increase self-confidence, well-being, and life satisfaction. At a broader level, achievements can contribute to the progress of society, whether through innovation, scientific development, or improved social conditions. Achievement, in all its forms, pushes the boundaries of possibility and expands what humans can achieve (Watson et al., 2021).

However, the concept of achievement also brings challenges, including the pressure to continually achieve or measure oneself against standards that are sometimes unrealistic. In a society that places great emphasis on achievement, individuals can experience stress or exhaustion due to efforts to meet these expectations. Therefore, it is important to understand that achievement must be balanced with other personal needs, such as mental health, interpersonal relationships, and time for recreation (Luthar et al., 2020).

C. METHOD

The descriptive research design selected for this scientific paper offers a systematic approach to collecting, analyzing, and presenting data in a manner that provides a clear snapshot of the population under study. By focusing on the 39 Level I students, this study aims to capture a comprehensive overview of the participants' perspectives or behaviors through the total sampling technique. This method ensures that every individual within the defined population has an equal opportunity to contribute to the research findings, thereby enhancing the reliability and validity of the study. The utilization of a Google form questionnaire as a data collection tool further facilitates the process, allowing for an efficient and effective means of gathering responses. This digital approach not only simplifies the distribution and completion of the questionnaire but also streamlines the analysis of the data, ensuring a robust framework for understanding the nuances of the study group's experiences or opinions. Through this meticulously designed research methodology, the study aspires to yield insightful conclusions that are both reflective of the population's characteristics and contribute to the broader academic discourse.

D. RESULT AND DISCUSSION

1. Motivation Student Level Vocational Dental Student during the Pandemic Period

The results of the research on the motivation of Level I students in the Department of Dental Health at the Polytechnic of the Ministry of Health Jakarta I can be seen as follows:

Table 1. Frequency Distribution and Percentage of Student Motivation

No	Study Motivation	Frequency (f)	Percentage (%)
1	High Motivation	21	54.8%
2	Low Motivation	18	45.2%

Based on data from Table 1, it is evident that the number of students with high motivation amounts to 21 respondents (54.8%), whereas the number of students with low motivation stands at 18 respondents (45.2%).

2. Overview of the Student Achievement Index

The results of the research on the motivation of Level I students in the Department of Dental Nursing at the Polytechnic of the Ministry of Health Jakarta I in 2021 can be seen in the following distribution table of respondent answers:

Table 2. Frequency Distribution and Percentage of Student Performance Index

No	Academic Performance	Frequency (f)	Percentage (%)
1	Very Good	2	5.1%
2	Good	35	89.8%
3	Enough	2	5.1%

Based on data from Table 2.1, it is evident that the student achievement index falls into the following categories: very good with 2 respondents (5.1%), good with 35 respondents (89.8%), and sufficient with 2 respondents (5.1%).

3. Motivation of Level I Students Based on Gender

The results of the research on the motivation of vocational-level students, based on gender, can be seen in the following table that distributes the frequency of respondents' answers:

Table 3. Frequency Distribution and Percentage of Student Motivation Based on Gender

Motivation				
Gender	High	%	Low	%
Male	2	5.1%	3	7.7%
Female	19	48.7%	15	38.5%

Based on data from Table 3, it is shown that the majority of respondents with high motivation are female, totaling 19 respondents (48.7%).

4. Achievement Index of Dental Vocational Students Based on Gender

The results of the study on the performance index of Level I students, based on gender, can be seen in the following frequency distribution table of respondents' answers:

Table 4. Frequency and Percentage Distribution of Student Grade Points Based on Gender

Index Performance						
Gender	Very Good	%	Good	%	Enough	%
Male	1	2.6%	3	7.6%	1	2.6%
Female	1	2.6%	32	82.0%	1	2.6%

Based on data from Table 4, it is shown that the majority of respondents with good achievement indexes are of the female gender, totaling 32 respondents (82.0%), and of the male gender, totaling 3 respondents (7.6%).

5. Motivation and Performance Index of Vocational Dental Students

The results of the research on the motivation and achievement index of Level I students can be seen in the following frequency distribution table of respondents' answers:

Table 5. Frequency and Percentage Distribution of Student Motivation and Performance Index

Index Performance						
Motivation	Very Good	%	Good	%	Enough	%
High	1	2.6%	20	51.2%	0	0%
Low	1	2.6%	15	38.5%	2	5.1%

Based on data from Table 5, it is shown that the majority of respondents have high motivation and a good performance index, totaling 20 respondents (51.2%).

The research, which focused on data collection from Level 1 students in the Department of Dental Health, aimed to provide an overview of motivation and the student achievement index. This study involved a sample of 39 individuals, and the results have been tabulated. The findings can be summarized from this study based on the motivation of dental nursing students, with the majority, 21 respondents (53.8%), falling into the high motivation category. Learning motivation is crucial for achieving good academic performance because it is a significant factor that drives students to study.

This aligns with the findings of Yuliawan's research (2016), which found that a majority of the respondents, 41 in total (58.57%), displayed high learning motivation. This is influenced by the students' aspirations to become professional nurses and to excel in their academic pursuits, alongside other supportive elements that contribute to enhancing student learning motivation. These include the lecturers' teaching abilities, the learning materials, teaching methods that are both interesting and easily understandable, as well as the provision of adequate facilities, infrastructure, and a conducive physical and biological environment. This study, focusing on the performance index of dental health students sampled, revealed that the most common category of academic performance was 'Good', with 35 respondents (89.7%). The study also found that the majority of respondents with good motivation were female, totaling 19 respondents (48.7%). This is consistent with Adilla's research (2016), which showed that the majority of respondents with high motivation were female, numbering 37 respondents (62.7%). Furthermore, this study's findings suggest that the achievement index, based on gender, indicates that both male and female respondents predominantly have high motivation, with 3 male respondents (7.7%) and 32 female respondents (82.1%) respectively. The outcomes of this research highlight that among the Level I students of the Department of Dental Health at Poltekkes Kemenkes Jakarta I, those with high learning motivation and a good achievement index numbered 20 respondents (51.2%). There were no students who had high motivation paired with just an "Enough" performance index.

E. CONCLUSION

The study's results indicate that a significant portion of the students display high learning motivation, with 21 individuals (53.8%) falling into this category. In terms of academic achievement, the majority, consisting of 35 students (89.7%), achieved a rating of good learning performance. It was also found that female students primarily showed strong motivation, with 19 of them (48.7%) contributing to this finding. Further analysis of academic achievement by gender revealed that both males and females exhibited high motivation levels, with 3 male students (7.7%) and 32 female students (82.1%) respectively. The research additionally points out that students who have high motivation combined with a good achievement index amounted to 20 individuals (51.2%), with none of the students having high motivation but only a satisfactory performance index. In summary, the Level I students from the Department of Dental Nursing at Poltekkes, Ministry of Health Jakarta I, generally demonstrate high motivation and good academic achievement, with a notable majority being female.

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