



Analysis of Constraints and Efforts to Accelerate the Completion of Students' Final Project

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Abstract. This study aims to analyze the obstacles encountered by students in the Faculty of Mathematics and Natural Sciences (FMIPA) at Universitas Negeri Makassar (UNM) when completing their final projects and to identify strategies to accelerate this process. The study utilizes a survey descriptive, collecting data through questionnaires with 188 students who are currently in their final studies or have completed them. A descriptive and thematic analysis were employed to identify the obstacles, which involve various factors affecting the time required to complete final project, including internal factors such as academic ability, motivation, and time management skills, and external factors such as university policies, resource availability, and academic support. Furthermore, the study explores efforts that can be taken to expedite the completion of students' final projects, such as mentoring programs, regular consultations, time management skill development, academic support, and other measures to enhance efficiency and effectiveness. The results provide a better understanding of the challenges students face when completing their final project and offer valuable recommendations for the university to improve the efficiency and timeliness of this process. This study is particularly relevant as efficient and timely completion of final project is a primary goal in higher education, ensuring that students successfully finish their programs within a four-year timeframe.

Keywords: Obstacles, Final Projects, Accelerated Completion of Final Projects.

1 Introduction

Higher education plays an important role in shaping individuals who are competent and ready to face the challenges of the world of work [1]. For students, completing their final studies is the last step in completing their study program. However, in reality, there are various obstacles and challenges faced by students in completing their final studies [2]. This can negatively impact the efficiency and effectiveness of the academic process as well as the future of the student's career [3].

The Faculty of Mathematics and Natural Sciences (FMIPA) at Universitas Negeri Makassar (UNM) as one of the teacher education institutions in Indonesia is no exception to this challenge. Students on campus in general often face various obstacles in completing their final studies [4]. These constraints include internal factors, such as academic ability, motivation, and time management skills, as well as external factors, such as university policies and procedures, resource availability, and academic support [2]–[5].

In this context, it is necessary to conduct in-depth research to analyze the constraints faced by FMIPA UNM students in completing their final projects. By understanding these constraints, appropriate and effective measures can be taken to accelerate the completion of students' final projects. The purpose of this study is to analyze the obstacles faced by FMIPA UNM students in completing their final projects. In addition, this study aims to identify efforts that can be made to accelerate the completion of the final project. Thus, this study is expected to contribute to improving the quality of higher education and the success of students in completing their final projects.

2 Methods

This study used a descriptive survey approach [6], chosen to thoroughly analyze the barriers and efforts aimed at accelerating the completion of the final project of FMIPA UNM students. This method facilitated a comprehensive understanding of the contextual factors that influence final project completion.

The study population consisted of FMIPA UNM students who were currently in or had completed their final project. A sample of 188 students was selected using simple random sampling.

Data was collected using a questionnaire designed in Google Forms, featuring both multiple-choice and open-ended questions to gather quantitative and qualitative data. The questionnaire underwent validation by experts in education and education management, requiring minor revisions for usability. Open-ended questions were employed to delve deeply into the challenges faced during final project completion and the efforts made to accelerate it.

Data analyzed using descriptive and thematic approaches as follows [7]. Questionnaire responses were described, coded, and categorized into relevant themes. Conclusions and research findings were drawn from these results. The study was limited by its focus on a single faculty within a single university. This limits the generalizability of the findings.

3 Results and Discussions

According to the data presented in Figure 1, it is evident that 95% of the students have initiated their final projects, while the remaining 5% of students have not yet commenced this critical phase.

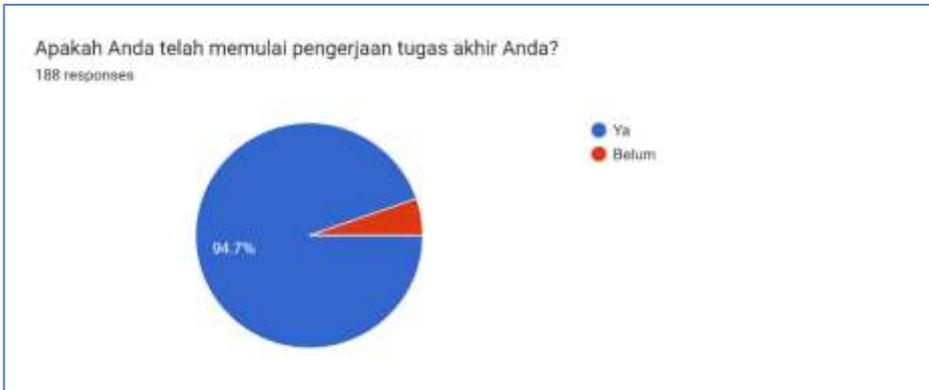


Fig. 1. Distribution of Students Who Have Started Final Project Work.

Furthermore, the researchers sought to discern the underlying reasons for the students who have not initiated their final projects, as elucidated in Table 1.

Table 1. Responses to the Reasons for Students Who Have Not Commenced Their Final Projects.

Study Program	Reason for not commencing yet
Science Education	While researching
Mathematics Education	Actually, I am conducting research in the PKM-RSH competition as well as planning to turn this research into a thesis. It's just that I haven't started making research proposals because I have to focus on PKM first.
Physics	There are still many unfinished courses, KKN and PKL are new programs, compulsory courses still exist.
Mathematics	Still have courses
Mathematics	There are still courses
Mathematics Education	Just finished doing KKN, so I just want to start compiling my final project.
Chemistry	The reason I haven't done the final project yet is because there are still courses that I follow, sir/madam.
Physics Education	Because there are still a few credits that have not passed and leave in semester 7 due to poor health.

According to the data presented in Table 1, it is evident that certain students in the Faculty of Mathematics and Natural Sciences, within various study programs, have not yet commenced their final projects. This delay can be attributed to ongoing courses that remain incomplete or ungraded, as well as their active involvement in activities such as KKN, PKL, and PKM programs.



Fig. 2. Distribution of the main obstacles experienced by students in completing the final project.

Figure 2 reveals that the majority of students encountered personal challenges, primarily related to health and personal issues (48.4%). This was followed by academic impediments, including difficulties in comprehending the material and analyzing data (43.6%), and guidance-related challenges, such as communication issues with supervisors, difficulties in conveying information, and differences in viewpoints (38.3%).

In-depth analysis of the primary obstacles that students encountered while completing their final projects, as determined through thematic analysis, includes the following:

1. Obstacles Related to Students' Busy Schedules (0.5%)

"Students' busy schedules due to involvement in extracurricular activities and various campus commitments."

Students encounter hindrances as a result of their continued engagement in campus activities, such as teaching, KKN and PPL replacement programs, as well as revisiting previously taken courses. Participation in extracurricular activities and other on-campus programs can consume valuable time and energy that should ideally be dedicated to final project completion.

2. Challenges Associated with Mentorship (0.5%)

"Inconsistent mentorship and delayed responses from supervisors."

Students encounter difficulties due to inconsistent mentorship, including scheduling meetings and experiencing delayed feedback from their supervisors. The absence of structured and timely mentorship can impede students' progress in final project completion.

3. Administrative Hurdles (0.5%)

"Administrative complications, such as delayed submission of proposal seminar grades and prolonged research permit processing."

Administrative hindrances encompass issues like the tardy submission of proposal seminar grades, protracted research permit processing, and administrative procedure problems. Administrative challenges can result in setbacks to students' research progress.

4. Health and Personal Challenges (48.4%)

"Health-related constraints and personal issues, such as a lack of motivation and family-related difficulties."

Certain students encounter hindrances stemming from health issues and personal challenges, including illness, diminished motivation, and family-related issues. Health and personal challenges can adversely affect students' concentration and commitment to final project completion.

5. Obstacles Pertaining to Research Materials (43.6%)

"Difficulties in comprehending research materials, alterations in research methodologies, and the intricacy of research differing from conventional practices."

These challenges encompass issues such as a lack of comprehension regarding research materials, modifications in research methodologies, and the intricacies of research that deviate from established norms. This obstacle underscores the necessity of a profound understanding of research materials to expedite final project completion.

6. Challenges Related to Guidance (38.3%)

"Ineffective guidance, including differences in views with the supervisor or a lack of clear guidance."

Students express challenges related to ineffective guidance, such as differences in perspectives with their supervisors or a lack of clear guidance. Ineffective guidance can lead to confusion and difficulties in completing the final project.

7. Technical Constraints (0.5%)

"Technical constraints such as a malfunctioning laptop and limited access to campus resources."

Some students face technical obstacles, such as laptop issues, restricted access to campus resources, or laboratory equipment problems. Technical constraints can slow down students' research progress and final project completion.

8. Consistency-Related Challenges (38.3%)

"Lack of consistency in guidance and feedback from the supervisor."

Certain challenges are linked to the lack of consistency in guidance and feedback from supervisors, resulting in student confusion and difficulties. Consistency in guidance and direction from the supervisor is crucial to ensure a smooth progression toward completing the final project.

9. Facility and Access-Related Constraints (0.5%)

"Lack of facilities and access in the campus environment."

Students encounter constraints related to the insufficiency of facilities in the campus environment and access to necessary research resources. Limited facilities and access can impede the research process and complicate final project completion.

10. Motivational Challenges (48.4%)

"Low motivation or difficulty initiating the final project."

Some students face low motivation or difficulty starting the final project due to fear of rejection or making mistakes. Motivational challenges can slow down research progress and final project completion.

11. Supervisor-Related Challenges (38.3%)

"Difficulty in securing guidance time from busy supervisors or those with differing viewpoints."

Student challenges encompass difficulties in securing guidance time from busy supervisors or those with differing viewpoints. These challenges underscore the importance of effective communication and a balanced understanding between students and supervisors.

12. Time Management Challenges (28.7%)

"Difficulty in managing time effectively and a tendency to procrastinate."

Students encounter difficulties in managing their time effectively, particularly due to a tendency to procrastinate. Poor time management can lead to delays in final project completion.

With an understanding of these primary obstacles, appropriate steps can be taken to help students overcome these challenges and expedite the completion of their final projects.



Fig. 3. Percentage distribution of students who have made efforts to accelerate the completion of the final project.

Figure 3 illustrates that a portion of students (67%) engaged in collaborative efforts with their peers to aid in the completion of their final projects. Furthermore, a significant factor contributing to their success was maintaining regular consultations with their supervisors (60.1%). Subsequently, students reported a decrease in extraneous ac-

tivities unrelated to their final projects (59%) and utilized available resources or facilities (56%) as additional strategies to facilitate the completion of their academic endeavors.

In-depth analysis, based on the transcripts, has identified several efforts to expedite the completion of final projects:

1. Collaboration with Peers (67%)

Many students emphasize collaboration with peers as an effective effort to accelerate final project completion. Discussions with fellow students aid in sharing knowledge, ideas, and resources, providing additional encouragement and motivation. Collaborating with peers allows them to work together on final projects and address potential challenges.

"Collaborating with peers on final projects, as it can trigger progress in thesis work."

"Working with friends who assist me in data analysis."

"This effort is effective in expediting final project completion because I receive many suggestions and input from the supervisor and peers who have similar research."

2. Consultation with Supervisors (60.1%)

Students emphasize the importance of regular consultations with their supervisors. These consultations provide guidance, feedback, and direction in the final project writing process. Supervisors help students understand their research issues and provide positive encouragement.

"With these efforts, it is easier to exchange ideas and the use of digital media or resources is more beneficial to complete the final project."

"Especially when having continuous meetings with the supervisor and receiving guidance and advice on final project completion, it is very helpful for me, who sometimes feels confused about completing my final project."

"Very effective with a tight schedule, consulting with the supervisor using digital tools and exchanging ideas with peers."

"Receiving relevant input for working on the final project."

3. Use of Digital Resources (55.9%)

Some students feel that the use of digital resources, such as software and online resources, greatly aids in their research and final project writing. This includes access to relevant literature and data.

"So far, collaboration with peers and the use of digital resources and software has been quite helpful."

"These efforts are quite helpful in expediting the final project, such as attending workshops that can help increase insights related to thesis writing."

"Very helpful, especially now with easily accessible digital resources, allowing me to obtain references relevant to my research."

4. Good Time Management (45.2%)

Effective scheduling and strict time management are considered effective in avoiding procrastination and ensuring focus on the final project.

"The efforts I have made in recent months have been very helpful in completing my final project, scheduling my work on the final project."

"So far, this development has been encouraging for me in working on my thesis."

"Starting to speed up the completion of the final project and not being too relaxed."

5. Motivation and Enthusiasm (60.1%)

Having high motivation to complete the final project is also an important factor. Self-encouragement and seeking support from friends, family, and supervisors help maintain enthusiasm and motivation.

"This is very effective because face-to-face meetings with the supervisor provide a unique motivation, collaborating with friends, especially those who need to go into the field, requires mutual support."

"Very helpful because with a schedule, it can force oneself to move forward."

"Discussing with fellow students writing the thesis becomes its own motivation in completing the final project."

"These efforts are very effective in helping to expedite the completion of my final project, especially with a tight schedule, which can make me more disciplined and easier to monitor the progress of my final project."

6. Reduction of Extracurricular Activities (59%)

Reducing activities outside of studies helps students focus more on completing their final projects. This involves emphasizing priorities and avoiding distractions that may hinder progress.

"Striving to allocate time for activities on and off-campus to make time for final project guidance."

7. Participation in Training and Workshops (8%)

Some students note that attending training and workshops helps them enhance their understanding of research and the final project writing process.

"These efforts can help me expedite the final project, such as attending workshops that can help increase insights related to thesis writing."

8. Collaboration with Seniors and Other Students (67%)

Interacting and collaborating with seniors who have completed their final projects or peers helps in gaining additional insights and support in the research process.

"Collaborating with peers on final projects, as it can trigger progress in thesis work."

"Working with friends who assist me in data analysis."

"This effort is effective in expediting final project completion because I receive many suggestions and input from the supervisor and peers who have similar research."

9. Discipline in Seeking Consultation (60.1%)

Students who diligently seek consultation with their advisors and peers find it effective in accelerating final project completion.

"With these efforts, it is easier to exchange ideas and the use of digital media or resources is more beneficial to complete the final project."

"Especially when having continuous meetings with the supervisor and receiving guidance and advice on final project completion, it is very helpful for me, who sometimes feels confused about completing my final project."

"Very effective with a tight schedule, consulting with the supervisor using digital tools and exchanging ideas with peers."

"Receiving relevant input for working on the final project."

By understanding the various efforts undertaken by students, patterns emerge indicating that collaboration with peers, consultation with supervisors, the use of digital resources, good time management, and high motivation are key factors in expediting final project completion.

4 Conclusion

In summary, the majority of students encountered personal challenges, primarily related to health and personal issues, followed by academic impediments, and guidance-related challenges. Thematic analysis reveals a range of obstacles, including students' busy schedules, inconsistent mentorship, administrative hurdles, health and personal challenges, research material difficulties, guidance-related issues, technical constraints, consistency-related challenges, facility and access-related constraints, motivational challenges, supervisor-related challenges, and time management challenges. Recognizing these primary hurdles lays the groundwork for targeted interventions to assist students in overcoming obstacles and accelerating the completion of their final projects. The study indicates that students engaged in collaborative efforts with peers to aid in final project completion. Additionally, maintaining regular consultations with supervisors, reducing extraneous activities, and utilizing resources or facilities emerged as strategies contributing to their success. The study identifies various efforts such as collaboration with peers, consultation with supervisors, use of digital resources, effective time management, maintaining high motivation, reduction of extracurricular activities, participation in training and workshops, collaboration with seniors and other students, and discipline in seeking consultation. Recognizing these diverse efforts reveals patterns where collaboration, effective time management, and high motivation stand out as crucial factors in expediting the completion of final projects.

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