Gender, Research Approach, Type of Research, and Completion Period of the Minor Thesis (Skripsi)

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ABSTRACT

The time-span of completing the minor thesis in Indonesian undergraduate programs has been one of the significant issues in higher education accreditation and quality insurance. Therefore, it is important to assess the possible determinants such as gender, research approach, and type of research, which might effect the students’ completion period of minor thesis (Skripsi). This study used quantitative approach and involved 719 university students. The data was collected from the Faculty database from 2014 to 2017 and Mann Whitney U test and Crosstab analysis were applied to analyze the data. The result of this study showed that gender and research approach did not significantly contribute to the students’ minor thesis completion period. Additionally, students who chose independent research, as their type of research, were able to finish their Skripsi faster than those who conducted joint research.

Key words: Completion Period, Gender, Minor Thesis, Research, Skripsi, Thesis, Type of Research

INTRODUCTION

Students who are studying a Bachelor’s Degree in Indonesia are required to complete and submit a minor thesis (Skripsi) in partial fulfillment of the academic requirements. Students work on the Skripsi in their final semester under the supervision of their lecturers. Currently, minor thesis is considered an indicator of the students’ competence in conducting research on a chosen topic in field of knowledge. The students are considered to have gained the skill of conducting research if they can respond to various phenomena around them and present the response as scientific work that is expected to be useful to the society (Gunawati, Hartati, & Listiara, 2006; Susanti, 2015). The process of writing the minor thesis or undergraduate research provides students the opportunities to learn independently, apply their knowledge in research, and develop communication and problem-solving skills. This process trains students to think scientifically because the coursework teaches the students to be competent practitioners but does not teach them to be scientists (Gunawati et al., 2006; Seymour, Hunter, Laursen, & Deantoni, 2004).

Undergraduate research or Skripsi potentially benefits the development of undergraduate students’ competence in several directions (Gunawati et al., 2006; Seymour et al., 2004). Nevertheless, minor thesis is often regarded as a burden and raises fears among students. Based on the preliminary data collected by the researchers through interviews with 25 students who were undertaking or had undertaken minor thesis in several different universities on the island of Java shows that 20 students were feeling anxious at the thought that in the next semester they would enrol in Skripsi. Nine of the subjects said they did not encounter any significant obstacles when writing Skripsi, while the other 16 said they were experiencing several constraints that made finishing the minor thesis difficult.

Generally, the problems experienced by students in writing minor thesis are due to the lack of writing ability, inadequate academic ability, lack of interest in conducting research, the difficulty in proposing ideas for research, the difficulty in finding relevant literature, limited funds, anxiety when approaching the supervisor, lack of time to write minor thesis, poor time management, and feeling tired and lazy (Etika & Hasibuan, 2016; Gunawati et al., 2006; Hariyadi, Anto, & Sari, 2017; Mutakien, 2012; Pasaribu & Syofii, 2016; Rismen, 2015). These barriers triggered students’ anxiety and fear and caused them stress, loss of motivation, and resulted in procrastination in completing their research (Etika & Hasibuan, 2016; Mutakien, 2012).

There are other additional factors that could delay the completion of students’ research such as job, family, lack of training; personal and academic problems with supervisor, the administration and complex bureaucracy; gender, age, ethnicity, social background, lack of funds, lack of discipline, inadequate knowledge of the field and the type of research, difficulties in consulting with the supervisor and...
progress review, academic culture, low self-esteem and knowledge, dislike for the writing process, difficulty in concentrating, and fear of the evaluation of their work (Ngozi & Kayode, 2013).

The above problems cause delays for students in completing their minor thesis. Delay in completion of minor thesis is not only detrimental to the students in terms of energy, time, and material but it also lowers the standing of the courses/school and university. Accreditation is done regularly to assess the quality of achievement of a study program or course (Badan Akreditasi Nasional Perguruan Tinggi [BAN-PT], 2017). Two of the elements assessed through the process of accreditation are the percentage of the students who graduate on-time and the average time of study period (Badan Akreditasi Nasional Perguruan Tinggi [BAN-PT], 2011). The larger the number of students who delay the completion of their minor thesis, the larger the number of students whose graduation is delayed. This has an adverse effect of the assessed credibility of the study program or course.

Data for three years till mid-2013 in Faculty X of a Private University showed that the average completion period of students’ minor thesis was 12.1 months. This, of course, is much longer than a period of about six months that has been determined as adequate for completing the minor thesis based on the curriculum in that Faculty. According to the previous accreditation visit report in 2013 from the BAN-PT’s assessors, the completion period of the minor thesis is one of the assessment indicators and, in this case, the score for this item was low.

There are several ways to help students overcome the obstacles they face and complete their research on time. For example, the students could be given writing lessons from the beginning of formal education [that is from elementary school], arranging a writing skill training programme, and encouraging effective communication with and supervision by the lecturer (Gunawati et al., 2006; Ngozi & Kayode, 2013). However, to address the problem of delayed completion of minor thesis based on the curriculum in that Faculty, the faculty undertook several policy changes. Starting in early 2014, students have begun to write up a proposal when they enrol in their prerequisite subject (the subject that the students should take before undertaking their minor thesis work). The subsequent research they will undertake for their Skripsi project will be on the proposal they submit. Faculty X also provides tutorial support so that the students would be able to graduate soon. Once they felt exhausted with minor thesis, they would take a rest for a couple of days before resuming their minor thesis work. Those data show that gender has a possible effect on individuals’ study. Goni, Wali, Ali, and Bularafa (2015) stressed that gender does not influence one’s academic performance. However, previous research found that women procrastinate more often than men (Rodarte-Luna & Sherry, 2008), on the contrary, another study proves that men postpone works more than women (Prohaska, Morrill, Atiles, & Perez, 2000).

Furthermore, the faculty’s database notes that the preferable research approach used by the students during the selected evaluation timeframe (three years up to mid-2016) is the quantitative research. This trend might contribute to the positive result of the changes aforementioned. It is supported by findings from Castellan (2010) and Choy’s (2014) research that the time required to finish the research can also be influenced by the research approach –quantitative research takes relatively less time than qualitative research. During that evaluation time, the data also show that most of the students undertook individual research despite the fact the faculty had offered joint research as an option to help the students deal with the Skripsi obstacles, for instance, finding ideas, consulting about the problems, improving communication skills, and enhancing their confidence in conducting research (Elman, Kapiszewski, & Kirilova, 2014; Hadi & Muhammad, 2017; Sunarty, 2016).

Therefore, further evaluation is needed concerning those factors such as gender, research approach, and type of research, which have been investigated in previous studies (Castellan, 2010; Choy, 2014; Elman et al., 2014; Goni et al., 2015; Ngozi & Kayode, 2013; Prohaska et al., 2000; Rodarte-Luna & Sherry, 2008) as the possible factors that cause delayed completion of Skripsi by students.

**LITERATURE REVIEW**

The literature review in this study covers the completion period of the minor thesis; gender; gender and completion period; research approach and completion period; and type of research and completion period.

**The Completion Period of the Minor Thesis**

The word 'period' in the Kamus Besar Bahasa Indonesia [KBBI] (2019) means time, while the word 'completion'
from the same source is interpreted as completing or finishing task. *Skripsi* itself is one of the compulsory subjects that must be undertaken by students as one of the graduation requirements to obtain certain academic degree (Aslinawati & Mintarti, 2017). Wulan and Abdullah (2014) described *Skripsi* as one of the scientific papers compiled by students based on the results of research that fulfills scientific requirements and is used as one of the requirements to obtain a bachelor’s degree. *Skripsi* is written through the planning, implementation and research results. The completion of the thesis means the time required by students to complete the final project in the form of scientific papers to get a bachelor’s degree.

**Gender**

Gender divides humans into 2 groups based on their reproductive function, which is the basis for recognizing humans and social organizations, into men and women (Eagly, Nater, Miller, Kaufmann, & Sczesny, 2019).

**Research Approach**

The research approach is the planning and procedure for research that include steps from general assumptions to detailed methods of data collection, analysis and interpretation; consists of qualitative, quantitative, and mixed-methods (Creswell, 2014).

**Gender and Completion Period**

Through their studies, Fattah, Ratna, and Ratnasari (2011) found that men were more timely in finishing assignments. Reed, Enders, Lindor, McClees, and Lindor (2011) added that more men achieved higher education (professors) than women. Gustaven and Margareth’s (2019) findings prove otherwise, in which women have higher academic achievement than men. Other studies also confirm that women have better academic resilience, while men reported to act more misbehavior and have academic results more sensitive to changes in social-economic status than women (Marcenaro–Gutierrez, Lopez–Agudo, & Ropero-Garcia, 2018; Nyambura Mwangi & Ireri, 2017).

**Research Approach with Completion Period**

Creswell (2014) explained the basic matter to identify the differences in each research approach through the assumptions that underlie the research, the type of research strategy used, and the specific methods for strategy implementation. According to the historical records on the evolution of the use of research approaches in social science research, from the late 19th to mid-20th century quantitative approaches predominated, whereas after the 20th century, interest in qualitative approaches increased. Each approach brings advantages. The quantitative approach has procedures and rules that are generally strict, some researchers choose this approach possibly because it is more comfortable with a more systematic procedure. Qualitative approaches, on the other hand, provide space to innovate within a research design framework.

**Type of Research with Completion Period**

There are many advantages for students involved in the research. Research experience allows students to better understand the workings of publishers, learn how to balance team work and individual work, determine areas of interest, and draw early career steps as a researcher. The indirect advantage which evokes difficulty to teach in the S1 curriculum is to balance independence and collaboration. Researchers are often required to work in teams; they must learn how to balance the joint efforts made and the ability to achieve personal goals (Madan & Teitge, 2013). Harney (2017) stated that collaborative research for undergraduate researchers needs to be performed before conducting independent research to develop basic research skills. Participants in collaborative research projects focus on finding research abilities and are guided to practice the application of these abilities in real-life situations.

**Objective and Hypothesis**

This study aims to test whether gender, research approach, and type of research contribute significantly to the completion of the student’s thesis. The hypothesis proposed in this research is:

- Genders, research approaches, and types of research contribute to significant differences in the students’ completion period of their mini theses.

**METHOD**

This section explains the variables that are examined in this research, and the methods of data collection, subjects, and data analysis.

**Variables**

The completion period of the minor thesis (*Skripsi*) is the period that the students need to finish their minor theses. It is counted from the date a student passes the minor thesis examination back to the date of registration for the minor thesis subject. The raw score then is converted to a *t*-score before being analysed. Gender of the subjects, male or female was considered to determine whether males and females needed different timeframes to complete their minor thesis. Research approach was classified into qualitative and quantitative approaches that the students used in their research method. Types of research included the independent research and joint research. The criteria of type of research were determined by the process of the students writing their minor thesis. The students who developed and proposed their own research idea and worked individually on their research were categorized as independent researchers though their work was done under supervision of their lecturer. The other category was joint research. It had two conditions. Condition 1 was when the student had a partner (another student) in developing the research idea and conducting the research. They as partners shared the topic of research but their
papers had different titles; condition 2 was when a student did research based on the supervisor’s research interest. In other words, the student’s minor thesis was a part of the supervisor’s current research. This current study did not separate these two conditions into different groups in data analysis. These two conditions were applied in joint research groups.

**Data Collection**

This study conducted in Faculty X of a Private University in Indonesia. The data related to the completion period of minor thesis, gender, research approach, and type of research were gathered from the online database of Faculty X. Data from the time the students registered for minor thesis subjects until the students took and passed their viva.

**Subjects**

The participants in this study were selected from the timeframe since Faculty X implemented policy changes. The reason for this choice of the timeframe was that the researchers aimed at evaluating the current policy to help FacultyX in making further policy changes to further reduce the instances of delayed thesis submissions.

The data was collected for all 744 students who passed their viva between 1st of August 2013 and 22nd of May 2017. Of these 744 students, the data of 25 was incomplete and lacked the information about their type of research. These 25 were eliminated from the data, which left a sample consisting of 719 students.

**Data Analysis**

Since the subjects involved were all students in the selected timeframe (non-random sampling was applied), the assumption tests such as normality and homogeneity were not conducted before the data analysis. Therefore, the data was subjected to non-parametric statistical analysis. The hypothesis was tested using Mann Whitney U test to compare the completion period of the minor thesis (Skripsi) based on the students’ gender, research approach, and type of research. Chi-Square Test was conducted to test the association of the gender, research approach, and type of research with the completion period of the minor thesis (Skripsi).

**RESULTS**

The results accommodate the hypothesis tests which examined the comparison test. Additionally, the Crosstab analysis was applied to describe more detailed information about the distribution of the subjects.

**Comparison Tests**

The completion period of Skripsi based on gender, research approach, and type of research is examined using Mann-Whitney analysis in order to test the differences in the completion period of Skripsi for students in each category (gender, research approach, and type of research) in Table 1.

Based on the analysed data of the comparison test, it is seen that there was no significant difference between males and females in completion periods of Skripsi. The average completion period of Skripsi (seen from the mean of t-score) for female students (351.38) was shorter than for male students (382.69). This indicates that female students needed less times to complete their Skripsi. However, statistically the difference is not significant. Furthermore, there was also no significant difference between students who chose the quantitative approach or the qualitative approach in their research. The number of students who took each of these approaches shows that quantitative research is preferred by more students (n = 544) than the qualitative research (n = 175).

Another interesting finding was that the completion period of the Skripsi showed a significant difference between the students who conducted independent research and those who did joint research. The data analysis showed that independent research was chosen more frequently by the students of Faculty X (559 out of 719). Students who did joint research took longer to complete their Skripsi (mean of t-score 350.93) as compared with the students who undertook independent research (391.68). Therefore, it can be concluded that the completion period of the Skripsi for students who did independent research tends to be shorter than that for the students who did joint research and the difference was statistically significant.

**Crosstabs**

Testing data with Crosstabs analysis (Table 2) was used to describe more detailed information about the distribution of the subjects in each category variable and students’ Skripsi completion period (divided into two groups: less than or equal to 6 months; and more than 6 months).

Based on the data presented in Table 2, it can be seen that the majority of students who graduated from the mid-2013 to May 2017 were female because the students who enrolled in this faculty were mostly female. The research approach

<table>
<thead>
<tr>
<th>Category</th>
<th>Group</th>
<th>n</th>
<th>Mean Rank</th>
<th>p</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>198</td>
<td>382.69</td>
<td>0.069</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>521</td>
<td>351.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Approach</td>
<td>Qualitative</td>
<td>175</td>
<td>365.51</td>
<td>0.685</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Quantitative</td>
<td>544</td>
<td>358.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Research</td>
<td>Independent</td>
<td>559</td>
<td>350.93</td>
<td>0.028</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Joint</td>
<td>160</td>
<td>391.68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
chosen by most students was quantitative, and the type of research conducted by majority of the students as independent research. The number of students who graduated with a range of less than or equal to 6 months or over 6 months has the same average of 50% for gender, research approach, and type of research. Interestingly, on the basis of gender classification, most of the males and females graduated in less than or equal to 6 months. This trend was similar to the research approach variable. Most of the students who adopted either qualitative or quantitative research approach finished their Skripsi in less than or equal to 6 months. However, type of research provided different trends. Most students (55%) who did joint research completed their Skripsi in over 6 months while of the students who did independent research 57% finished their Skripsi in less than or equal to 6 months.

**DISCUSSION**

A study by Fattah, Ratna, and Ratnasari (2011) stated that in completion of the final task at the Institute of Technology Sepuluh November (ITS) the Master’s students who were able to finish their study on time were male. Holman, Stuart-Fox, and Hauser (2018) added that although now the gender gap is getting smaller, men dominate in science, medicine and technology research as evidenced by the greater number of male academic publication authors. This is in contrast with Gustavsen and Margareth’s study (2019) who found that women have higher academic achievement than men. In addition, women show higher scores in reading and writing (Reilly, Neumann, & Andrews, 2019). However, the result of this current research shows no significant difference in the final outcome for the task (in this current research the task relates to Skripsi) completion period based on gender ($p = .069$). This finding is supported by Goni et al. (2015) who stressed that sex is not so influential in one’s study. Another study added that both men and women have the same potential and the same way of solving academic problems (Santacana, Kirchner, Abad, & Amador, 2012). Yet the characteristics of critical thinking in men and women are different where critical thinking is closely related to academic ability (such as writing, oral presentation, and the ability to solve practical problems). Women tend to be better at interpreting sentences, reading between paragraphs, understanding how to make and deliver arguments clearly, describing the grammar, and finding inconsistency in arguments. While men tend to focus more on activities, criticize without having to feel guilty, identify something based on reasoning, see things from different perspectives (Aliakbari & Sadeghdaghighi, 1999).

Furthermore, this current study also did not find a significant difference in the completion period of the Skripsi based on research approaches used by the students ($p = .685$). The results of this study contradicts Castellan (2010) and Choy (2014) who stated that the research method chosen may influence the length of research and qualitative research tends to take relatively longer time than quantitative research. However, the above finding of the two experts is not proved in this current study regarding the period of completion of the Skripsi by qualitative and quantitative approaches. The completion period of less than or equal to six months for the Skripsi, was needed by 54% of the students whether they took the qualitative or the quantitative approach. Harwell (2011) and Creswell (2010) stated that the research approach is chosen by considering the research objectives, the nature of the data that would be collected from the participants, and its analysis and interpretation that would later reveal the answers of the matter under study. Different research approaches, quantitative-, qualitative- and mixed- are used for different purposes and have their respective advantages and disadvantages, but can maximize the quality of research if they are used appropriately. It is cannot be denied that the selection of appropriate research methods, not only can simplify the process of data collection but also the entire process of research till the obtention of results (Harwell, 2011). Each research method certainly has advantages and disadvantages. In general, the qualitative approach helps to explain what needs to be learned when there are no theories on the topic or the variables are unknown, while theories are used to generalize quantitative data (Daniel, 2016). Qualitative approach is used to explore and understand a phenomenon in depth, but quantitative data is very limited because of the small size of samples. While quantitative research involves large samples and relatively shorter period of data collection, it cannot delve deep in that data (Rahman, 2017).

Furthermore, there were also significant differences in the completion of the Skripsi if differentiated by the type of research ($p = .028$). The average time of the Skripsi’s

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**Table 2. The distribution of subjects categorized by gender, research approach, type of research, and completion period of the Skripsi**

<table>
<thead>
<tr>
<th>Category</th>
<th>The completion period</th>
<th>≤ 6 months</th>
<th>&gt; 6 months</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>103 (52%)</td>
<td>95 (48%)</td>
<td>198 (27.5%)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>286 (55%)</td>
<td>235 (45%)</td>
<td>521 (72.5%)</td>
</tr>
<tr>
<td>Research Approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative</td>
<td></td>
<td>94 (54%)</td>
<td>81 (46%)</td>
<td>175 (24.3%)</td>
</tr>
<tr>
<td>Qualitative</td>
<td></td>
<td>295 (54%)</td>
<td>249 (46%)</td>
<td>544 (75.7%)</td>
</tr>
<tr>
<td>Type of Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint</td>
<td></td>
<td>72 (45%)</td>
<td>88 (55%)</td>
<td>160 (22.3%)</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td>317 (57%)</td>
<td>242 (43%)</td>
<td>559 (77.7%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>389 (54.1%)</td>
<td>330 (45.9%)</td>
<td>719</td>
</tr>
</tbody>
</table>
completion for students who conducted independent research was shorter than those who did joint research. This finding is different from the study by Mariani, Buckley, Reidy, and Witmer (2013) who mentioned that student engagement and student-faculty collaboration need to be promoted in undergraduate research since it brings benefits to both. Moreover, Elman, Kapiszewski, and Kirilova (2014) pointed out that collaborative research can empower the supervision relations. The students learn teamwork, discipline, making compromises, and carrying out social inquiry. They also gain more knowledge in their area of study. Specifically, Elman et al. (2014) stressed that being part of the faculty research is promotes students’ interest in conducting research. 

The previous study mentioned that the student’s perception of the supervision process contributed to the completion period of the Skripsi. There are about 65% of students who do not complete the minor thesis on time due to various factors one of which is the involvement of supervisors (Kozanitis, Desbiens, & Chouinard, 2007; Zulkifli, 2012). Hadi and Muhammad (2017) found that the better the quality of supervision the more trustworthy and the more confident the students were in conducting research. Supervisors are expected to discuss theoretical aspects of research, research methods and the use of certain techniques, and monitor and evaluate student work, provide constructive criticism, and bind the interpretations of research outcomes. Sunarty (2016) added that based on preliminary data in the student’s minor thesis at Universitas Negeri Makasar, it was found that one of the inhibiting factors for the final project completion process was related to the need to attend the supervisor’s lectures and the students’ lack of both communication and writing skills. Sunarty (2016) added that if the phenomenon of unskilled students is not immediately addressed properly, it will cause the extension of completion period of students’ studies and may even lead to their dropping out of lectures.

Nevertheless, the current study is supported by Hin (2013) and Kyvik and Reynert (2017) who stated that although it takes relatively longer, joint research is considered to have better quality output as compared to research that is conducted individually because it is usually more creative and novel, has higher data quality, and follows more sophisticated research methods. Their argument may explain why the subjects in this current study who did joint research needed more time to finish their research than those who did independent research.

CONCLUSION

The students’ choice of the type of research contributes significantly to the time that the students needed to finish their Skripsi. Moreover, the students who did independent research (type of research) needed shorter time to finish their Skripsi. Therefore, there is a need for an evaluation of the process of joint research in this faculty since previous studies prove that joint research brings many more advantages for undergraduate students, especially in finishing their research but it was not found in this study.

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REFERENCES


