



MEASURING ANXIETY TOWARDS RESEARCH AND THESIS WRITING AMONG ISLAMIC COLLEGE STUDENTS: A MIXED-METHODS STUDY

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ABSTRACT

It is unquestionable that research and thesis writing anxiety has negative impacts on academic success. Such academic anxiety needs a serious concern by measuring it as a beginning step to determine appropriate research and thesis writing strategies. Therefore, this study aimed at measuring the types and levels concerning anxiety towards research and undergraduate thesis writing among students in an Islamic college. Through a mixed-methods design, 450 students from various majors at a state-owned college were asked to complete a questionnaire and 10 students were involved in a semi-structured interview. The quantitative data were analyzed by determining means, SD, and frequency levels and a content analysis was applied to analyze qualitative data. The results revealed perceived utility and competence as the most common type experienced by students during a field research and thesis writing. On the other hand, the students are able to work with library-related practice as it has the lowest mean score. Regarding qualitative result, it is stated that there are problem that emerge during the field research and thesis writing, including fear of writing, library, statistics, and field research. Fortunately, the students are able to cope with the problems by undertaking several related strategies, including conducting regular practice, comprehending online resources, and utilizing online application. In short, it is implied that such academic anxiety can be avoided by the students and it is recommended that future research has to focus on determining research and thesis writing strategies.

Introduction

Research in higher education context has been considered as an inseparable task among teaching and community service. The importance of research is supposed to be in accordance with the development and quality of a higher education institution (Delaney et al., 2020; Heron, Gravett, & Yakovchuk, 2021). Higher education students are targeted to undertake research consisting of field research implementation and final thesis writing as compulsory tasks to meet

graduation requirements. The students are expected to accomplish these two tasks prior to their graduation. Failing to meet requirement will result in graduation delay. In this case, the students have to perform hard work to complete their field research and thesis writing which configure their seriousness toward academic tasks (Albertyn & Bennett, 2021).

In academic context, senior students are engaged in taking a final thesis course which allows them to begin writing a thesis proposal, undertaking field research, and finishing final chapters of their thesis (Heron, et al., 2021). Such inseparable parts of thesis activities have been accumulated as challenging matters for some students. However, other senior students believe that the course is burdening that they need to be acknowledgeable with comprehensive understandings of course competencies such as writing, statistics, language, and field research skills (Fitzpatrick et al., 2021). As different students have different abilities, it is noticed that the students with lower ability in undertaking research matters are involved in research anxiety. The anxiety toward research reduces the senior students' motivation and positive attitudes toward research as they need to be indulged in a series of research activities (Chan, Mazzucchelli, & Rees, 2021).

The problems with research anxiety are caused by lower abilities in accomplishing thesis writing, undertaking statistics, doing research, and understanding grammatical cohesion throughout the research course. As for writing skill, it is stated that writing is one of the most burdening problems in the research course (Chan, Wong, & Luo, 2021). Writing is the basic competence that needs to be accommodated by the senior students during final thesis writing. This skill encompasses proposal writing, statistical analysis, interview guide, and final chapter presentation. In writing a thesis, several basic elements such as cohesion, coherence, diction, and structures should be integrated within texts (Huang, 2021).

In a broader context, anxiety toward the use of library has been a problem during research course. The senior students need to work with either offline library such as on-site library or online library such as campus repository of other online sources. Some related skills are needed to be encouraged when the students are indulged in library matters such as browsing, selecting, scanning, skimming, citing and summarizing (Shelmerdine, 2018; Sinnasamy & Karim, 2016; Qadir et al., 2021). As the impact of students' anxiety toward library use, it is noted that they are not able to set up the concepts of theoretical basis of their research topics. In this case, technical element of writing might be missing when the students fail to perform their ability in utilizing library for their thesis writing. This problem leads to anxiety in browsing

sources, reading materials, citing references, and summarizing contents which are important parts of thesis writing (Jan, Anwar, & Warraich, 2020; Olave-Encina et al., 2021).

The research and writing problems have also attracted researchers to discuss various terms of research anxiety through several previous studies. First, Sabti et al., (2019) conducted a study which attempted to look at how students of English as a foreign language in Iraq varied in their levels of writing anxiety, writing self-efficacy, and writing achievement motivation. The aforementioned associations were investigated using a quantitative strategy, specifically the correlational design. One hundred undergraduates from two public universities in Iraq who were majoring in English were used as the study's sample. Information was gathered using a descriptive writing exercise and three surveys (the Second Language Writing Anxiety Inventory [SLWAI], Writer Self-Perception Scale [WSPS], and Achievement Goal Questionnaire [AGQ]). According to the results of this research, students who reported higher levels of writing anxiety also had lower levels of writing performance, whereas those who reported higher levels of writing self-efficacy and writing accomplishment motivation had higher levels of both. This study also found that there was a negative relationship between writing self-efficacy and writing anxiety, and a similar negative relationship between writing anxiety and writing success motivation, whereas there was a positive relationship between writing self-efficacy and writing achievement motivation. The findings of this study imply that these considerations should be incorporated into EFL writing education in order to improve both the quality of EFL writing instruction and the writing skills of EFL students.

However, little study has been focused on research anxiety toward field research and thesis writing conducted through a mixed-methods design. In this current study, the main focus is to explore senior students' anxiety during field research and final thesis writing through the adoption of a mixed-methods design in Islamic higher education context. This study is different from related previous ones in terms of topic, respondent and informants, and context. As for the topic, it attempts to investigate both students' anxiety in undertaking field research and writing their thesis. Both tasks are inseparable and integrated during final level as the students have to write a proposal, undertake a research, analyze data, and accomplish final chapters of their thesis. This current study is investigated under the following questions, including (1) What are the types and levels of anxiety toward field research and thesis writing of the senior students in a rural Islamic college?; (2) What problems do the students face during field research and thesis writing? and, (3) How do the students cope with the anxiety toward during field research and thesis writing?

Method

Design of the Study

This present study is undertaken through an explanatory sequential mixed-methods study which allows the researchers to employ quantitative measurement followed by a qualitative approach to support the quantitative data (Ivankova, Creswell, & Stick, 2006). Moreover, to better understand the focus of the study, detailed interpretation, identification, and clarification quantitative data as the main research design are generated from the qualitative approach and data analysis (Edmonds & Kennedy, 2017).

Research Context

In this study, purposive sampling method is used to determine the participants who are expected to be the respondents and the informants during the mixed-methods study. The respondents consist of 450 students from several majors (i.e Islamic Education, English, Math, Biology, Counseling and Guidance, Arabic, Educational Management departments) in a state-owned Islamic college. As for the informants during interviews, 10 students were randomly selected. All of the students are of semester eight, ten, and twelve.

Findings

In this session, the researchers present the results of two interrelated research questions focusing on both quantitative and qualitative data.

Results of Quantitative Questions

Types and levels of anxiety toward field research and thesis writing

There are seven sub-indicators of research and thesis writing anxiety, namely library anxiety, writing anxiety, statistics anxiety, field research anxiety, research language anxiety, research course anxiety, and perceived utility and competence.

a) Library Anxiety

The following table presents descriptive statistics of library anxiety. There are two statements (i.e No 3 and 14) for library anxiety.

Table 1. Percentages of library anxiety

No	Statements	Response (%)				
		SA	A	N	D	SD
3	I am looking forward to conducting research in the library.	-	-	-	88.7	11.3
14	I am confident in using the library to undertake research projects.	-	-	-	11.6	88.4

The above table showed that the students are unwilling to conduct their research and thesis writing in the library (88.7%). Many of them (88.4%) do not feel confident to use the library when they work with their research and thesis writing.

b) Writing Anxiety

The following table presents descriptive statistics of writing anxiety. There are five statements (i.e No 1, 9, 13, 20, and 26) for writing anxiety.

Table 2. Percentages of writing anxiety

No	Statements	Response (%)				
		SA	A	N	D	SD
1	I am a competent writer.	-	-	-	9.8	90.2
9	Writing a research proposal scares me.	-	-	-	10.7	89.3
13	I love to write papers.	-	-	2.4	92.6	5
20	I have a good command of the English language.	-	-	3.9	94.1	2.1
26	Writing a research proposal is too difficult for me.	-	3.6	89.9	6.5	-

The table above revealed that the students do not consider themselves as thesis writers with higher competence (90.2%). Regarding proposal writing, the students feel worried (89.3%) when they are asked to write and submit a final proposal for their research. 89.9% students believe that they are not able to write a final proposal. In line with that, they are afraid of showing their writing skills to write many kinds of paper writing (92.6%). That might be caused by their lack of sufficient competence in using good English for their thesis writing (94.1%).

c) Statistics Anxiety

The following table presents descriptive statistics of statistics anxiety. There are four statements (i.e No 2, 15, 22, and 28) for statistics anxiety.

Table 3. Percentages of statistics anxiety

No	Statements	Response (%)				
		SA	A	N	D	SD
2	Knowledge of computers is an essential part of research.	91.4	7.4	1.2	-	-
15	Statistics is the most important component of research.	-	3.3	83.7	13.1	-
22	A good researcher must be competent at statistics.	6.5	92.9	.6	-	-
28	Since I do not like statistics, I do/will not enjoy research methods.	-	-	-	93.5	6.5

As for statistics anxiety, the previous table showed that the students believe in the importance of computer and its application to help them deal with their thesis writing (91.4%). Interestingly, they feel doubt about the importance of statistics for their research and thesis writing (83.7%) even though they are aware that statistics needs to be mastered by every researcher as an important part of their thesis accomplishment (92.9%). Moreover, 93.5%

consider that those who do not enjoy working with statistical analysis are not compatible with research method they proposed.

d) Field Research Anxiety

The following table presents descriptive statistics of field research anxiety. There are five statements (i.e No 4, 7, 21, 30, and 33) for field research anxiety.

Table 4. Percentages of field research anxiety

No	Statements	Response (%)				
		SA	A	N	D	SD
4	I have many research problems I would like to research.	-	-	-	92.3	7.7
7	Research is a challenging and stimulating discipline.	89.9	4.2	5.9	-	-
21	Conducting research takes up too much time.	2.1	5.6	92.3	-	-
30	I would like to get a research article published in a journal	7.7	89.9	2.4	-	-
33	I enjoy undertaking research.	-	-	.6	93.8	5.6

Regarding field research, the students reveal that they do not have many problems to be researched (92.3%). In fact, they believe that conducting research in the field is challenging and stimulating due to various reasons (89.9%). 92.3% students are in the middle of decision towards time allocation for doing a field research. Interestingly, the students (89.9%) intend to write an article of their thesis topic and have it published in a journal. Another problem appears when the students (93.8%) state that they do not enjoy conducting research in the field.

e) Research Language Anxiety

The following table presents descriptive statistics of research language anxiety. There are seven statements (i.e No 5, 18, 25, 31, 36, 44, and 39) for research language anxiety.

Table 5. Percentages of research language anxiety

No	Statements	Response (%)				
		SA	A	N	D	SD
5	There is too much material to be learned in research methods.	91.4	6.2	2.4	-	-
18	The language used in research methods is confusing.	10.4	84.3	5.3	-	-
25	Researchers intimidate me.	-	4.2	95	.9	-
31	Taking a course in research methods is similar to learning another language.	6.8	92	1.2	-	-
36	Research methods textbooks are difficult to understand.	93.5	5.6	.9	-	-
39	I like to read research articles in my field.	5.6	94.1	.3	-	-
44	Research method is the most difficult course in my program.	4.7	95.3	-	-	-

The above table revealed that 91.4% students believe in the higher number of targeted materials during a research course. In line with that, 84.3% of them consider that they feel confused to learn terms used in a research, but 95% students are in the middle of thought about

whether terms used in research is really intimidating. On the other hand, 92% students believe that taking a course in research methods is similar to learning another language. This is in line with the following statement which proves that the students (93.5%) feel that it is difficult for them to understand books about research.

f) Research Course Anxiety

The following table presents descriptive statistics of course anxiety. There are eight statements (i.e No 6, 11, 16, 23, 32, 34, 37, and 41) for course anxiety.

Table 6. Percentages of course anxiety

No	Statements	Response (%)				
		SA	A	N	D	SD
6	I feel comfortable evaluating published research articles.	-	-	.6	92.6	6.8
11	Research method makes me feel stupid.	5.6	93.8	.6	-	-
16	Taking a course in research methods frightens me.	-	-	2.7	89.3	8
23	I would not have taken a course in research methods if it were not required.	-	-	-	91.1	8.9
32	Research methods should be taken as late as possible in a student's program of study.	-	-	-	89.9	10.1
34	I am terrified by the prospect of orally presenting a research proposal.	94.7	5.3	-	-	-
37	The word "research" scares me.	-	-	-	92.3	7.7
41	I know many people who have had a negative experience in research methods courses.	-	6.5	88.4	5	-

The table above proved that 92.6% students do not agree with their ability to evaluate articles that have been published. They consider research method as a factor to make them feel bad about writing a thesis (93.8%). That is why the students feel frightened to take a research course (89.3%). The students (91.1%) stated that they take research course as it is a required course for every student in a higher education context. They believe that a proper solution is that students should be offered with a research course in a beginner semester (89.9%). Another problem found by the students is that oral presentation becomes a difficult step to follow when they are defending their research proposal in a seminar (94.7%). Fortunately, they consider that many previous students had negative experiences with research course (88.4%).

g) Research Utility and Competence

The following table presents descriptive statistics of perceived utility and competence. There are fourteen statements (i.e No 8, 10, 12, 17, 19, 24, 27, 29, 35, 38, 40, 42, 43, & 45) for perceived utility and competence.

Table 7. Percentages of research utility and competence

No	Statements	SA	Response (%)			SD
			A	N	D	
8	Research methods should be left to the "experts".	6.5	93.5	-	-	-
10	I can never formulate a research problem.	-	5.6	91.7	2.7	-
12	I am confident of my ability to interpret research findings.	-	-	1.2	6.8	92
17	Students should not be forced to take research methods.	-	-	-	93.2	6.8
19	I can't conduct research on my own.	8.3	91.7	-	-	-
24	Research skills are important for graduate students.	92.9	5.3	1.8	-	-
27	I will never be a good researcher.	7.1	91.4	1.5	-	-
29	Research is interesting.		4.7	90.2	5	-
35	I do not have the aptitude to master research methods.	11.3	88.1	.6	-	-
38	Developing research skills is an important part of my professional development.	-	-	-	93.2	6.8
40	I am determined to become a competent researcher.	-	-	-	83.7	16.3
42	Research method is relevant for my field.	-	-	-	88.4	11.6
43	Knowledge of research methods can be applied in everyday life.	-	2.1	96.1	1.8	-
45	Research meetings/conventions intimidate me.	7.4	92.6	-	-	-

The above table revealed that the students suggest that research needs to be managed by experts (93.5%). There are several reasons for this. The students have difficulty to formulate a research problem (91.7%). They are not confident to interpret research findings (92%). They find it difficult to conduct a research in the field (91.7%) even though research skills are important for students (91.7%). Another problem is students' lack of aptitude to master research methods (88.1%) even though research skill development is an important part of professionalism (93.2%).

Below is the result of descriptive statistics concerning the types and levels of research anxiety and thesis writing.

Table 8. Descriptive Statistics of Research Anxiety and Thesis Writing

Indicators of Research Anxiety	Min.	Max.	Sum	M	SD
Library Anxiety	8	10	3032	9.0	0.46
Writing Anxiety	19	22	7021	20.8	0.62
Statistics Anxiety	9	13	3438	10.2	0.64
Anxiety in Conducting Research	11	18	4764	14.1	0.82
Research Language Anxiety	10	16	4362	12.9	0.77
Research Course Anxiety	24	30	8887	26.4	0.81
Utility and Perceived Usefulness	38	45	13816	41.0	1.12

Based on the above table, it is stated that the highest level of anxiety is utility and perceived usefulness (M=41) and the lowest level is library anxiety (M=9). There are seven types of anxiety towards research and thesis writing, namely utility and perceived usefulness, research course anxiety, writing anxiety, field research anxiety, research language anxiety, statistics anxiety, and library anxiety.

Results of Qualitative Questions

Problems in conducting field research and writing undergraduate thesis

The structure of this subpart relies on dominant numbers of data coding. We coded interview data using Nvivo 11 and have identified several general findings concerning problems faced by the senior students in conducting field research and writing their undergraduate thesis. In this case, we coded each participant with P1 – P9 and let them anonymous in order to respect research ethics.

a) Fear of library

The senior students who have begun writing their proposals believed in the importance of books, journal articles, online resources, and library when they are asked to begin submitting a title and writing a proposal. However, some problems seem to emerge during their proposal writing. First, a senior student seemed to feel worried when reading some books and journal articles to find a topic and formulate an appropriate title for the proposals. Formulating research title has been considered a difficult step as the student does not have any experience and focus towards writing a proposal. Student 1 (P6) said:

“When I was asked to submit a proposal, I even did not know what I can show as the topic and title of my future research. I tried to write some articles as my colleges suggested me to do, but it is ambiguous that I did not find any keyword that can help me out. It is, again, difficult for me to find a good title for my proposal after I read some references”. (P6)

Information gathered in the library is not only a matter of article or book contents, but also difficulties in terms of book or article archives organized in each subject. Even though it looks easy, but for many students it disturbs their motivation to search and read resources in the library. Students who find it difficult to search for a particular book or article might decide to relinquish dealing with library search during proposal or thesis writing. A student stated:

“I am not a student who always visits the library in the campus, because I usually use the books I bought in the internet to find related information for any given task. Unfortunately, once I visited the library to find some references for my thesis, I was lost as I can't find any book I need in such a big building with

thousand books on each shelf. I found that it was uneasy to search for a book we need among hundred similar books. I am sure that this problem occurs as I am a less active member of library". (P9)

Additional support from librarian is needed to help students search for a particular reference. More importantly, habit to visit a library is helpful for students who are asked by their supervisors to find related information for their thesis writing. A problem appears when such students are not aware of their task to keep reading books and other references such as journal articles or magazines.

b) Fear of writing

It is noted that anxiety in writing a thesis proposal or report is one of the challenges for senior students. The reason is because writing is believed to be a complicated activity consisting of writing organization and structure, content, and linguistic elements such as diction, term, and grammar. As a student confessed:

"Writing a thesis proposal is really challenging for me as a senior student whose task is to begin writing sentences to sentences and paragraphs to paragraphs with meanings. For me, writing is always a difficult subject that I can't accomplish as I do not have any ideas about what to write in my thesis proposal. I can't believe in myself when I have to write twenty five to thirty pages before submitting such research proposal. I am afraid of using particular terms as parts of my research topic. I am not sure it is correct, because I think it has no relationship with other terms". (P5)

Difficulties in writing reduce students' enthusiasm to begin compiling sentences and paragraphs to become a complete thesis proposal or report. A student said:

"I even lost my motivation to write my thesis proposal just because I worried about how to begin writing the proposal. I sometimes do not any idea what I should write in the introduction part, what I have to discuss in literature review, and what I need to include in chapter three, research method part". (P1)

Lack of motivation in writing a research proposal or report reduces students' concentration to accomplish such task. It can also affect on their ability to relate one part of proposal or report to another part.

c) Fear of statistics

For many students, statistics is a difficult term, subject, and analysis to be undertaken. In this study, the students believed that statistical analysis for research data is paramount that it helps them to answer quantitative research questions. However, running such statistical analysis has been challenging the students as some of them do not learn statistics more comprehensively.

"In my thesis the analysis used is inferential statistics such as pair sample t-test. Honestly speaking, I was helped by a friend from Math major to calculate the

data I collected from respondents. I cannot avoid such statistical analysis, because my research focused on experimental study which forced me to use statistics.” (P7)

Another student stated:

“I attended statistics class in semester 4 and I was sure I can do several statistical analyses for my future thesis. However, when I am writing my thesis, it is not easy to begin analyzing data by using statistical analysis even with application like SPSS. I am very doubtful about steps of analyzing data with statistics. It is very complicated for me to continue analyzing my data. ” (P2)

There are at least two problems found by the students. First, the students feel difficult to use application of statistics such as SPSS to analyze their quantitative data. Second, they are not able to follow each step in analyzing their data even though they have learnt how to use statistical analysis before.

d) Fear of conducting research in the field

Another problem identified in this context is challenges in undertaking research in the field. Students who have been allowed to take data have to begin preparing an instrument based on research questions they compile. Research instrument is challenging for the students as it needs to be a valid tool for quantitative research and trusted tool for qualitative research.

“Because I conducted a mixed-method study, I used at least two instruments. First, I give questionnaire and then interview participants based on the results of the first instrument. The problem is that I was not sure that the instrument for quantitative data is appropriate for collecting the data. When I collected the questionnaires from the participants, I felt there was a mistake I have made in the questionnaire. I thought that some statements in the questionnaire were not translated well. It can be ambiguous and the participants might have different meaning of the statements.” (P4)

A student whose task is to collect qualitative data from teachers in a school found that he did not have enough motivation to collect such data as the teacher participants were experienced and senior teachers.

“I was worried to interview some senior and smart teachers in a school. I did not have any idea about enlisting interview questions for them. Probably, I did not know anyone to whom I can contact with. It was a challenging data collection for me. When I began my interview, I was not really confident to speak to the informants. They have good language structure, better discourse, and deep understanding on the topic about teaching and learning strategies that I wanted to ask.” (P3)

Coping strategies towards anxiety in conducting field research and writing a thesis

Even though there are problems in writing a proposal and accomplishing research report, the students have indulged themselves into several strategies to cope with the challenges during their research.

“I keep learning how to paraphrase sentences from the internet. I browse some important information from websites to figure out strategies in paraphrasing references for my research proposal. It is a difficult activity, but at least I have succeeded on paraphrasing many sentences and I feel happy. It motivates me not to stop learning new ways of reading and then paraphrasing important references. It is difficult when I began such new strategies, but then I have been able to paraphrase short sentences.” (P8)

Better competence in writing can be enhanced by intensive practices for a bit long time. This is like what a student experienced.

“As an undergraduate student, I am never a good writer, but it forces me to write in a better way. What I usually do is writing everything I want. I write a short story, poem, and future plans. If I want to check my writing result, I use online application. Sometimes, I have some discussion with senior students and smart students in my class and we talk about writing thesis proposal and report. I am not shy to ask what I do not know. I feel it is effective to enhance my competence in writing.” (P2)

As for statistical analysis, several students use online practice to help themselves learning steps in analyzing quantitative data.

“As I was asked by my supervisors to use statistics as data analysis, I decided to learn how to use SPSS via online materials and websites. There are a lot of sources that can be used for learning statistical analysis and I really enjoy doing it during my spare time. There have been various statistical aspects that I have been learning such as t-test, regression, descriptive statistics. I did not know the meaning of Standard Deviation before, but now I have sufficient knowledge to analyze my data.” (P8)

The students also increased their motivation to conduct a research in the field by preparing research instrument as detailed as possible. A student said that “confidence in doing research is enhanced by preparing myself with valid questionnaires and depth interview guide.”

Conclusion

Research anxiety can be experienced by every student researchers for many reasons, including lack of ability, motivation, and focus on different research indicators. Dealing with proper strategies help to solve the research problems. To begin, repeated exercises towards research-related activities such as statistical analysis have to be done in order to develop knowledge on that research indicator. The more a research activity is repeated, the higher such related competence will be obtained. Another important issue about the strategies is enhancing

motivation and mental strength to deal with research and its indicators. The implication of this study is that each kind of anxiety in doing a research and writing a thesis can be avoided by the students. In addition, it is strongly recommended for further researcher(s) to focus on determining strategies to reduce such anxiety and it can be done through either quantitative or qualitative approach.

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