Developing Anxiety Scale of Writing Thesis on Students

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Abstract: The obligation to complete studies is one thing that must be experienced by a student. One of the obligations as a student in completing studies is the preparation of a thesis. This study aims to produce a thesis anxiety scale instrument for students which is a non-test instrument. This research is development research that uses three stages of development, namely preliminary research, prototyping stage and assessment phase. The subjects in this study were 131 students from 23 study programs in the Faculty of Education, Sebelas Maret University. The student anxiety instrument in the thesis developed three important indicators that affect anxiety, namely cognitive aspects, affective aspects and psychomotor aspects. Data analysis using the percentage of agreements and product moment analysis. The results of this study indicate that there are 29 items of thesis anxiety that are declared valid with a high level of reliability. Anxiety in writing this thesis greatly affects student performance and has an impact on the duration of thesis writing.

Keywords: Anxiety Scale; Anxiety on Students; Thesis

Introduction

This research and development are based on the findings of researchers who capture confusion and complaints from students in facing the thesis completion process. Obstacles in the process of completing the thesis are common; each individual has different difficulties. Various obstacles arise and must be faced by students. The untrained students in thesis writing and research causes student anxiety to arise (Situmorang, Mulawarman, & Wibowo, 2018). The anxiety that appears can interfere with the smooth completion of the thesis; this anxiety arises from the difficulties that students encounter. Some of the difficulties or obstacles experienced by students are (1) difficulty in finding reading sources (literature), (2) weak scientific writing flow and methodology plus lecturers who always provide revisions so that students feel always blamed, (3) supervisors who are difficult to find (Marjan, Sano, & Ifdil, 2018; Simanjuntak & Šosrodiharjo, 2014). Based on these three obstacles, anxiety arises that there will be delays in student thesis completion, the anxiety that arises will also affect student performance in pursuing study completion.

Constraints experienced by students in the preparation of theses hampered the thesis work process. The delay in completing this thesis has impacted such as anxiety, stress, behaviour change and even depression. Emotional changes due to pressure in the final project make individuals feel depressed and have an impact on stress levels (Sena & Ulansari, 2020). Other studies also explain that the psychological impacts that occur due to late thesis work include stress, anxiety, fear, restlessness, difficulty sleeping, and boredom (Permatasari, Arifin, & Padilah, 2020).

Anxiety is a negative emotional state characterized by premonitions and signs of psychosomatic tension, such as abnormal heart palpitations, sweating, and difficulty breathing (Dunaeva, 2017; Satsangi & Brugnoli, 2018). Without realizing it, these characteristics will be seen very clearly in individuals who experience anxiety. These characteristics do not appear completely, sometimes appear only a few. But this really interferes with daily activities. Anxiety arises as a result of demands that exceed the individual's ability to fulfil them (Sari,
Bulantika, Utami, & Kholidin, 2020). This demand is a problem that has an impact on individual health.

Individuals who experience anxiety often experience complaints on their health, but when they have medically examined the results are fine (Yuliidarwati, Hikmah, & Ma’rufa, 2020). Such a situation can interfere with the daily activities of sufferers of anxiety because they feel that their activities are obstructed, and even the individual cannot do anything. Anxiety is centred on a person's affective because anxiety can be observed through a person's behaviour or attitude. The effect of anxiety is related to symptoms because they appear naturally in everyday life or as a dynamic process in a person (Naragon-Gainey, 2019).

Anxiety is conceptualized as one negative influence. Symptoms of anxiety are associated with a tendency to overestimate the negative influence of oneself and others and underestimate the positive influence of others (Hall, Joormann, Siemer, & Timpano, 2018). Anxiety is directly proportional to high tension, anxiety as a mixture of activation and discomfort. A person's tension and discomfort with a condition can be minimized with a positive concept on a person's psychology. The more a person has a positive concept of a situation, the psychological state will be healthy, normal and fine.

Someone who has a negative concept of something that creates excessive anxiety can be seen from several symptoms. Anxiety disorders are characterized by excessive fear and behaviour changes (Maina, Mauri, & Rossi, 2016). Behaviours that arise in anxiety can be observed very clearly, starting from the expressions and movements of the individual's body. Someone who experiences anxiety disorders, external and internal stimulus disorders produce unstable emotions which are the main source of anxiety disorders (Rinaldi & Yuniasanti, 2020). Other symptoms of an anxiety disorder include excessive anticipation of anxiety, increased levels of attention when approaching the feared situation. Also, someone who has an anxiety disorder tends to avoid stimulation in situations that trigger anxiety (Amalia, 2019; Purwaningtyas, 2020). Thus, individuals tend to avoid things that make them uncomfortable and feel afraid, so that later they don't experience anxiety.

Students who experience anxiety when completing their thesis are psychological factors in the form of frustration, pressure, and demands (Mulya & Indrawati, 2017; Wakhyudin & Putri, 2020). So students need to get social support from the surrounding environment, including supervisors and non-supervisors. Students who experience anxiety sometimes become individuals who withdraw from their environment. A person who experiences social anxiety will avoid situations where it is potential for others to evaluate (Farihah & Rachman, 2017; Rakhmahappin & Prabowo, 2014). For example, students who have difficulty in the process of working on their final project will feel anxious when a friend asks about the progress of the final project.

The results of these studies have implications for the need for special attention to student anxiety, especially in the process of completing the thesis. Lecturers can carry out assessments and prepare certain specific interventions for this anxiety. However, until now, there is still no specific instrument that can measure anxiety in the context of completing thesis writing. The currently available instruments can only measure anxiety in different or general contexts, for example, the Hamilton Anxiety Rating Scale (HARS) and the social aspect anxiety scale. Also, the existing anxiety scale is the scale of anxiety in facing the National Examination, for mothers who want to give birth, on academic scores, and so on. So it is less specific and less precise if it is to measure thesis students. The specifications can be seen from measurements using an assessment instrument.

Thesis anxiety scale in research and development uses three aspects of anxiety, according to Gail W. Stuart. The three aspects of anxiety are behavioural, cognitive and affective (Stuart, 2006). Each of these three aspects has three indicators. So the total indicators in this study are nine indicators and arranged into an instrument/assessment. Indicators of this
aspect include confusion, impatience, worry about procrastination, withdrawal and embarrassment. Assessment is a process of collecting, analyzing, and interpreting information about students and their environment which aims to be able to understand the condition of individuals and their environment as a basis for developing guidance and counselling programs (Komalasari & Wahyuni, 2011). This study developed a non-test assessment instrument that produced an anxiety scale. The anxiety scale arranged is used to determine student anxiety on final assignments at the Faculty of Education, Sebelas Maret University.

Methods
This research and development use educational design research method. This research will be carried out in three main stages, namely: (1) Preliminary research, (2) Prototyping stage and (3) Assessment phase. The first stage is preliminary research, in the preliminary stage, this research emphasizes the validity of the content, meaning that researchers begin to study the Thesis Anxiety Scale of Students to be developed. Studies to develop products are also strengthened by considering the empirical gap (the gap between expectations and factual data in universities). Collecting data from the results of this study is needed to strengthen the background of the problem, its objectives and benefits. The data collection technique was carried out through interviews with three subjects, namely students of the FKIP UNS guidance and counselling study program. Interviews were conducted at the beginning of the research, namely in July 2020. Based on the data from the results of this study, information about the needs, situations faced by students and innovations in developing the Thesis Anxiety Scale for Students can be prepared, so that an initial product design can be prepared.

The second stage is the prototyping stage (development) starting after the preliminary research phase ends, and a set of provisional design guidelines and design proposals have been made. At this stage, it includes designing the Thesis Student Anxiety Scale instrument. The cycle used is the initial product development-evaluation-revision/improvement. The development stage or prototyping stage, the researcher develops a product based on formative evaluation and evaluation, which is carried out through expert judgment to test its validity. At the prototyping stage, a thesis student anxiety scale prototype will be developed, and an expert will carry out a feasibility test. The parties who will test this product are 3 experts in the field of guidance and counselling. The feasibility of this product will consider three things, namely validity, practicality and effectiveness.

The third stage is the assessment phase, which is the stage to evaluate whether the product being developed can be applied to users. Also, to find out whether the product being developed is effective in its use. In the assessment phase, field trials were conducted on 131 FKIP UNS students. Testing of product validity and reliability was carried out on 131 FKIP UNS students consisting of 23 study programs. At the same time, the expert test was carried out by involving 3 (three) academics in the field of Guidance and Counseling, namely internal lecturers from the FKIP UNS guidance and counselling study program.

The analysis used to determine expert agreement is the Percentage of Agreements, by calculating the agreement of the experts on the instrument being tested. Percentage of Agreements will later produce a picture of the expert’s agreement regarding the developed anxiety scale. The analysis used to determine the level of validation using the product-moment test. After that, it was continued with reliability testing.

Results and Discussion
The results of this research are a scale of student anxiety in completing the thesis. The content of this anxiety instrument is structured; namely, there are 3 aspects of anxiety, which are broken down into 12 indicators. Furthermore, it is further broken down into 36 statements. After testing the content validity by experts in the field of guidance and counselling, it was
obtained that the thesis anxiety scale instrument rating for students by guidance and counselling experts as a whole showed a result of 0.74 (high). The scoring is done expertly giving values ranging from 1 (very poor), 2 (poor), 3 (good), and 4 (very good). The validity criterion is that 29 items have a significant value <0.05, so they are declared valid. Meanwhile, 7 items have a sig value > 0.05, so they are declared invalid. The results of the instrument validity test using the Product Moment test, which is that there are 7 invalid items from the 36 available items and need to be corrected/removed. Making validity decisions is based on a significance value (2-tailed) with a probability of 0.05.

### Table 1. Reliability Test Results of Thesis Anxiety Scale Instruments

| Reliability Statistics | Cronbach’s Alpha | N of Items |
|------------------------|------------------|------------|
|                        | 0.849            | 29         |

The reliability statistics table shows the analysis results of the reliability test with Cronbach's Alpha having a value of 0.849 out of 29 valid items. The reliability value of 0.849 is moderate. So it can be said that the results of reliability are 0.849> 0.05 so that it can be concluded that this instrument is reliable. The results of the validity and reliability test show the items in this instrument are valid and reliable. Validity and reliability testing is fundamental in the preparation of non-test instruments. To obtain correct and accurate information which greatly influences decision making, good measuring tools are needed, namely those that meet the requirements of both validity/validity and reliability/reliability (Friska & Darwis, 2017).

A research instrument is a tool used to collect data or measure objects from a research variable (Yusup, 2018). Early development of this instrument was done by multiplying the existing phenomenal in the field. Preliminary studies are used to describe existing phenomena systematically, factually, accurately, and as they are. The results of this preliminary study in research and development were obtained from interviews with students who were preparing their thesis.

Collecting data from the results of this study is needed to strengthen the background of the problem, its objectives and benefits. The data collection technique was carried out through interviews with three subjects, namely students of the FKIP UNS guidance and counselling study program. Interviews were conducted at the beginning of the research, namely in July 2020. Based on the data from the results of this study, information about the needs, situations faced by students and innovations in developing the Thesis Anxiety Scale for Students can be prepared, so that an initial product design can be prepared.

The conclusion obtained based on the results of these interviews is that they complained about the lack of motivation in the completion of the thesis, which resulted in delayed thesis completion. However, their lecturers did not realize this phenomenon. This is where the importance of developing an anxiety measurement instrument when compiling a thesis that can be used as an initial assessment so that the anxiety experienced by students is not prolonged and can be immediately resolved. Also, the anxiety scale instrument compiling a thesis for students is needed because there has been no similar development. In contrast, students who experience anxiety need to be immediately followed up. (Hutapea, 2019).

The cycle used is the initial product development-evaluation-revision/improvement. At the development stage or prototyping stage, the researcher develops a product based on formative evaluation and evaluation through expert judgment to test its validity (Plomp & Nieveen, 2013). At the prototyping stage, a thesis student anxiety scale prototype will be developed, and an expert will carry out a feasibility test. The parties who will test this product
are 3 guidance and counselling experts. The feasibility of this product will consider three things, namely validity, practicality and effectiveness.

Furthermore, the assessment phase is a stage to evaluate whether the product being developed can be applied to users. Also, to find out whether the product being developed is effective in its use. At this stage, the product in the form of a thesis anxiety scale instrument for students was tested on 131 students of the Faculty of Education, Sebelas Maret University. This trial is to measure the validity and reliability of items on the instrument. The appropriateness of a research instrument is determined by its validity and reliability (Yusup, 2018). The validity of the instrument concerns the extent to which the measurement is precise in measuring what it wants to measure, while the reliability questions the extent to which a measurement can be trusted because of its consistency. The instrument is said to be valid when it can reveal data from the variables appropriately not deviating from the actual situation. The instrument is said to be reliable when it can reveal reliable data. This validated scale will be a useful tool for researchers and instructors to assess student (Ganley & McGraw, 2016).

The development of this data collection instrument is expected to help related parties such as lecturers and students in getting an idea of the anxiety faced by students when compiling their thesis. This anxiety instrument can later evaluate the anxiety experienced by students, evaluate the effectiveness of their intervention with clients who experience dysfunctional anxiety (Westhuis & Thyer, 1989). The instrument for developing this anxiety scale is adjusted to existing indicators and adjusted to student development. This is by the opinion which explains that making statement items about the subject's responses must be adjusted to their own and other people's thinking, each of which is called affective forecasts (Hall et al., 2018). Symptoms of anxiety are associated with a tendency to overestimate the negative effects of oneself and others and to underestimate the positive effects of self.

Conclusions and Suggestions

The conclusion of this research and development is to produce a thesis anxiety scale instrument for students which consists of 36 items. Based on the stages carried out, the prepared instruments are ready to be used to measure the level of thesis anxiety in students. The results of measurements using this instrument can be used as a reference for the first aid given to students who are indicated to experience anxiety when compiling their thesis and can be immediately helped.

The suggestion that can be given is that academics at universities can use this instrument to measure the level of anxiety of each student's thesis so that there is no delay in graduation, students are lost because they do not want to consult, as well as other causes that can harm agencies and students. Also, the products produced in this study can be used as materials for further research with different methods and subjects.

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