



Design of Social Anxiety Measurement Tools for User of Social Media

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Abstract. Users of social media experience both positive and negative effects. Social anxiety is one of the unfavorable outcomes. Social anxiety among social users manifests as feelings of shame and withdrawal as a result of social engagement processes. In order to assist guidance and counseling teachers in overcoming social anxiety among adolescent social media users, we require a measurement instrument. This research attempts to develop new, valid measures for measuring social anxiety among social media users. This study utilizes the ADDIE approach for research and development (R&D). This investigation was undertaken at three high schools in Yogyakarta. Purposive sampling was employed for the sampling method. With a sample of pupils from class X. This product passed both visual and functional evaluations. The instrument's content validity was calculated using the Aiken V formula. Exploratory component analysis was performed for the construct validity analysis. Analysis of product reliability using Cronbach's Alpha and SPSS. The results indicated that the social anxiety measurement instrument for social media users has good criteria and an appearance validity of 87.22 percent. A content's validity is determined by a value greater than 0.76, which places it in the acceptable category and makes it suitable for use. Three variables composed of 32 items were used to determine to construct validity. Instrument dependability indicates the number 0.801 Therefore, it is possible to infer that the tool for evaluating social anxiety among social media users is usable.

Keywords: measurement tools · social anxiety · individual counseling

1 Introduction

Increases in the use of electronic devices in the form of mobile phones are accompanied by increases in the use of the internet in all circles [1]. One of the uses of electronic devices is to access social media [2]. Social media is a collection of internet-based apps that enable users to engage, share, and communicate with diverse offers such as blogs, social networks, and forums, among others. In January 2022, there were 191,4 million social media users in Indonesia, according to Simon's estimate on datareporting.com,

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a statistical website that calculates global media demands. In Indonesia, the number of social media users grew by 21 million or 12,6% between 2021 and 2022. In January 2021, 68,9% of the total population of Indonesia will be social media users [3]. In Indonesia, YouTube, WhatsApp, Instagram, Facebook, and Twitter are the social media applications with the highest usage. The most significant distinction between adult and adolescent social media use is that adults use social media to stay current and connected with close friends, but adolescents use social media primarily to not limit their posts to friends [4]. The ease of obtaining and sharing information fosters social cohesion and connection, causing many individuals to remain on social media [5].

Social media has an effect on its users, even adolescents. The engagement of adolescents who use social media platforms is affected by these sites. This population faces cyberbullying, educational and mental health effects, sexting, and privacy concerns as a result of social media use [4]. Changing social relationships has psychological effects on a person, namely social interaction anxiety. Several participants dreaded receiving negative comments online and looked for measures to mitigate this, such as posting less content and commenting on friends' profiles. Teens' susceptibility to peer pressure and diminished self-control [7]. There is a correlation between internet use and social anxiety. Social anxiety, depression, and loneliness significantly impact the development of social media dependence [8]. Moreover, social media reporting and anxiety levels are substantially associated.

Specifically, each social media affects adolescents' life. Facebook social media and electronic devices hurt pupils' academic motivation [9]. Moreover, Instagram has an impact on adolescents. Research by Rahayu discusses the impact of Instagram body shaming on a teen's self-esteem. Due to body shaming on social media, a person's self-confidence may decline [10]. Selain itu remaja pengguna instagram dapat mengalami kecemasan, depresi, kesepian, bullying dan body shaming [11].

For hate speech on Instagram, social media users experience unpleasant emotions such as rage, discomfort, sadness, depression, embarrassment, fear, lack of confidence, and pain [12]. Social anxiety is one of the negative effects of social media that can be deduced from the preceding explanation.

Social anxiety is the result of an emotional process that occurs when an individual faces pressure, frustration, and conflict [13]. The sentiments that a person with social anxiety feels include feelings of guilt, embarrassment, and worry about the judgment of others, as well as a desire to withdraw from social situations [14]. Social anxiety creates stress that hurts social life [15].

It is necessary to prevent and cure social anxiety because, if left untreated, it can lead to extreme antisocial conduct. To anticipate severe anxiety, it is vital to implement guidance and counseling activities as a form of prevention. In guidance and counseling services, guidance and counseling teachers or counselors require a tool to assess the amount of social anxiety among teenagers who utilize social media. Over the past few decades, numerous academics have focused on the development of social anxiety measurement measures. The following scale has been utilized in numerous research, along with adaptations for numerous other languages. Fear of Negative Evaluation (FNE) and Social Avoidance and Distress (SAD) scales were developed and verified by Watson and Friend [16]. (SAD). Yunus Alkis created the Social Anxiety Scale for Social Media Users

(SAS-SMU), which measures student social anxiety caused by social media platforms [17].

Each of the aforementioned equipment has its measurement field and range. This study created an assessment instrument for Android-based social media users that can be used to assess social anxiety. Compared to the creation of prior instruments, this research has parallels with SAS-SMU, but its development objectives are distinct. This study targets adolescent users. Several anxiety measures have in fact been produced, but the objective of this study is to further develop and refine an instrument for measuring social interaction anxiety among social media users. This study's instrument is a summated rating scale or Likert-type scale model with five tested alternative response options. Fear of negative evaluation, social avoidance and feeling depressed in new situations or dealing with strangers or new situations (Social avoidance and distress in a new situation), and social avoidance and distress experienced in general or with people you know are the three aspects of social anxiety that were used to develop the instrument (social avoidance and distress experienced general). This development investigation resulted in the creation of a measuring device that has never been developed before. The resulting measuring tool is a social anxiety measurement tool for users of social media. The outcomes of the interpretation will later serve as a reference when acquiring personalized counseling services.

2 Methods

This research development model is a model for research and development. This research aimed to design a social anxiety instrument whose results would be used to evaluate providing guidance and counseling services to adolescents who use social media. This advancement alludes to the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) research and development model [18]. The ADDIE development approach is utilized because the ADDIE idea serves as a guiding framework for complicated situations, making it highly applicable to the creation of educational products and learning tools. In addition, the educational concept of ADDIE is student-centered, innovative, genuine, and motivating.

The research subjects in this study were adolescents who attended formal high school education in the city of Yogyakarta. The trial took place in three Muhammadiyah schools in Yogyakarta. Data collection strategies involve questionnaires and interviews. The techniques used for data analysis are qualitative and quantitative analysis. Qualitative analysis uses data collecting techniques, data reduction, and data presentation. While quantitative analysis is conducted by examining the survey using a Likert scale.

3 Result and Discussion

The development research that has been carried out produces a product in the form of a social anxiety measurement instrument for social media users. This product is an alternative psychological measurement tool that has the advantage of direct interpretation and recommendation. The product was developed using the development stage according to Branch [18] and modified with the instrument development stage developed

by Saifudin Azwar, namely, identification of measuring objectives (establishing theoretical constructs), limitations of measuring domains (formulating behavioral aspects), operationalizing aspects, writing items and item review, language trials, field tests, item selection, construct validation, and final compilation [19].

Analysis (analysis)

This development research began with preliminary research on 15 guidance and counseling teachers in the city of Yogyakarta. Preliminary research data collection was carried out using methods such as interviews and questionnaires. Through this preliminary research, information was obtained to support the development of anxiety measurement instruments, namely: there were still many Guidance and Counseling teachers who had not measured anxiety in depth. Guidance and Counseling teachers have used assessments as a basis for making programs, but the assessments given are general or integrated assessments. There are still guidance and counseling teachers who have obstacles in measuring anxiety such as time, analytical skills, and problems of student openness and there are no instruments that can be applied easily. Therefore the development of a social anxiety measurement instrument that is more specific and easier to interpret.

Product planning (design)

Product planning is an important part of development research. In this step, there is a separate workflow that is related to the preparation of a psychological scale. The preparation of the psychological scale in this study is based on the theory put forward by Azwar [19].

1) Identification of measuring objectives

Instruments are arranged based on aspects of social anxiety and statement items are modified according to adolescent behavior in social media. The aspect of social anxiety used is according to La Greca & Lopes [20] the aspect of anxiety is divided into three namely fear of negative evaluation, social avoidance and feeling depressed in new situations, social avoidance, and feeling of pressure experienced in general.

2) Measure domain restrictions

The limitation of the measuring domain in this study is the adjustment aspect of social anxiety in adolescent social media users.

3) Operational aspects

In the next stage, aspects of social anxiety are reduced to a grid of instruments for measuring the social anxiety of social media users which contain aspects, indicators, and statements. From this stage, 32 statements were produced which were considered to represent instruments for measuring the social anxiety of social media users.

4) Review items

Item review is carried out through face validation, content validation, construct validation, and instrument reliability tests. Face validation is assisted by three validators who are guidance and counseling practitioners. The results of the face validation test when converted into criteria are included in the good category or an average of 87.22%

Table 1. RECAPITULATION OF THE RESULTS OF LARGE GROUP TRIALS BASED ON DATA

No	Indicator	Component matrix	Accepted	Not Accepted
1	<i>Fear of Negative Evaluation</i> (ketakutan akan evaluasi negatif)	9	9	-
2	<i>Social Avoidance and Distress New</i>	9	9	-
3	<i>Social Avoidance and Distress General</i>	14	14	-

and are feasible to be tested on students. Furthermore, content validation was assisted by two expert lecturers and four school practitioners. The results of the assessment of the testing of social anxiety measurement instruments for social media users through filling out assessments by expert validators and practitioners. The critical value of the 6 validators when seen in the Aiken table with four answer choices is 0.76. From these results, it can be concluded that all items can be tested because they are all above 0.76. The calculation of construct validation was carried out after the revision of the expert judgment. Initial trials were conducted on 112 students in three Muhammadiyah high schools in the city of Yogyakarta (Table 1).

The calculation of construct validity uses the SPSS 25 application, the Exploratory Factor Analysis (EFA) method. The results of construct validation have several matrices. The matrix component is item grouping on a new indicator from the Exploratory Factor Analysis (EFA) results. EFA analysis is used to recognize and identify the various factors that make up the construct by finding the largest score variance with factors expressed in the form of eigenvalue > 1.0 [19].

The research departs from the marker (manifest) after which it forms variables. The results of the EFA analysis are the results of KMO and Bartlett's test, Anti images matrices, total variance explained, scree plot, and rotated component matrix. In the need assessment instrument that was tested on a large group, if the item exceeds a value of 0.4, the item is considered to have passed. The results of construct validation have several matrices. The matrix component is item grouping on a new indicator from the Exploratory Factor Analysis (EFA) results. The results of the KMO test from calculations on the first indicator, namely Fear of Negative Evaluation, is 0.682 with Bartlett's test of sphericity with a significance of $p < 0.000$. Because the KMO value is greater than 0.50 and Bartlett's test of sphericity significance is less than 0.05, the factor analysis in this study for the first indicator can be continued because it meets the requirements. MSA requirements testing of 9 Items. The MSA value is in the Anti-Image Matrices table. Tests are carried out to find out which items are included in the factors and items which are not included in the factors. Based on the calculation of the 9 Anti-Image variables, the results show that all items have a count of > 0.50 . So that the correlation between items is Valid or no items are dropped. Scores on the test obtained a value of 0.572a (minimum value) and 0.761a (maximum value).

Table 2. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.801	.800	32

The results of the KMO test from calculations on the second indicator, namely Social Avoidance and New Distress (social avoidance and feelings of pressure in situations that are new/associated with strangers/new) are 0.599 with Bartlett's test of sphericity $p < 0.000$. Because the KMO value is greater than 0.50 and Bartlett's test of sphericity significance is less than 0.05, the factor analysis in this study for the second indicator can be continued because it meets the requirements.

MSA requirements testing of 9 Items. The MSA value is in the Anti-Image Matrices table. Tests are carried out to find out which items are included in the factors and items which are not included in the factors. Based on the calculation of the 9 Anti-Image variables, the results show that all items have a count of > 0.50 . So that the correlation between items is Valid or no items are dropped. Scores on the test obtained a value of 0.559a (minimum value) and 0.703a (maximum value).

The KMO test results from calculations on the third indicator, namely Social Avoidance and General Distress (social avoidance and feelings of depression experienced in general/with familiar people) is 0.634 with Bartlett's test of sphericity $p < 0.000$. Because the KMO value is greater than 0.50 and Bartlett's test of sphericity significance is less than 0.05, the factor analysis in this study for the third indicator can be continued because it meets the requirements.

MSA requirements testing of 14 Items. The MSA value is in the Anti-Image Matrices table. Tests are carried out to find out which items are included in the factors and items which are not included in the factors. Based on the calculation of the 14 Anti-Image variables, the results show that all items have a count of > 0.50 . So that the correlation between items is Valid or no items are dropped. Scores on the test obtained a value of 0.539a (minimum value) and 0.746a (maximum value).

5) Reliability

Based on the results of calculating reliability with Cronbach's Alpha, the instrument for measuring social anxiety for social media users is 0.801. Azwar [19] states that an instrument is said to be reliable if r_{xx} is close to 1.0, which means there is perfect consistency in the measurement results (Table 2).

Thus it can be stated that the instrument for measuring the social anxiety of social media users is said to be reliable and has a value of 0.801.

4 Conclusion

The instruments for measuring the social anxiety of social media users that have been developed are highly feasible to be used as an alternative measurement tool to measure

the level of anxiety of adolescents as users of social media easily and practically. Instruments for measuring social anxiety for social media users can be used as an alternative measurement instrument for Guidance and Counseling teachers in High Schools (SMA) in the implementation of guidance and counseling services, especially for dealing with the social anxiety of social media users.

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