

Validity and Reliability of the Aggression Questionnaire Instrument to High School Students

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Abstract:- This article discusses the construct validity and reliability of Aggression Questionnaire Instrument. The instrument was developed based on past literature, expert opinion and research objectives. Expert interview was conducted to obtain a validation to identify the value and level of internal consistency. Result shows the overall value of Cronbach's alpha for the instrument is 0.848. However, each construct shows a different value of reliability. Based on the result, the reliability of aggression questionnaire instrument is remarkably high.

Keywords: *Validity, Reliability & Aggression Questionnaire Instrument.*

I. INTRODUCTION

In the development of education, the rate of aggressive behavior is alarming to many parties, including parents, teachers and worldwide community. The aggressive behavior is increasing day-by-day, and this problem should be addressed immediately to prevent worse problem occurs in future. According to [1], this issue should be discussed seriously and solved immediately by the Ministry of Education. Aggressive behavior is a behavior designed by individuals for the purpose of harming others, and this behavior should be avoided. Feelings that arise in one's heart such as sadness, disappointment and attack can cause the person to feel anger. The anger will lead to the aggressive behavior that causes the person to become angry. There are also some angry individuals who act aggressively, but they did not realize the aggressive action. Therefore, factors to control aggressiveness are equally important to factors to emerge the aggressiveness. Past experience is an important mechanism to identify individuals with aggressive behavior [2]. Many studies have used the term aggressive behavior to describe the unusual behavior or normal behavior. On the other hand, psychologists use terms such as antisocial behavior, offending behavior or chaotic behavior. Dominick explained that the aggressive behavior is a conscious or unconscious behavior formed by repeated aggression, which is caused by a stimulus. Individuals who behave aggressively have aggressive traits in their mind, and they will show the aggressive behavior that occurs around them [3]. According to Abidin, the aggressive behavior can be divided into three categories. First, the behavior that can harm, hurt and offend others. Second, the behavior that can harm, hurt and offend others intentionally. Third, the behavior that involves psychology such as insulting someone with abusive words

[4]. According to [5], aggressive behavior is a physical or verbal action in a violent manner. On the other hand, Scheneiders suggested that the aggressive behavior is a verbal or non-verbal reaction due to one's failure [6]. Moreover, the aggressive behavior is also defined as an action taken by an individual with the intention to hurt another individual without a specific purpose. It is a behavior with physical or verbal violence against the victim [7].

II. DEFINITION OF AGGRESSIVE BEHAVIOUR FROM ISLAMIC PERSPECTIVE

In an Arabic dictionary, behavior is translated as *khuluqin* or *akhlak* [8]. *Akhlak* comes from the Arabic language, which means personality, moral, custom and behavior [9]. This concludes that behavior and moral have the same meaning to explain humans behavior. Noble character is the establishment of Muslim communities with good practice such as trust, honest, truthful, sincere and comply with promises. Furthermore, individuals with noble character will resent forbidden things by Allah s.w.t and restrain themselves from the desire to evil things [10]. For example, the arrival of the Prophet Muhammad s.a.w is a source of blessing to the whole universe. Al-Ghazali and Abu Hamid Muhammad [11] mentioned that morals and manners describe the state of one's soul (*ruhiyyah*). Good moral is a manifestation of a healthy soul, and poor moral is an outcome from an unhealthy soul. They also stated that every man has the unhealthy soul that should be treated promptly. If it is delayed, then the problem will become worse. They also proposed that good manners have high control on four powers in human's body, namely, the power of anger, the power of desire, the power of justice and the

power of knowledge. The power of knowledge occurs when there are significant differences between good and bad elements. The individuals that possess the power of knowledge are individuals with wisdom, which is an ability to discern good and bad elements. The wisdom is a state of soul that leads individuals to perceive the faults and mistakes that they have committed. This helps the individuals to nurture good morals.

[12] suggested that morals can be shaped and developed. For example, an individual with bad characters has a potential to change the bad characters into good characters. Imam Al-Ghazali also mentioned that if wild animals can be trained and tamed with special training, then the individual that has the knowledge and ability to distinguish the good and the bad should be easier to be trained with good morals. However, the changes require a consistent and endless effort to ensure that the individual becomes a better person with good characters [12]. Man is created with the physical and spiritual elements that require a balance. Religious practices reflect a strong spiritual in his life [13]. The balance of the two aspects leads to good manners. Good manners is defined as a good and positive behavior that can describe faith and piety to Allah s.w.t. Every human being should build good relationships with other people, regardless Muslims or non-Muslims to create a unity in our lives. Today, disagreement and disharmony among Muslims happen because many people do not prostrate and worship properly to Allah s.w.t [14].

III. TYPES OF AGGRESSIVE BEHAVIOUR

- a) Physical
- b) Physical aggressive behavior is defined as violence against a person such as bully, duel, hit, kick and other violence that can hurt someone physically. Bullying among students, for instance, is a form of aggressive behavior, usually involves students with large physical size, rough-mannered, showing indirect rudeness towards people and having criminal behavior [15].
- c) Emotion
An example of emotional aggressive behavior is excessive anger towards someone that makes the angry person shows unusual attitude. Anger is one of the causes of aggressiveness. If people apologize to each other, then the aggressive behavior will decrease. If people do not want to admit defeat and continue to have conflict, then the level of aggressiveness will increase [16] and [17]. [18] stated that anger is one of the common diseases to every individual. Signs of someone who is angry can be identified through his physical changes such as his face turns red, his body becomes shaky and his behavior becomes unpredictable.
- d) Speech/Verbal
[12] defined verbal aggressive behavior as poor communication using the tongue. They also stated that a person could be thrown into hell due to his tongue. For example, if one uses his tongue to insult, curse, disclose secrets, *etc.* [19] mentioned that females are more often use abusive words than males for the purpose of sarcasm to their friends.
- e) Hostility
Vandalism or ruining school property is the most serious security issue at Sekolah Menengah Daerah Batu Pahat (a high school in Batu Pahat district) based on students' opinion and experience. This act is followed by other hostile aggressive behaviors such as gangsterism, bully, physical violence, verbal threats and being threatened to be hurt while traveling to and from school.

IV. OBJECTIVES

- a. The objective of the study is to determine the validity and reliability of aggressive behavior. The study is also conducted to identify item for the aggressive behavior and the suitability of the item through expert's validation. Another aim is to examine the reliability of research instrument through Alpha Cronbach's coefficient analysis.

V. METHODS

The quasi-experimental method is used and the intervention was applied to identify changes in the dependent variables, which are physical aggression, verbal aggression, emotional aggression and hostile aggression. Another variable examined in this study is the psychological intervention appreciation of Imam Al-Ghazali, which involves a treatment group and a control group. The quasi-experimental method is used in this study because the researchers want to measure the difference between the scores of a pre-test and a post-test for the two groups. The quasi-experimental method is a type of research methods that investigates impacts of a stimulus. The researchers use a stimulus to measure the expected changes. Twenty respondents were chosen in this study, and they were identified as students who have aggressive behavior by the State Education Department officials. The respondents consist of male and female students. They were divided into two groups, namely, the control group and the treatment group in which each group comprises of ten students. In this study, purposive sampling technique was used in which the researchers chose the stratified random sampling technique in the selection of respondents. The selection of respondents was based on the highest mark in the Record of

Misconduct Disciplinary System Students (SSDM) in Pasir Puteh District Education Office. The researchers took these records through the cooperation of the Psychology and Counselling Unit of the State Department Education and the Psychology and Counselling Unit of the District Education Office of Pasir Puteh (PPDPP).

The Record of Misconduct Disciplinary System Students (SSDM) at the PPDPP indicated that there are 105 sixteen-year-old students that show the aggressive behavior at school, which involves physical aggressive behavior, verbal aggressive behavior, emotional aggressive behavior or hostile aggressive behavior. The selection of the respondents at this age is because they are in the category of mid-teens, and do not involved with the important examination at the national level. The respondents were also selected based on their race and religion. In particular, only Malay Muslim students were chosen so that the psychological module with Islamic approach is relevant to the respondents. The researchers asked for help from the school's counselling teacher to distribute the Aggression Questionnaire to students.

VI. CONSTRUCTION OF AGGRESSIVE BEHAVIOUR INSTRUMENT

The Aggression Questionnaire (AQ) was built by [20] of the University of Texas to measure the aggressive behavior of an individual in four aspects, which are physical, speech, emotion and hostility. The researchers used the instrument introduced by [17] and it was slightly altered so that it is relevant to the respondents in this study. The AQ is used in many countries around the world and translated into various languages such as Malay, Chinese, Turkish and Arabic. In this study, the writers chose the AQ that was translated by [21] into Malay, which has been tested and proven to have high reliability in determining the individual's aggressive behavior. This instrument consists of five parts, namely, part A (Personal Information), part B (Questionnaire on Physical), part C (Questionnaire on Speech), part D (Questionnaire on Emotion) and part E (Questionnaire on Hostility). All statements in this questionnaire has a positive value, using a five-point Likert scale as follows:

- 1 = Does not reflect my behavior
- 2 = Rarely reflects my behavior
- 3 = Occasionally reflects my behavior
- 4 = Sometimes reflects my behavior
- 5 = Always reflect my behavior

Part A: Personal Information

All respondents must complete the information required by the researchers only. The researchers will obtain for their full names from the District Education Office of Pasir Puteh.

Part B: Physical Questionnaire

The Aggression Questionnaire (AQ) was divided into four parts, which are physical, verbal, emotion and hostility. Part B consists of nine items where there is a negative item (the sixth item) related to physical behavior as follows:

No.	Statement
1	If I need to use violence to defend my rights, I will use it.
2	I was once being too angry until I bring a damage to some belongings.
3	Sometimes I cannot endure the urge to hit a person.
4	I have threatened people I know.
5	I might hit someone if challenged.
6	I do not have to think any reasonable excuse to hit a person.
7	If someone hit me, I will respond with a hit.
8	There is someone who has hurt me until we had a fight.
9	I was more involved in the fight than others.

Table 1.1 : Physical questionnaire.

The overall score in this questionnaire is 45, and it is divided into three levels as shown in the table below:

Level	Score	Interpretation
High	32 to 45	Extremely aggressive
Intermediate	16 to 31	Moderately aggressive
Low	9 to 15	Rarely aggressive

Table 1.2 : Level score for physical aggressive behaviour.

Part C : Verbal Questionnaire

Part C consists of five positive items related to the verbal behavior as presented in the table below:

No.	Statement
1	If I do not agree with my friends, I will tell them directly.
2	I can not refrain from quarreling when others do not agree with me.
3	If others hurt me, I will speak about my thoughts on them.
4	I often find that I do not agree with others.
5	My friends say that I always have a dispute about something.

Table 1.3 : Verbal questionnaire

The overall score in this questionnaire is 25, and it is divided into three levels as outlined in the table below:

Level	Score	Interpretation
High	18 to 25	Extremely aggressive
Intermediate	14 to 17	Moderately aggressive
Low	5 to 8	Rarely aggressive

Table 1.4 : Level score for verbal aggressive behaviour.

Part D : Emotion Questionnaire

Part D consists of seven items where the second item is associated with negative emotional aggressive behavior as shown below:

No.	Statement
1	Some of my friends think that I am easily angered.
2	I am a calm person and not easily angered.
3	I am easily angered and quickly release the anger.
4	I have a problem in controlling my anger.
5	When I am upset or in a despair, I show my discontent.
6	Sometimes my anger can be released at any time.
7	Sometimes I rage for no reason.

Table 1.5 : Emotion questionnaire

The overall score in this questionnaire is 35, and it is divided into three levels as shown below:

Level	Score	Interpretation
High	24 to 35	Extremely aggressive
Intermediate	12 to 23	Moderately aggressive
Low	7 to 11	Rarely aggressive

Table 1.6 : Level score for emotional aggressive behaviour

Part E : Hostility Questionnaire

Part E consists of eight questions related to the hostile behaviour as presented in the table below:

No.	Statement
1	When people being good with me, I will think what they want from me.
2	Sometimes I wonder why I feel annoyed about certain things.
3	I doubt people who being too friendly.
4	Sometimes I feel very jealous.
5	Sometimes I think that I am always unlucky.
6	Sometimes I feel that there are people who are laughing at me behind my back.
7	Others always seem more fortunate than me.
8	I know that there are friends who talk about me behind my back.

Table 1.7 : Hostile questionnaire

The overall score in this questionnaire is 40, and it is divided into three stages as presented in the table below:

Level	Score	Interpretation
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High	28 to 40	Extremely aggressive
Intermediate	14 to 27	Moderately aggressive
Low	8 to 13	Rarely aggressive

Table 1.8 : Level score for hostile aggressive behaviour.

VII. EXPERT VALIDATION

Expert validation on is conducted to ensure items in the questionnaire represent the listed constructs [22] and [23]. The researchers appointed seven experts in this research field, which concurs with the finding in [24]: five experts are sufficient to validate a research content. The researchers arranged several meetings with all appointed experts to describe the research background, conceptual and operational definitions, and tasks that must be performed. The experts gave ratings, made corrections, wrote comments and suggestions on items that less meet the requirements of constructs. The experts were asked to validate three elements in the questionnaire form, which are

- a) aggressive behavior construct,
- b) items that represent each aggressive behavior construct, and
- c) positive and negative statements.

VIII. PILOT STUDY

The researchers had conducted a pilot study before the actual study began. The aim of the pilot study is to ensure that researchers' questionnaire can be understood by respondents. Besides, it was conducted to determine the validity and reliability of items in the questionnaire. The reliability of a measurement tool refers to the tool used by researchers to construct their theory. The pilot study involved thirty sixteen-year-old respondents in which fifteen males and fifteen females were chosen based on their disciplinary record at a school. The session was jointly handled by the researchers and the school's counseling teacher, and it was conducted at a comfortable place in the school's compound.

IX. RELIABILITY OF AGGRESSIVE BEHAVIOR INSTRUMENT

The researchers use *Cronbach's Alpha* value to investigate the reliability and validity of the research measurement tool for 30 respondents. Analysis of data shows the aggressive behavior based on the scores obtained through the respondents who chose a score of 4 and 5. This indicates that the respondents behave aggressively. One of the findings in this study suggested that the reliability of the measurement tool is .848.

Table 1.9: *Cronbach's Alpha* value for aggressive behaviour.

Dimension	<i>Cronbach's Alpha</i> value
Physical Aggression	.808
Verbal Aggression	.822
Emotional Aggression	.725
Hostile Aggression	.868
Total	.848

Table 1.9 implies that the reliability of the variables assessed to identify the aggressive behavior is high ($\alpha = .848$). The physical aggression ($\alpha = .808$) and the verbal aggression ($\alpha = .822$) recorded the highest value, the emotional aggression ($\alpha = .725$) recorded the least value. Lastly, the hostile aggression ($\alpha = .868$). These values indicate that the reliability of the aggressive behavior measurement tool is high.

X. CONCLUSIONS

b. The aim of this study is to investigate the validity and reliability of aggressive behavior instrument, which was divided into four categories. They are physical aggression, verbal aggression, emotional aggression and hostile aggression. According to [25], the reliability can be measured using *Cronbach's Alpha*, α . The value of $\alpha = .7$ and above is a good value if the instrument has ten or more items, whereas the value of $\alpha = .5$ is considered sufficiently good of the instrument has less than ten items.

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