

# Validity And Reliability Of Adolescent Self-Identity Construction

Meilia Wigati, Fatwa Tentama

**Abstract:** The purpose of this study is to analyze the construct validity and construct reliability of self-identity, and to find the elements and indicators that shape self-identity. Self-identity is measured by two elements, namely the exploration element and the commitment element. The subjects in this study were students of class XII at Muhammadiyah 1 Moyudan Vocational High School as many as 75 students. Data collection methods using self-identity scale. Analysis of research data using the SmartPLS 3.0 program with reflective constructs through the 2nd Order CFA. Based on the results of the analysis of the construct validity and the construct reliability through the outer model, the elements and indicators that make up the identity are valid and reliable. This shows that all components and indicators that exist are able to reflect and shape self-identity. Thus the model can be accepted because the theory that describes self-identity in accordance with empirical data obtained. The dominant element that influences the construction of self-identity is the exploration element.

**Keywords:** Commitment, Construct Validity, Construct Reliability, Exploration, Self-Identity, Students, 2nd Order CFA

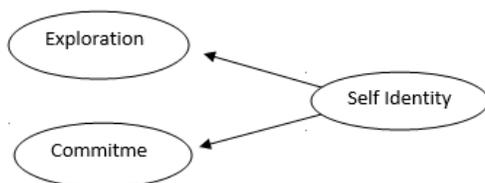
## 1. INTRODUCTION

Adolescence is one of the stages in the life process that is very important in the formation of identity [1]. At this stage adolescents face the main task of finding and affirming their existence and identity, knowing their own strengths and weaknesses, looking for directions and goals, and establishing relationships with people who are considered important. Reimja is a phase of convincing oneself and others that individuals have been able to complete development tasks effectively, prepare themselves before adulthood and set future-oriented goals, adolescents can direct their development and negotiate their journey to adulthood [2], [3]. says stages are stages that are full of challenges, life dynamics, expectations and changes that are fundamental to biological, cognitive and social aspects. Teenagers experience various shocks both psychologically and socially. The shocks make it difficult for adolescents to position themselves and take appropriate roles in various settings of their lives. The question of who I am, where I am, what role I should play, always arises in the minds of teenagers. Not infrequently teenagers become doubtful of their own existence. Therefore, at this time many are referred to as a period of looking for identity or self-identity. Achieving self-identity is one of the important and fundamental tasks in adolescents' lives [4]. Achievement of self-identity if formed properly, individuals will have a picture of themselves who have goals, values, beliefs and commitment to the future [5]. Baumister and Muraven [6] specifically explained that the main purpose of the formation of self-identity is adaptation to the context or situation of individual development, so that individuals are involved in the process of forming identity based on what they think of the context they face. Yoder [7] Explains that the formation of identity depends on the opportunities, expectations and freedoms that individuals have. Individuals must have an awareness that they have the opportunity to explore and evaluate alternative identities [8].

Papalia and Olds [9] state that self-identity is the process of being a unique individual with an important role in life. This means that self-identity is clearly needed so that adolescents have a good understanding of themselves. The negative impact for adolescents who fail to develop their sense of identity is to lose direction, develop deviant behavior (delinquent), commit criminal acts or shut down (isolate) from the community [10]. Another negative effect if self-identity is not well formed is that individuals have a confusion of roles and the inability to choose the best direction of life during his lifetime [11]. Positive impact if adolescents are able to achieve self-identity is teenagers will have confidence in ideological principles, the ability to decide freely how to behave, trust from groups of friends and adults who provide advice on goals and aspirations, and have confidence in choices the job to be desired [12]. Achievement of self-identity illustrates the ability of individuals in self-regulation, while identity disturbances describe the inability to develop self-identification [13]. Self-identity was first spearheaded by Erikson [8], as an identity formation that described the process of adolescent identity formation as ego growth. Then developed by Marcia and colleagues until 1993 [14] by describing four different styles that are used by late teens to identify decisions in doing exploration and commitment. Achievement of identity status according to Marcia is divided into 4 identity statuses. Moratorium Identity that is able to explore and commit. Foreclosure identity is able to commit without exploration. The diffusion identity is without commitment and without exploration and Achievement identity is capable of exploration and commitment [15]. Self-identity is a self-structure consisting of abilities, and internal beliefs that are built from individual experience. So, the more developed the ability or structure of the self, the more visible the uniqueness of the individual compared to other people, the less this ability the more individuals who experience confusion about the uniqueness or uniqueness of themselves so that they will depend on others to evaluate themselves [14]. Self-identity is the organization of drives (drives), abilities (abilities), beliefs (beliefs) into a consistent self-image [16]. Jones [17] said self-identity is something that is complex and constantly changing which is built based on internal feelings of self and external influences. In the last decade, studies on self-identity show that self-identity can affect work, beliefs, ideology and personal

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relationships so that it will improve positive self-image [18]. Exploration identity influences individuals in being positive to be themselves, how individuals perceive life and how individuals build friendships [19]. Gossens [20] also said that the formation of self-identity is influenced by relationships established with parents, peers and the role of individuals in organizations. Morsünbül and Atak [21] in their study with the title Validity and Reliability Study of the Turkish Version of the Ego Identity Process Questionnaire with a scale from Balisteri et al [22], consisting of instruments of exploration and commitment. The study obtained the results of the Cronbach coefficient reliability of 0.85 for commitment and 0.82 for exploration. Convergent validity is seen in the correlation of exploration and commitment with self-esteem. The analysis used to test items is factor analysis. The difference with this research is that this research uses Structural Equation Modeling (SEM) SmartPLS 3.2.8. The research of Abraham, Utami and Fazal [23] using a scale of self-identity based on the theory of Marcia [14]. The measurement instrument for exploratory ego identity obtains an internal result of the Cronbach  $\alpha$  consistency index equal to 0.672 with the corrected item-total correlation of 0.506. Which means the instrument is reliable ( $\alpha > 0.6$ ) and the items are valid ( $rit > 0.25$ ). Commitment instruments show Cronbach's internal consistency index  $\alpha$  equal to 0.856 with the number of items corrected for correlations ranging from 0.375 to 0.680 which means the instrument is reliable ( $\alpha > 0.6$ ) and the items are valid ( $rit > 0.25$ ). The analysis used uses RISLEL 8.0 to test the field data while the item test uses SPSS 21 analysis. Self-identity is an abstract variable to be measured, therefore we need a measuring tool that can reveal self-identity to individuals. One tool that can be used to reveal self-identity is the scale of self-identity, in composing a scale of self-identity can refer to the element of self-identity formation consisting of elements of exploration and commitment elements [14]. The element of exploration is a period when adolescents try to find and find various information that is useful for the formation of their identity. This element consists of indicators of mastery of knowledge, activities aimed at finding information, considering alternative elements of existing identity, emotional atmosphere and the desire to make decisions early. The commitment element refers to the effort to make relatively firm choices about the identity element and to involve activities directed at the exercise of its choices. The element of commitment consists of indicators of mastery of knowledge, activities directed to carry out the chosen element of identity, emotional atmosphere, recognition of others deemed appropriate, projecting oneself in the future and resistance to shocks that occur. Conceptual framework based on the two elements can be seen in the figure 1.



**Figure 1.** Conceptual framework of Self Identity variables

**Based on Figure 1, the research hypothesis is arranged as follows:**

H: The element of self-identity, namely exploration and commitment, is able to form the construct of self-identity. Based on the description above it can be concluded that self-identity is very important in adolescents. Increasing the importance of self-identity, the formulation of the problem in this study are: 1) Is the construct of self-identity valid and reliable? 2) Do the elements of exploration and commitment form the construct of self-identity? One approach used in testing the construction of a measuring instrument is confirmatory factor Analysis. Confirmatory factor Analysis (CFA) is one of the main approaches in factor analysis. CFA can be used to test the dimensionality of a construct. This test is used for measurement models (Measurement models). So that it can describe the elements and indicators of behavior in reflecting latent variables, namely self-identity. By looking at the loading factor of each aspect that forms a construct. Conformatory Factor Analysis (CFA) is also used to test the validity of the construct and the reliability of the constructs of the constructing indicators [24]. The CFA used in this study is the second order confirmatory factor analysis (2nd order CFA), a measurement model that consists of two levels. The first level of analysis is carried out from the latent construct of the element to its indicators and the second analysis is carried out from the latent construct to the element construct [24]. Based on the description above, this study aims to test the validity of the construct and the reliability of the construct of self-identity from the point of view of the state and culture from the point of view of the state and culture that is different from the previous research.

## 2 RESEARCH METHOD

### 2.1 Participan

The research subjects were students of class XII at Muhammadiyah Vocational High School 1 Moyudan Yogyakarta as many as 75 students. Subjects aged 15-18 years and willing to be participants in the study.

### 2.2 Instrumen

Data collection method used in this study is the scale of self-identity, which is compiled based on elements of self-identity according to Marcia [14] consisting of elements of exploration and commitment. The scale is composed with two forms of statement, namely supporting (favorable) and statement not supporting (unfavorable). The following are examples of self-identity from the exploration element, "I don't need to know the ideals that I dream of in the future" and "To determine the choice of the field that I aspire to, no need to use some consideration". While the example of self-identity from the commitment element is "In my opinion there is no need to work hard to achieve what is aspired and" The ideals that I want actually have not appeared about a year ago ".Data collection methods use scale. the scale used in this study is a Likert scale with each scale having four alternative answers divided into favorable statements and unfavourabe statements with ratings using four categories of answers. Scoring can be seen in Table.1.

**TABLE 1.**  
**SELF-IDENTITY SCALE SCORING**

Answer Category	Favourable	Unfavourable
Very Appropriate (SS)	4	1
Appropriate (S)	3	2
Not Appropriate (TS)	2	3
Totally Not Appropriate (STS)	1	4

The author uses the number of items on a scale Self-identity totaling 40 items consisting of 20 favorite items and 20 unfavorable items. Here is the blueprint of Self Identity.

**TABLE 2.**  
**BLUEPRINT OF SELF IDENTITY**

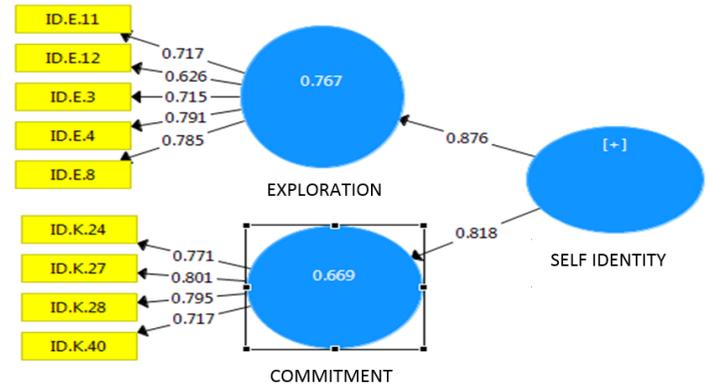
Element	Indicator	Item	
		Favo	Unfavo
Exploration	Mastery of knowledge, Activities directed at seeking knowledge, Consider alternative elements of existing identity, Emotional atmosphere, The desire to make an immediate decision	1,2, 5,6,	3,4, 7,8,
		9,10,	11,12,
		13,14,	15,16,
		17,18,	19,20
Commitment	Mastery of knowledge, Activities directed at carrying out the chosen identity elements, Emotional atmosphere, Introduction to others who are considered appropriate, Project yourself in the future, I am resistant to shocks that occur-outside of work	25,26,	27,28,
		29,30,	31,32,
		33,34,	35,36, 38
		37	40
	Item Amount	20	20

**2.3 Validity and Reliability**

This research was conducted to test the validity and reliability using the SmartPLS 3.0 program with reflective constructs. which has the aim to test the measurement model which consists of validity tests including convergent validity (seen from the loading factor > 0.5 and extracted > 0.5). Discriminant validity the ratio of the average variance extranced roots to the eleman must be higher than the relationship of the other elements. Next is the reliability test with the aim of showing internal consistency in the measuring instrument used. The trick is to look at the value of composite reliability and Cronbach's alpha which according to Cooper The value that must be owned is > 0.7 [25].

**3 RESULT**

Based on the test results of the outer identity model obtained the following results:



**Figure 2.** Test results for the outer construct model of Self Identity

**3.1 Convergent Validity**

Based on the convergent validity value shows that the loading factor has fulfilled the requirements > 0.5 can be seen from the picture loading factor between the variables as follows:

**TABLE 3.**  
**LOADING FACTOR (VARIABLE-ELEMENT)**

Element	Loading Factor	Information
Exploration	0.876	Valid
Commitment	0.818	Valid

Convergent validity values that the loading factor has met the requirements > 0.5 can be seen from the picture loading factor between elements-Indicator as follows: Table 4.

**TABLE 4.**  
**LOADING FACTOR (ELEMENT -INDICATOR)**

Item	Loading Factor	Information
ID.E.3	0.715	Valid
ID.E.4	0.791	Valid
ID.E.8	0.785	Valid
ID.E.11	0.717	Valid
ID.E.12	0.626	Valid
ID.K.24	0.771	Valid
ID.K.27	0.801	Valid
ID.K.28	0.795	Valid
ID.K.40	0.717	Valid

Based on the next convergent validity value, that is, the average variance extrance (AVE) construct of self-identity with a value of 0.550 and the elements' values also meet the value > 0.5. The following is the result of the Average Variance Extranced (AVE) value:

**TABLE 4.**  
**NAVERAGE VARIANCE EXTRACTED (AVE)  
VALUE OF SELF-IDENTITY CONSTRUCTION**

Element	AVE value	Information
Exploration	0.767	Valid
Commitment	0.669	Valid

Exploration	0.532	Valid
Commitment	0.516	Valid

### 3.2 Discriminant Validity

Based on the discriminant validity test has been fulfilled by comparing between elements have met the requirement that the AVE root value between elements must be higher than the AVE root value of the element with other elements. Then it can be seen with the table as follows:

**TABLE 5.**  
*AVERAGE VARIANCE EXTRACTED (AVE)  
CONSTRUCTION OF SELF IDENTITY*

Element	Exploration	Commitment
Exploration	0.729	0.727
Commitment	0.727	0.772

### 3.3 Construction Reliability Test

Reliability test seen in the table composite reliability and Cronbach alpha values have fulfilled the requirements > 0.7. can be seen in the following table:

**TABLE 6.**  
*THE VALUE OF COMPOSITE RELIABILITY AND CRONBACH'S ALPHA  
CONSTRUCT SELF-IDENTITY*

Variable	Composite Reliability	Cronbach's alpha	Information
Self-Identity	0.830	0.729	Reliable

The results of construct reliability testing with the confirmatory analysis 2nd order in Table 6 above show that constructs have good reliability and give meaning that the elements that measure the construct / latent variables of self-identity meet the unidimensional criteria 0.830 and Cronbach's Alpha 0.729. The validity and reliability test of the construct produced valid and reliable items that were able to reflect the elements of self-identity, namely the items in numbers 3, 4, 8, 11, 12, 24, 27, 28, and 40, while the items that were unable to reflect on self-identity, that is, items in numbers 1, 2, 5, 6, 7, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 15, 26, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38 and 39. Based on the management and analysis of research data based on the processing and analysis of research data on the elements of the variable / construct identity formed by using Confirmatory Factor Analysis 2nd Order, the results show that the model can be accepted, because all elements are able to reflect the variables / constructs formed.

## 4 DISCUSSION

Based on the results of the analysis of contract validity and contract reliability it is seen that all elements of adolescent self-identity are declared valid and reliable with an exploration factor loading factor of 0.876. The most dominant element is the exploration element which is shown by the ability to master knowledge and consider alternative elements of identity. The main items include not needing to know the ideals of the future, no need to study hard to get achievements and achieve

goals, and do not need to do much consideration for the field of dreams. The lowest element that reflects self-identity is the element of commitment with a loading factor of 0.818. This element is described by activities directed to carry out the chosen identity element. The main items include lazy trying to achieve the ideals of the dream, no need to work hard to achieve what is aspired. Seabi's research [26] uses identity processing styles using Berzonky's [27] theory. The identity processing style consists of information, normative and avoidant identity processing styles by linking identity commitments. These results in measuring the strength of commitment to identity that refers to beliefs, values and goals obtain alpha cronbach coefficient of 0.44 so it is said to be valid. While the research conducted by researchers uses two elements including exploration and commitment with a Cronbach alpha value of 0.729. Balistreri, Busch-Rossnagel and Geisinger [22] research and Abraham, Utami and Fazal [23] research found that these studies used the same measurement as my research, namely using the EIPQ measuring instrument which found that the measuring instrument was valid so can be used as a good measurement tool for research and also the domain used as a measurement tool in this study is also the same as research according to the experts above. Research Results The results of this study are expected to provide a picture of the validity and reliability of the construct of self-identity in the context of adolescents as a reference in subsequent studies related to self-identity.

## 5 CONCLUSION

The construct of self-identity fulfills good validity and reliability, all elements and Indicators can significantly form a variable of self-identity, where the Indicator has a dominant influence on self-identity is exploration with a loading factor of 87.6%, thus the findings of this study can provide theoretical implications. in the development of self-identity and the practical implications of taking the future direction of adolescents, can test the model of self-identity in relation to other variables, expand research units or use different self-identity contexts so that research results can be generalized.

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