

Resilience Modeling in Indonesian Adolescents: Associated with Quality of Life and Self-Esteem

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Abstract-Problems of adolescents in Indonesia concentrate on the dynamics of adolescent self-development and influencing environmental factors and both of these affect each other. Based on the results of the resilience study on the basis of the risk factors that influence adolescent China Benteng in Tangerang, then the research was expanded to target youth in Indonesia. The aim of the study was to obtain a model of adolescent resilience towards quality of life and influenced by self-esteem. The model tested can then be used to intervene on adolescents who have problems. The study sample was 567 people, consisting of 179 junior high school students in Jakarta, 217 high school students in Jakarta, Purwokerto, Bojonegoro and College in first semester as many as 167 people. Model testing using SEM (Structural Equation Modeling) is processed with the Lisrel 8.80 program. The design of the model consists of Direct Model, Generic Model, Mediating Model and Moderating Model. The conclusion of the model test results shows that the teenagers of College in first semester have direct models, mediating models and moderating models; adolescent junior high school has a generic model and high school adolescents do not have a model because empirical samples have not supported the theory being built.

Keywords: resilience, quality of life, self-esteem, adolescent, modelling

I. INTRODUCTION

In general, the problem of adolescence in Indonesia concerns the dynamics of adolescent self-development and environmental factors. In 2016, according to UNICEF, it was estimated that violence against fellow teenagers in Indonesia was estimated at 50 percent. While data from the Indonesian Ministry of Health in 2017 said 3.8 percent of students and students had misused drug and dangerous drugs. The phenomenon of juvenile delinquency can no longer be overcome in the usual way. Because they have committed a crime outside of a teenager's reason. For example, in Cikarang Barat, teenagers hack their victims just because they want to be called brave in front of their

friends. In Yogyakarta the phenomenon of clairvoyance (klitih), criminals carrying various sharp weapons such as sickles, swords and knives attacked random victims while walking at night in a quiet place and it turned out that these perpetrators were actually, on average teenagers aged 13-18 years. The attack on residents in Sukabumi, West Java by a motorized group and turned out to be chaired by a 16-year-old child and still a high school student .[1]

There are a number of factors that trigger juvenile delinquency. Among other things, first, family dysfunction, especially lack of love, religious, moral and social education from parents to children. Family is the main factor forming a child's character. If parents do not give good attention and role models, children will look for identity outside the home. As a result they do not care whether the actions they do are good or bad.

Second, the community's permissive attitude towards the phenomenon of juvenile delinquency, including the school environment. The indifferent attitude of the community creates the growth of adolescents who ultimately lack respect for the environment. In turn the communication system in the community is not going well. These phenomena are environmental factors which then lead to various juvenile delinquency problems. In the opinion of researchers, the main factor that can be immediately overcome from adolescent personality actors. Teenagers who are able to know themselves well are expected to be able to overcome environmental factors.

The initial study of adolescent resilience research began in 2016 [2] in teenage China Benteng in Tangerang, West Java. In Benteng China adolescents, we studied 7 aspects faced by adolescents, namely (1) natural disasters / floods, (2) free sex relationships, (3) drug abuse, (4) bullying, (5) traffic jams, (6) logging (7) negative information from social media. Then a factor analysis was carried out and 3 factors were obtained as traits that caused adolescents to survive or rise from adversity, namely alertness, forward thinking and selfpreparation [3]. Thus, the definition of resilience in this study is

adolescents who are able to deal with risks in their environment by always being introspective, having goals and understanding their abilities and environment. Resilience generally leads to a pattern of positive adaptation during or after facing difficulties or risks [4] Affirmed by Fernanda Rojas [5] resilience as the ability to face challenges and arise when adolescents face difficult experiences and are able to deal with them or adapt.

Teenagers who have good resilience are expected to improve their quality of life. Somrongthong, Laosee, Wongchalee [6] found that 34.9% of teenagers living in slums in Bangkok showed symptoms of depression and 26% of depressed teens had poor quality of life. According to Lawford & Eiser [7], one of the factors that distinguishes a person's quality of life in the same situation is how to cope or coping when experiencing difficulties. This situation is in accordance with the opinion of Herrman, Stewart, Diaz-Granados, Berger, Jackson and Yuen [8] saying that sources of resilience include personality factors consisting of personality characteristics, self-efficacy, self-esteem, internal locus of control, optimism, intellectual capacity, positive self-concept, demographic factors (age, sex, ethnicity), hope, toughness, emotional regulation. On the basis of the theoretical study above, the aim of the research is to look for modeling resilience if it is associated with quality of life that is influenced by self-esteem. This modeling really needs to be studied considering that adolescents have unique characteristics in each age range.

Sanrock [9] defines adolescence as a period of developmental transition between childhood and adulthood which includes biological, cognitive, and social-emotional changes. Adolescent age limits are commonly used by experts between 12 and 21 years. The age range of adolescence is usually divided into three, namely early adolescence, 12 to 15 years; middle adolescence, 15 to 18 years; late adolescence, 18 to 21 years. This definition explains that adolescence is a transition period from childhood to adulthood with an age range between 12-21 years, during which the maturation process occurs both physical and psychological maturation. On the basis of different mean testing on 7 risk factors for resilience there were significant differences between adolescent junior high school ranged in age from 13 to 15 years, high school adolescents ranging in age from 16 to 18 years and adolescents from tertiary institutions in semester I, ages 19 to 21 years [3] Thus this study will use modeling resilience in adolescent junior high school, high school adolescents and adolescents in semester 1. This modeling is carried out in order to produce a model that is

appropriate at stage of adolescent development so that the intervention undertaken is expected to be appropriate and on target.

II. RESEARCHMETHOD

Modeling uses 4 model designs, namely model 1: direct model which is resilience related to quality of life; model 2: generic models namely resilience together self-esteem related to quality of life; model 3: mediating model namely resilience related to quality of life with self-esteem as a mediator; model 4: moderating model namely as a moderator. The four models of this model were tested using models in junior high school, high school and college in semester 1.

A. Participants

The characteristics of participants were adolescents who were still attending junior high school and high school in the first semester. The number of participants was 567 people consisting of adolescents junior high school 179 students, high school 221 students and adolescents in the first semester of college as many as 167 students.

B. Measure

Resilience instruments made and tested [3] produce 3 dimensions of traits, namely Forward Thinking, Self-Preparation and Being Alert with a total of 16 items. The WHOQoL instrument consists of 25 items, namely physical, psychological, social and environmental dimensions. Coopersmith Self-Esteem Inventory Short Form-25 items consist of 3 dimensions, namely Global Self-Esteem, Relationship with parents, Relationships with peers with a total of 20 items. These three measuring instruments are measured measurement models with the results of instrument resilience getting 16 valid items (P-value > 0.05); quality of life instruments with 16 items valid (P-value > 0.05) and self-esteem instruments get 15 items valid (P-value > 0.05). Data processing uses Structural Equation Modeling (SEM) with the Lisrel 8.80 program

Table 1: Valid Item on the measure of Self-Esteem, Quality of Life and Resilience with CFA testing

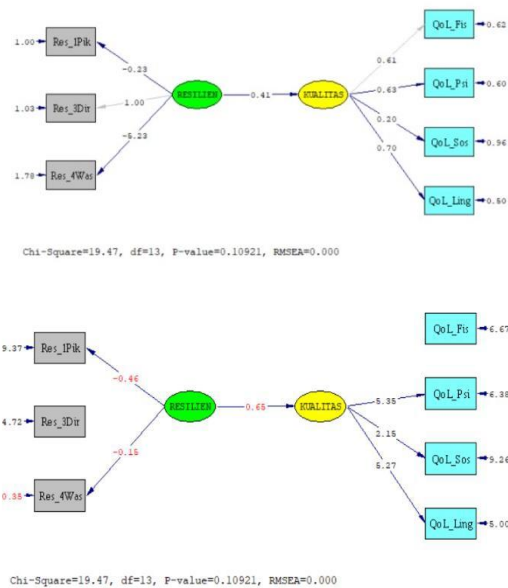
Instrument	Dimension	Number of items	Number of valid items
Resilience /Resiliensi	Forward Thinking	7	7
	Self Preparation	4	4
	Being Alert	5	5
Quality of Life/ Kualitas Hidup	Psychology	8	4
	Social	3	3
	Environment	6	5
Self-esteem/ Harga Diri	Global	15	7
	Peer group	5	4
	Parent	5	4

III. RESULT

A. Model 1. Direct Model

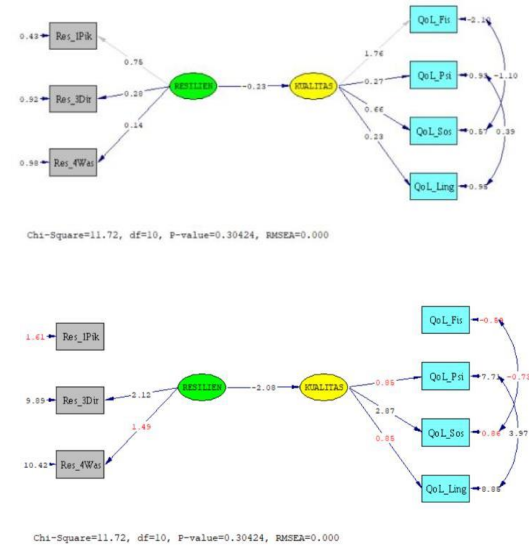
Junior high school. At $\chi^2 = 19.47$, P-value = 0.10921, RMSEA = 0,000 is a fit model. The relationship between resilience and quality of life of positive but non-significant relationship (sig. <1.96).

Figure 1: Model 1 of Loading Factor and t-value in Junior High School



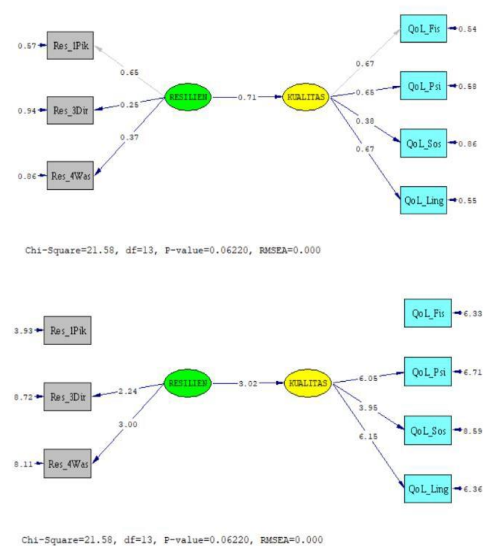
High school. At $\chi^2 = 11.72$, P-value = 0.30424, RMSEA = 0,000 is a fit model.

The relationship between resilience and quality of life of negative and significant (sig. <1.96) Figure 2: Model 1 of Loading Factor and t-value in High School



First semester of college. At $\chi^2 = 21.58$, P-value = 0.06220, RMSEA = 0,000 is a fit model. The relationship between resilience and quality of life of positive and significant (sig. <1.96).

Figure 3: Model 1 of Loading Factor and t-value in College



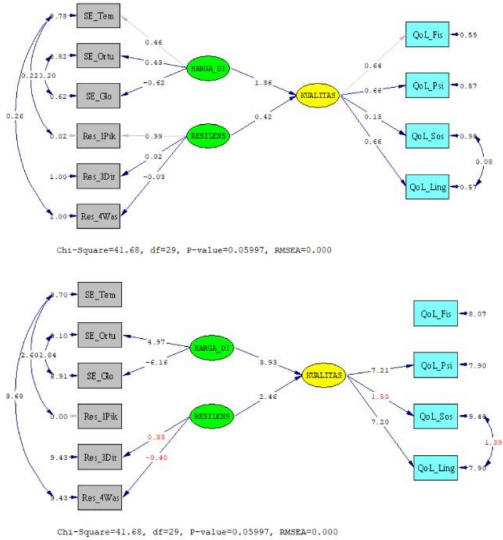
Thus, in model 1, modelling the direct relationship between resilience and quality of life only in the first semester of college that meets the

requirements is positively and significantly related.

B. B. Model 2. Generic Model

Junior high school. At $\chi^2 = 41.68$, P-value = 0.05997, RMSEA = 0,000 is a fit model. The relationship is a positive and significant (sig. <1.96) between resilience and self-esteem to quality of life.

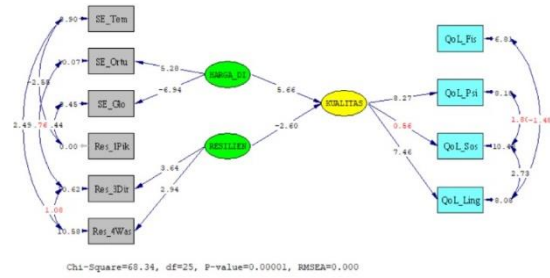
Figure 4: Model 2 of Loading Factor and t-value in Junior High School



High school. At $\chi^2 = 68.34$, P-value = 0.00001, RMSEA = 0,000 is not fit models. This means that empirical data does not support the theory being built. In the relationship between resilience and self-esteem towards quality of life that only self-esteem is positively and significantly related. While resilience is negatively and significantly related.

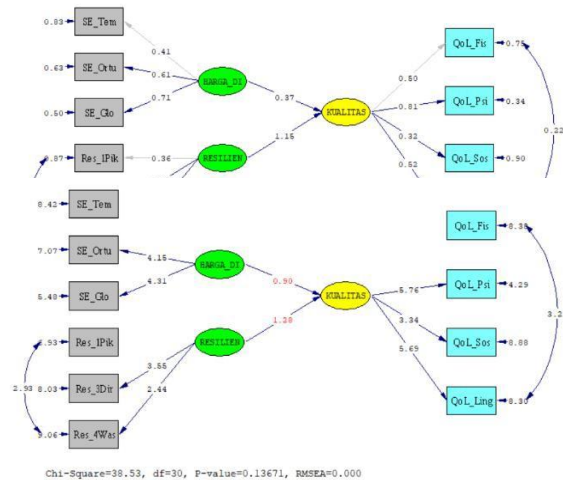
Thus, in model 2, modelling the relationship resilience and self-esteem to quality of life only in the junior high school that meets the

Figure 5: Model 2 of Loading Factor and t-value in High School



First semester of college. At $\chi^2 = 38.53$, P-value = 0.13671, RMSEA = 0,000 is a fit model. The relationship between resilience and self-esteem to quality of life is positively related but not significant

Figure 6: Model 2 of Loading Factor and t-value in College

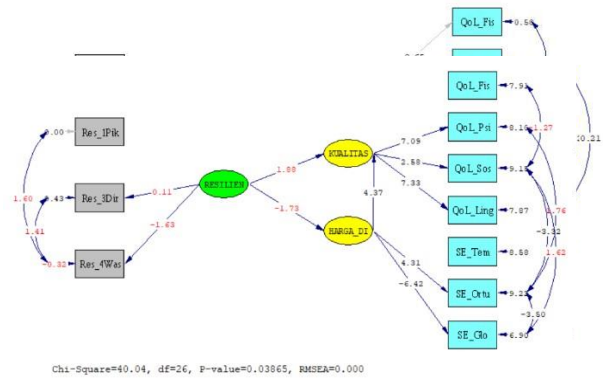


requirements is positively and significantly related.

C. Model 3. Mediating Model

Junior high school. At $\chi^2 = 40.04$, P-value = 0.03865, RMSEA = 0,000 is not fit models. This means that empirical data does not support the theory being built. In the relationship between resilience and self-esteem towards quality of life that only self-esteem is positively and significantly related. While resilience is negatively and significantly related. The relationship between resilience to quality of life mediated by self-esteem shows a relationship of resilience to positive quality of life but to mediator negative self-esteem and not significant. While the relationship of self-esteem as a moderator for positive and significant quality of life.

Figure 7: Model 3 of Loading Factor and t-value in Junior High School



First semester of college. At $\chi^2 = 40.81$, P-value = 0.09004, RMSEA = 0,000 is fit models. Between resilience to quality of life both directly and through mediators proved to be positively and significantly related (Sig.> 1.96) except the relationship of self-esteem to quality of life that was not significant.

High school. At $\chi^2 = 53.49$, P-value = 0.00004, RMSEA = 0,000 is not fit models. This means that empirical data does not support the theory being built. In the relationship of resilience and quality of life mediated by self-esteem, it turns out that resilience is negatively related to quality of life and self-esteem. While self-esteem to quality of life is positively related but not significant.

Figure 8: Model 3 of Loading Factor and t-value in High School

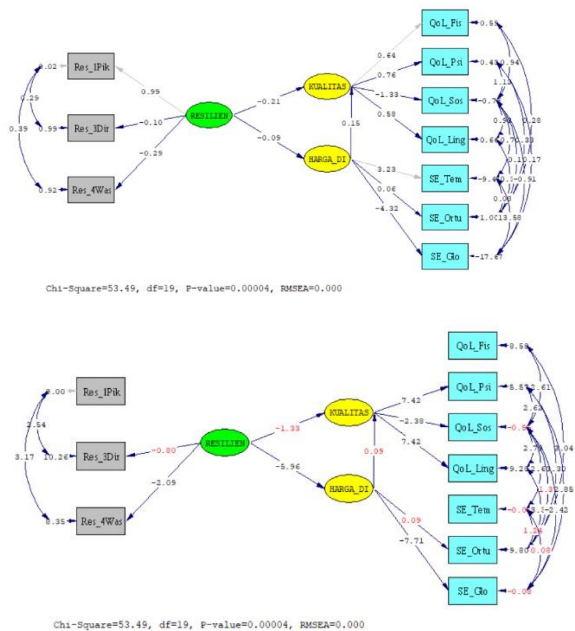
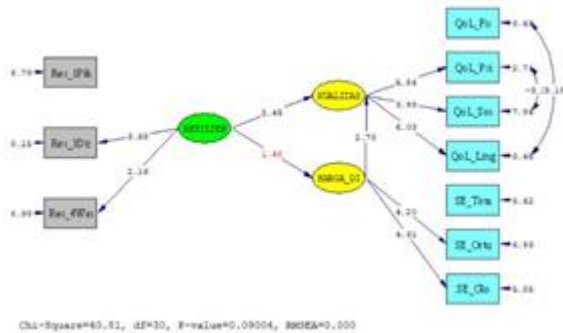
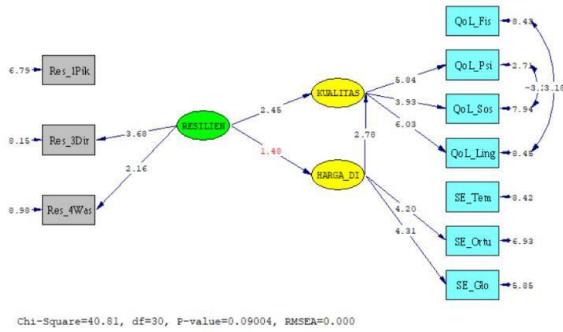


Figure 9: Model 3 of Loading factor and t-value in college



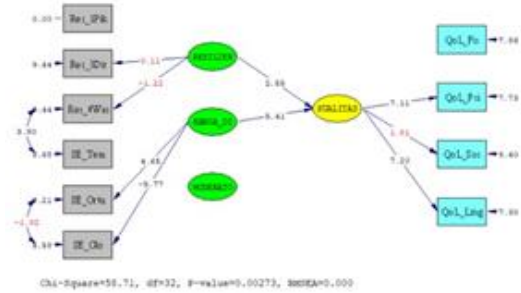
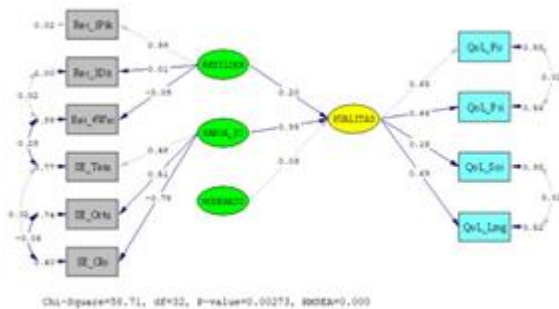
So, in model 3, modelling the relationship of resilience to quality of life is mediated by the closest approach to adolescence in teenagers in 1st semester. However, it should be noted that the relationship resilience to self esteem is still not significant.

D. Model 4. Moderating Model

Junior high school

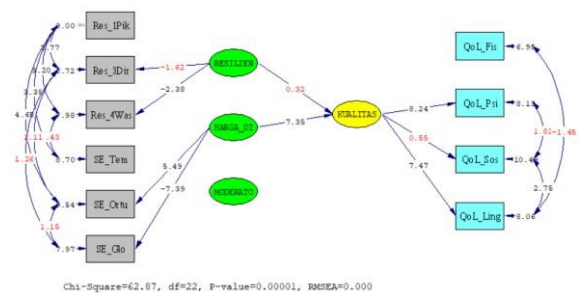
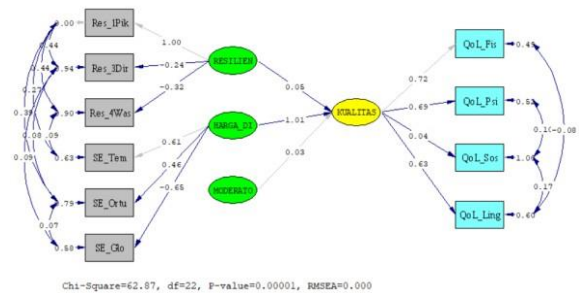
At $\chi^2 = 58.91$, P-value = 0.00273, RMSEA = 0,000 is not fit models. This means that empirical data does not support the theory being built.

Figure 10: Model 4 of Loading Factor and t-value in Junior High School



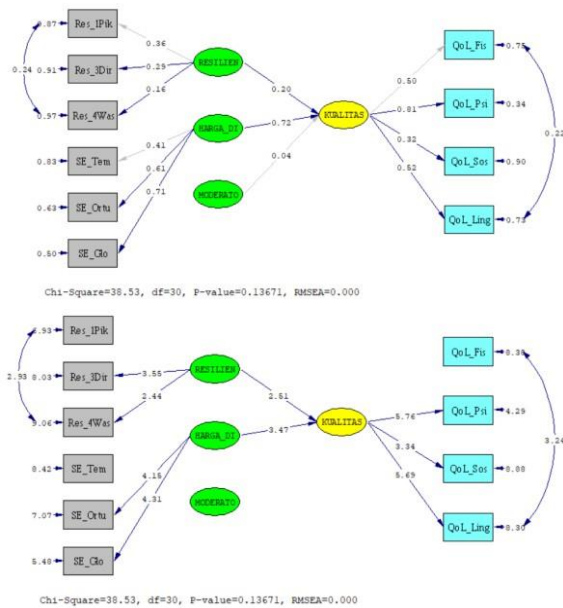
High school. At $\chi^2 = 62.87$, P-value = 0.00001, RMSEA = 0,000 is not fit models. This means that empirical data does not support the theory being built. The test results show the need to consider self-esteem in the relationship of resilience to quality of life. There is no significant relationship between resilience and self-esteem.

Figure 11: Model 4 of Loading Factor and t-value in High School



First semester of college. At $\chi^2 = 38.53$, P-value = 0.13671, RMSEA = 0,000 is fit models. This means that empirical data support the theory being built. The test results show the need to consider self-esteem in the relationship of resilience to quality of life. There is a positive and significant relationship between resilience and self-esteem.

Figure 12: Model 4 of Loading Factor and t-value in College



Thus, in model 4, self-esteem as moderator shows modeling suitable for adolescents in semester 1 in college. Whereas in junior high school adolescents need proof with a more diverse sample.

IV. CONCLUSIONS

Modelling the direct relationship between resilience and quality of life only in the first semester of college that meets the requirements is positively and significantly related. Modelling the relationship resilience and self-esteem to quality of life only in the junior high school that meets the requirements is positively and significantly related. Modelling the relationship of resilience to quality of life is mediated by the closest approach to adolescence in teenagers in 1st semester. Self-esteem as moderator shows modeling suitable for adolescents in semester 1 in college.

A. Discussion

The conclusion shows that there are different models of resilience towards the quality of life of adolescents. This difference is closely related to the phase of adolescence, namely early adolescents, middle teens and late adolescents. Each of these phases reflects the maturity of different adolescents [9]. Therefore adolescents in semester 1 in Higher Education with maturity that are better than teenagers below them, have the

ability to manage the province well too. In the direct model (without the influence of self-esteem) there is a strong influence of resilience on the quality of life. Especially if supported by strong self-esteem (acting as a moderator) will strengthen the quality of life of these late teens.

In junior high school students, we still need self-esteem together with resilience to be able to correlate strongly with quality of life. It's not enough to just resilience but need to be together with self-esteem. That is, the maturity of adolescence is immature so strong self-esteem is needed.

In high school students there is no clear model. Perhaps this is related to sampling in Jakarta and in the regions. The results of previous studies on testing mean differences proved significantly different [10]. Therefore there is no specific modeling pattern found.

B. Suggestion

Research on resilience is related to local culture, preferably sample setting is considered on the basis of local culture. Large cities become one sample group and small cities into one different group. Samples can also be made based on local tribes based on the location of the school.

Adolescent modeling on the basis of adolescent resilience ability should be carried out for all regions of Indonesia with various tribes. The model obtained can be a guideline for typical interventions.

Related to the age phase of adolescence, it is best to research adolescents based on the phases of age. If it is made one from the age of 12 to 21 years, it is difficult to obtain a reliable model.

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