

5Cs of Positive Youth Development as A Measuring Instrument for Adolescent Resiliency in Bogor

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Abstract – This study has attempted to analyze the Positive Youth Development (PYD) perspectives as a measuring instrument for adolescent. It is unusual to use PYD to measure resilience but due to its similarity in ground theories and point of measurement. 324 adolescences from 12 Senior High School both General and Vocational from Bogor were analyzed using questionnaire of quantitative study. This study has shown that there is no difference between boys and girls, student from General High School and Vocational High School, and the breadth of school-based extracurricular activities. Closer examination of the results show reveals that there is a slight difference in sport, outdoor activities and respect to teacher between boys and girls, the connection to people in community for Vocational High School Student, and the outdoor activities score of student with different breadth. In general, PYD can be used for measurement of resilience.

Keywords – Adolescence, Extracurricular, High School, 5Cs PYD, Resilience

I. INTRODUCTION

Resilience in adolescents is a concept related to Positive Youth Development (PYD). As stated [1] as being similar in developmental science clusters, but has a different scope. He further states that resilience has different ranges while PYD has a narrower range because it is limited to school age adolescents only.

Many studies showed that PYD are parallel to resilience. For example, research conducted by [2] states that PYD and the perspective of resilience as a preventive factor can collaborate positively with each other in making programs for adolescents. [3] found the same thing from the qualitative research, while [4] also found it in the context of adolescent maltreatment.

Slightly different from research that puts PYD and resilience in an equal position, [5] places PYD as the cause of increased resilience in adolescents in his research. On the other hand, [6] places resilience and resistance together with the basic model of PYD as a model of critical awareness among youth colored-women in the United States.

PYD research was conducted using measurements that focused on 5Cs, namely competence, self-confidence, character, caring, and connections. The 5Cs measurement usually uses a questionnaire measuring tool with questions that measure the amount of each

C as done by [7]–[10]. Meanwhile, research on resilience uses measuring tools regarding internal protective factors (similar to competence in PYD), family, school, community, and friends (similar to the environment in PYD) as conducted by [11] in India and [12] in Iran. These various studies provide an understanding that PYD and resilience have basic theoretical similarities, namely developmental theory, as well as similarities in measurement items.

In the context of research on resilience conducted in Indonesia, especially in Bogor, West Java, [13] found that the resilience value of Vocational High School (SMK) students was higher than Senior High School (SMA) students, and there was no real difference in the resilience scores of male and female students even though they had differences in several real characters. [14] found that differences in activity affect the resilience value of adolescents. The two studies provide an understanding that the value of resilience varies, and this should also be seen from the view of PYD.

This study aims to analyze differences in resilience based on competence, self-confidence, character, caring, and connection among high school aged XI-XII students based on gender and school type. In addition, to explore differences in activities and their effect on resilience, students were analyzed based on the number of extracurricular school program activities that were attended by students. Previous study showed that extracurricular activities foster student character [15].

II. RESEARCH METHOD

The study was conducted using a quantitative and *cross-sectional* approach in 12 public and private high schools (SMA) and 3 vocational high schools (SMK) in the city of Bogor. Samples were taken *purposively* from schools that have extracurricular activity programs for students who meet the criteria for joining the extracurricular program and have academic achievement at school.

Primary data were obtained from self-answered questionnaires filled out by respondents, with a score of 1 (lowest) to 4 (highest) for each question. The questionnaire consisted of student characteristics variables (school, gender, class, number of extracurricular types that were followed), as well as the 5Cs level of PYD. The questionnaire was modified by researchers based on a *Questionnaire of the Chinese Positive Youth Development Scale* (References 7), *Short and Very Short Measures of the Five Cs of PYD* [16], and *The Bridge-Positive Youth Development* [17].

Competence variable consists of three sub variable as follows. Academic competence consists of 8 questions with an alpha value of 0.691. Social competence consists of 6 questions with an alpha value of 0.763. Physical competence consists of 4 questions with an alpha value of 0.836.

Confidence variable consists of three sub variable. Self-esteem which consists of 3 questions with an alpha value of 0.318. Positive identity which consists of 8 questions with an alpha value of 0.688. Self-performance which consists of 4 questions with an alpha value of 0.684.

Character variable consists of three sub variable. Morality sub variable consists of 4 questions with an alpha value of 0.813. Integrity sub variable consists of 7 questions with an alpha value of 0.711. Honored the differences sub variable consists of 5 questions with an alpha value of 0.763.

Care variable has no sub variable which consists of 4 questions about respondent's sympathy with an alpha value of 0.688. Connection variable consists of four sub variable. Connection with parents consisted of 4 questions with an alpha value of 0.796. Connection with the teacher consists of 3 questions with an alpha value of 0.746. Connection with friends consists of 4 questions with an alpha value of 0.847. Connection with the community consists of 3 questions with an alpha value of 0.838.

Data were analyzed descriptively and inferential. Descriptive data is used to provide a description of the respondents which includes the distribution of frequency, minimum, maximum, average, and standard deviation value. Inferential analysis consists of t-test and anova. The t-test was used to see the difference in the 5Cs of PYD score based on gender and school type, while the anova test was used to see the difference in the 5Cs of PYD score based on the difference in the number of extracurricular followed.

III. RESULT AND DISCUSSION

Student Characteristics

There were 324 students in this study, consists of 150 boys and 174 girls from class XI 176 people and class XII 148 people. The types of schools that d were divided into two types, namely SMA with 200 people and SMK with 124 people. In general, it can be

said that the number of male and female respondents is not much different about 13%, the difference in the number of respondents in class XI and class XII is also not much different in the range of 15%. Meanwhile, the difference between the number of high school and vocational high school students in this study differed greatly at 38%.

The number of extracurricular types that were followed was differentiated based on the five types of extracurricular activities (sports, arts, religion, academics, and student organizations). However, data on the number of extracurricular types was only available for 318 respondents with detailed data as shown in Table 1.

Table 1 Characteristics of SMA/SMK students in Bogor City based on the number of extracurricular

Type of Extracurricular	Number of Extracurricular	Percentage
1 type	153	48.1
2 types	119	37.4
3 types	36	11.3
4-5 types	10	3,1
TOTAL	318	100

Based on Table 1, it can be understood that almost half of the respondents only attended one kind of extracurricular activity at school, and the more extracurricular activities followed, the less the number of respondents who took it. It can be said that the relationship between the number of extracurricular activities followed by the number of respondents who participated is inversely related.

Differences in the 5Cs of PYD level based on gender, school type, and number of extracurricular types

The distribution of the 5Cs level of PYD and the different test results according to gender, school type, and the number of extracurricular types are presented in Table 2.

Table 2 Distribution of 5Cs of PYD levels and different test results based on sex, type of school, and number of extracurricular types attended by high school/vocational school students in the city of Bogor

Variable and Sub Variable	Sex			School Type			Number of Extracurricular Type				
	Girl	Boy	Sig	SMA	SMK	Sig	1	2	3	4-5	Sig
Competence	54.18	55.72	0.022*	54.75	55.14	0.568	54.37	55.55	54.26	58.67	0.086
Academic	23.40	23.65	0.474	23.46	23.60	0.682	23.32	23.89	23.06	23.67	0.379
Social	19.90	20.09	0.491	20.13	19.76	0.176	19.76	20.22	19.97	20.90	19.99
Physical	10.93	12.03	0.0001*	11.27	11.74	0.116	11.39	11.44	11.23	13.80	0.033*
Confidence	41.68	42.27	0.255	41.87	42.09	0.670	41.56	42.39	41.80	43.78	0.306
Self-esteem	9.63	9.58	0.778	9.73	9.41	0.051	9.50	9.78	9.29	10.50	0.033
Positive Identity	24.37	24.69	0.305	24.39	24.73	0.301	24.20	24.73	25.03	25.33	0.205
Self-performance	7.71	8.02	0.087	7.78	7.97	0.324	7.87	7.94	7.49	8.00	0.537
Character	53.08	53.68	0.448	53.37	53.33	0.955	53.21	53.46	53.29	53.40	0.993
Morality	13.40	13.48	0.662	13.31	13.64	0.08	13.42	13.43	13.37	13.70	0.958
Integrity	23.04	23.39	0.592	23.27	23.10	0.802	23.35	23.01	23.15	22.80	0.965

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Honor the Difference	16.63	16.77	0.525	16.80	16.51	0.188	16.45	16.96	16.69	16.90	0.195
Care											
Sympathy	13.29	13.39	0.568	13.35	13.32	0.893	13.25	13.29	13.51	14.00	0.470
Connection	47.30	47.80	0.323	47.23	48.01	0.140	47.05	48.00	47.80	49.00	0.250
Parents	14.99	14.97	0.897	14.93	15.07	0.391	14.93	15.07	15.03	15.00	0.887
Teacher	10.02	10.34	0.03*	10.13	10.24	0.432	10.03	10.23	10.37	10.60	0.286
Friend	13.27	13.41	0.493	13.36	13.31	0.820	13.13	13.61	13.20	14.10	0.084
Community	9.01	9.08	0.704	8.83	9.38	0.003*	8.97	9.10	9.20	9.30	0.787

Information:

* Significant at $p < 0.05$

Table 3 Distribution of the 5Cs of PYD components and different test results based on sex, school type, and number of extracurricular types attended by high school / vocational school students in the city of Bogor

5Cs of PYD components	Sex			School Type			Number of Extracurricular Type				
	Girl	Boy	Sig	SMA	SMK	Sig	1	2	3	4-5	Sig
Physical	10.93	12.03	0.0001*	11.27	11.74	0.116	11.39	11.44	11.23	13.80	0.033*
1. Superior in sport	2.40	2.73	0.0001*	2.48	2.67	0.042*	2.57	2.55	2.40	3.00	0.259
2. Outdoor physical activity	2.94	3.12	0.027*	3.04	3.01	0.746	2.96	3.03	3.09	3.70	0.017*
3. Inferior in sport	2.59	2.97	0.001*	2.68	2.92	0.019*	2.77	2.76	2.69	3.50	0.072
4. Uneasy to do outdoor physical activity	2.99	3.21	0.003*	3.08	3.11	0.610	3.08	3.08	3.06	3.60	0.105
Connection											
Teacher	10.02	10.34	0.03*	10.13	10.24	0.432	10.03	10.23	10.37	10.60	0.286
1. Teacher will help me	3.22	3.37	0.021*	3.25	3.35	0.129	3.25	3.27	3.43	3.50	0.222
2. Respect for teachers	3.53	3.63	0.89	3.55	3.62	0.234	3.51	3.64	3.60	3.60	0.249
3. I was valued at school	3.27	3.35	0.217	3.33	3.28	0.411	3.27	3.32	3.34	3.50	0.518
Public	9.01	9.08	0.704	8.83	9.38	0.003*	8.97	9.10	9.20	9.30	0.787
1. Neighbors help me	3.04	3.04	0.870	2.99	3.11	0.09	3.01	3.01	3.14	3.10	0.698
2. Happy to had a neighbors	2.90	2.95	0.524	2.85	3.04	0.07	2.88	2.95	2.97	3.10	0.628
3. Help each other with neighbors	3.08	3.09	0.859	2.99	3.24	0.0001*	3.07	3.12	3.09	3.10	0.944

The distribution by component shows what components in the sub variable make these differences significantly different. First, on the differentiator based on sex, it is showed that the physical subtypes (components of inferior in sports and uneasy to do outdoor activities have an inverse score from a 4 to 1 rating for the questions asked) all components show a significant difference with a

significance value below 0.05. However, in the sub variable of the connection with teacher in terms of accumulative value, it turned out that the difference was only in one component, namely "the teacher will help me".

Next, the differences based on the type of school show that there are significant differences between respondents from SMA and SMK. SMK students differ in the superior component in sports, weak in sports (in this section the assessment is given in reverse from 4 to 1, while other parts are 1 to 4), and help each other with neighbors. This shows that the SMK students were different in terms of sports and their interactions with neighbors. Boys do sport activity more than girl, and there is more boy than girl in SMK students.

The final differentiator is based on the number of extracurricular types that shows only one component difference. The difference is in the components of easy physical activity outside the room for respondents who follow 4-5 extracurricular types compared to other numbers. Physical activity is not a sports activity, but other things that are done outside the classroom/daily activities.

Results of this study indicate that there are differences in competence between boys and girls. This is a condition commonly found in various literatures that boys are more physically active than girls. However, research conducted by [18] showed that this condition occurs due to the influence of internal socioecological factors, family, school, and society which can still be changed. better. If girl physical competence is to be improved with the aim of better resilience, it is necessary to improve these socioecological aspects. For example, in the school context it is necessary to pay attention to the different sport method between boy and girl.

Another component of the physical sub variable is outdoor physical activity, which shows lower scores for girl than boy. In fact, physical activity outside the room provides an important value for the resilience of a teenager, as the results of a study conducted by [19]. She pointed out that young women who took part in an outdoor activity program called Dirt Divas showed consistent changes in resilience between before and after joining the program. It was showed the need for support girl to be more active in outdoor activities.

On the other hand, there was still a difference between boy and girl in the connection sub variable with the teacher, it was showed that boy had higher scores on the three components, even though the real difference was statistically only in the "teacher will help me" component. Even though it shows the same high values, there is a slight difference with the research conducted by [20]. The results of the research conducted by him showed that closeness to school (not specific to teachers) increased with increasing age in adolescents, but with higher scores for female students. The results of this study prove that students who had a high relationship with the teacher, and boys have more closeness to school.

The component that has a significant difference between high school and vocational high school students in the physical subtype is the sports section. When analyzed based on the SMK background, one of the SMK is a technical school where the majority of students are boy so it can be considered as a natural thing: SMK students are fond of sports. However, the other three SMKs do not have engineering backgrounds, but computers, chemistry, and management. Several other studies that took samples of SMA and SMK students also found no difference in this, such as research by [21] which found differences in gender and not in school type and [22] who found differences in SMA and S students. MK in terms of career adaptability ability.

In addition, this study also found that vocational students believed their neighbors more than high school student. This is in line with (References 13) which states that vocational were more appeased by adults in their environment than high school student. In this study, the number of boy of vocational students were more girl, and this dominance is thought to cause higher trust in neighbors than high school students. This is in line with the results of research by (References 19) which states that over time, the closeness of male adolescents to their environment will be greater while for female adolescents the opposite will occur. For example, over time, male adolescents will open up to activities in the environment, while female adolescents are more limited to domestic's environments.

The number of extracurricular types, as a factor supporting the high 5Cs score for resilience, is only significantly different in one component, namely outdoor physical activity for students who take 4-5 extracurricular types. However, although not statistically significant, it was generally seen that students with 4-5 extracurricular types had a higher 5Cs score than those who did not. This is in line with research conducted by [23] which proved that the more types of extracurricular activities were followed, the less involvement of drug abuse, depression and risky behavior were. The research conducted proves that by following 4-5 extracurricular types, the 5Cs PYD value will be higher, and so will the resilience. This is in line with research from [24] which

states that adolescents who are involved in extracurricular activities will have higher resilience than those who are not, and (References 14) which states that adolescent resilience will increase by increasing adolescent activity.

IV. CONCLUSIONS

This research found that in general, there is no difference on the value of the 5Cs PYD as a measurement of resilience in based on sex, type of school, and the number of extracurricular activities followed.

The measurement of 5Cs of PYD can be used as a measurement of resilience in adolescents. In general, the measurement of 5Cs of PYD gives an overview of values that is aligned with the measurement of resilience. However, it needs to be confirmed further to set it as a measurement of resilience.

Regardless of the accuracy of PYD to measure resiliency, these research findings give some advice for researcher, parents, and school. For researcher, it is important to confirm what components could both measure PYD and resilience, while other could only measure one of them. For parents, it is important to support their child to be active in extracurricular activities to boost their resilience. For school, they should support their student to joint at least two types of extracurricular activity to gain more resilience.

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