

# Family Resilience Index in Student: Case Study Vocational High School in Bekasi

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**Abstract.** Student's family conditions have an impact on teaching and learning activities. This study aims to design and measure the index of student's family resilience. The research employed quantitative research by surveying 200 vocational students in Bekasi city. Factor analysis was utilized to design the weighting index of student's family resilience. The results of the study showed that the family resilience index is supported by the dimensions of legality and household integrity, physical resilience, economic survival, psychological resilience, and social-cultural resilience. The result of the family resilience index measurement in Bekasi city is equal to 23.51 can be categorized as fair and the resilience index of dropout students was 17.86 that can be categorized as low.

**Keywords:** Family Resilience, Student, Vocational High School.

## 1 Introduction

At a large and developed country, of course, education is one of the important pillars in improving the quality of human resources. In the year of 2017/2018, there were 76,297,500 people in school-age [1] or around 29.2% of the Indonesia's total population. The efforts in improving the quality of national education that is currently and continuously carried out by the government, still have many obstacles to deal with in the field. The high number of dropout students is one of the priorities that the government constantly pay attention to. Dropping out of school is a global issue that occurs not only in developing countries like Indonesia, even in developed countries such as the United States and Europe [2]. Based on the data released by the Ministry of Education and Culture in 2017, the number of students dropping out of school at the level of primary and secondary education in all regions of Indonesia reached 187,824 students [1].

The dropout data at vocational high schools in Bekasi City is 778 people, higher than the dropout rate on high school that is as many as 90 people [1]. This condition is consistent with previous research that technical or vocational schools tend to have more dropout students compared to public schools [3].

The problem of students dropping out of school is inseparable from the problem of family socioeconomic statuses [4][5][6][7][8][9]. The situation of families that have less economy or are categorized as poor households, single parents [10], students with a large number of families [3] or parents who have not graduated from school [8], have a risk of dropping out of school than students who come from families who do not have these risk factors. The situation of parents who are unable to cause not having enough funds to finance their children's school needs, such as tuition fees, transportation costs, and other costs or to purchase equipment and

school uniforms for their children[11]. Some parents even manage their children to work, therefore they can ease the economic burden of the family [12]. However it makes the child's energy and mind are divided between work and study which results in less motivation to attend school. There have been a lot of studies on family conditions that cause students to drop out of school by previous researchers, yet few have examined the resilience of students' families with the result that the occurrence of dropouts can be minimized. This study seeks to design and measure the family resilience index of students who either drop out of school or those who do not.

## **2 Method**

The research has been proceed with quantitative method by using factor analysis test. Questionnaires were used in the analysis unit of dropout students and non-dropout students who took the Vocational High School (SMK) education level in Bekasi City during the academic year of 2017/2018. The number of samples have been determined as many as 200 people, consisting of 60 samples of students dropping out of school and 140 samples of students who are still actively attending the Vocational High School (SMK) in Bekasi City. The proportional number of samples were following the data from Vocational High School (SMK) students per district. Students sampling technique was using Purposive Sampling.

The collected family security questionnaires were tested for validity and reliability. There are 16 questions which define the family resilience index. Family resilience consists of 5 dimensions, namely: i) legality & household integrity; ii) physical resilience; iii) economic security; iv) psychological social resilience, and; iv) socio-cultural resilience based on the Ministry of Women's Empowerment and Child Protection (KPPA) in PPPA Minister Regulation No. 6/2013. The questionnaires were taken from the KPPA which futher tested for factor analysis to generate an index. Factor analysis has been utilized to identify a number of relatively small factors, which can be used to explain a large number of interconnected variables. The process in factor analysis consists of: a) formulating the problem; b) arranging correlation matrix; c) extraction; d) rotating factors; e) interpreting factors; f) making factor scores, and; g) selecting the surrogate variable or determine the summated scale using the SPSS ver 23 software.

## **3 Results and Discussion**

The family has a very important function in improving the quality of life of individuals, families, and communities. The National Population and Family Planning Agency (BKKBN) has divided into eight functions of the family, namely: a) religion; b) social culture; c) love; d) protect; e) economy; f) reproduction; g) socialization and education; and h) environmental development [13]. Family resilience is the ability of the family to ward off or protect themselves from various problems or life threats which both coming from within the family itself or from outside the family such as the environment, community, citizen or country [13]. Family resilience can also be interpreted as family strength in terms of inputs, processes and outputs, and even the impact of outputs whose benefits can be felt by the family as well as the family's power to adapt to their environment [14]. Test results showed that the questionnaires were valid and reliable. The testing result accoding to Kaiser-Mayer-Olkin Measure of

Sampling Adequacy (KMO MSA) value was  $> 0.5$  and the Bartlett's Test of Sphericity (Sig.) was  $< 0.5$ . Thus, it indicates a decent indicator for factor analysis. The results of the factor analysis are shown in **Table 1**.

**Table 1.** Dimension of family resilience index dimensions

Dimension	Dimension weight	Indicator
Household legality and integrity	27%	4 items
Physical resilience	15%	2 items
Economic resilience	30%	4 items
Psychological social resilience	11%	3 items
Social security	17%	3 items
Total	100%	16 questions

The dimension of family resilience is strong not only in terms of the legality it has, but there must be a family togetherness in the family, shown by living together in one house. Disharmony in the family can lead to divorce, where divorce data in Bekasi City in 2017 showed that there were 2,767 divorce cases [15]. Families with divorced parents will have an impact on the mentality and motivation of children to continue attending school, which in turn leads the child to drop out of school. While the dimension of the family's physical resilience was determined by the fulfillment of food needs for eating and drinking to meet adequate nutritional content. A child who is fulfilled his nutritional adequacy will affect his physical health and intelligence. Lack of nutritional content in food and drinks is a result of the inability of the family economy or low family income, thus making a child's tendency to help parents in making a living.

In the dimension of family's economic resilience, it can be realized if the family can meet its indicators namely: private homeownership; fixed monthly family income from a permanent job; has savings; is able to send their children to school; and openness of financial problems between husband and wife. In the dimension of psychological social resilience, it is whether the family could overcome non-physical problems such as emotions, caring between husband and wife and harmony in the household. Statistical data of the City of Bekasi shows that in 2017 there were 220 cases of domestic violence where victims were reporting to the Women's Integrated Services and Child Protection Centers (P2TP2A) [15]. These psychological disorders are then manifested significantly through the typical attitudes of a teenager such as emotional inconsistencies (emotions cannot be restrained), emotional lability (mood swings quickly), excessive anxiety and feelings of inferiority [16]. Further, a family is classified to have socio-cultural resilience if it has a good relationship with the surrounding social environment. Families who have high socio-cultural resilience can be seen by their participation in social and religious activities in the community.

The value of the family resilience index was generated from the average of all indicator and dimension scores. The level of family resilience was classified into five categories shown in Table 2. Determination of the interval value of each group in the family resilience index was calculated using the data distribution with the standard deviation of the normal distribution. The calculation result of Bekasi city family resilience index showed a value of 23.51, which fall in the category of "fair" family resilience. In school dropouts, the family resilience index value is 17.86 which belong into the "low" family resilience category, while in active students the family resilience index value is 25.93, which means it belongs to the group C (see **Table 2**).

**Table 2.** Family resilience index interval value

Interval Value	Group	Category
$\leq 12,73$	E	Very low
12,74-19,60	D	Low
19,61-26,48	C	Fair
26,49-33,35	B	High
$\geq 33,36$	A	Very high

#### 4 Conclusions and Suggestions

The calculation results of the family resilience index in Bekasi City showed that it is within group C category, while in families of students dropping out of class it is within group D category. The family resilience index for students who are active in class was within group C. According to the results, the suggestions is given for the Bekasi City government which requires more efforts to increase the education budget to run a 12-year compulsory education program and free up the cost of education until secondary education, especially for students who have a low family resilience index, so they can finish their education.

**Acknowledgments.** This research was supported by the University of Indonesia Directorate of Research and Community Service (DRPM) through the PITMA B grant on fiscal year of 2019-2020 No: NKB-1036 / UN2.R3.1 / HKP.05.00 / 2019

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