

MEASURING POSITIVE YOUTH DEVELOPMENT: CONFIRMATORY FACTOR ANALYSIS

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Abstract: Effective youth development programmes should be developed based on several aspects of positive youth development identified as addressing the needs of a particular segment of youth. The purpose of this study was to identify the underlying factors that measured positive youth development among Malay youths in Malaysia based on a proposed measurement model. Data were collected at youth programmes organised by the Ministry of Youth and Sport, Malaysia using self-administered questionnaires among Malay youths. A total of 431 youths were involved in this study, comprising 204 males and 227 females. Structural Equation Modelling (SEM) was used to analyse the data. The respondents were selected using a two-step sampling technique starting with an area sampling followed by a systematic sampling. The findings of the study indicated that the measurement model of positive youth development was valid, reliable and achieved an acceptable level of goodness-of-fit. The study concluded that there were four underlying factors measuring positive youth development, identified as self-determination, social competence, pro-social norms and bonding. The study suggested that these factors were aspects of positive youth development that require emphasis in youth development programmes to ensure sustainable youth development. The implication of this study would be that the Ministry of Youth and Sports should embed these aspects of positive youth development in youth training or development programmes in order to enhance youth potentials in contributing to the community wellbeing and nation development.

Keywords: Positive Development, Confirmatory Factor Analysis, Youth, Sustainable, Society.

1. INTRODUCTION

Youth development is perceived as an important aspect of a nation's development and growth (Samsudin 2010). In Malaysia, the youth constitutes almost half of the population (Mahadzirah, *et al.* 2014). In 2010, out of 26 million Malaysian citizens, 10.95 million (42%) were youths (Malaysia Statistics Yearbook 2011). A youth is described as a person in the age group of between 15 and 40 years (National Youth Development Policy 1997). They have a great potential to positively influence national development in many aspects such as politics, society and the economy

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(Asnarulkhadi 2009). Jalaluddin (2009) stressed that youth in Malaysia should be developed as homo-intelligence youth, a generation who have high personality, are smart in using knowledge for life progress and who can contribute to the development of society and nation. It was stated in the 10th Malaysia Plan 2011-2015 (2010) that youths were perceived as an important source of human capital essential for enhancing and enabling the nation's growth. Hence, the Malaysian government stepped up efforts and increased investments to nurture and shape the positive aspects of youth potentials to prepare them for future undertakings in developing the country. Moreover, Sun and Shek (2012) argued that there were theoretical propositions that suggested positive youth development would influence the well-being and health status of an individual. Positive youth development was defined by Shek and Ma (2010) as the growth, cultivation and nurturance of developmental assets, abilities and potential in adolescence. Thus, Brennan *et al.* (2007) proposed that youths should be developed and guided to enable them to become productive resources through programmes that would increase their knowledge, skills, and engagement, find them a place in the society and teach them how to contribute to a community.

Every youth has strengths, talents, and interest that shape his/her potential for a bright future. The positive youth development can be enhanced when the strengths are aligned with resources for healthy growth from homes, schools and communities (Phelps *et al.* 2009). Positive youth development also can be enhanced by strengthening one's subjective well-being, competence and social support (Meyers and Meyers 2003). It also refers to the manner in which individuals' internal and external resources act as the protective shields to help them when dealing with life challenges (Catalano *et al.* 2004). An individual with higher positive development would probably have higher potential to survive life challenges and become a productive human resource.

The nation's undertakings of enhancing positive youth development are deemed necessary to support the nation's aspiration for healthy, happy and competent youths who will help Malaysia to become a developed nation by 2020. However, the more crucial step before embarking on formulating programmes to address positive youth development is to ascertain the aspects of positive youth development that require emphasis to nurture youths into becoming productive resources for national development as problem behaviours lead to losses in youth productivity. Lerner (2004) stressed the importance of measuring positive youth development to provide insights on aspects of positive development that would give benefits to both individual development and welfare of the social context (family, community and civil society) that supports the development of the nation. Thus, promoting positive development among the youth, especially among Malay youth because it has been reported that the incidence of problem behaviour is high among Malay youth (*Laporan Dadah 2013*, National Anti-Drug Agency,

Malaysia), should be undertaken to steer them into thriving individuals who will make a positive contribution to self, family, community and civil society. Hence, the aim of this study was to identify the underlying factors of positive development among Malay youth in Malaysia. This was to ensure that the development of the youth programmes would address aspects of positive youth development identified in this study.

2. LITERATURE REVIEW

Generally, positive youth development is described as the growth, cultivation and nurturance of developmental assets, abilities and potentials in youth (Shek *et al.* 2007; Amodeo and Collins 2007). Damon (2004) pointed out that the foundation of positive youth development was to focus on nurturing talents, strengths, interest and future potential of youths in contrast to the approach that focusses on addressing problem behaviours among youth such as substance abuse and engagement in antisocial behaviour. The positive youth development approach recognises youths in terms of assets to be nurtured instead of perceiving them as a group that are highly susceptible to risky behaviours. In short, positive youth development is an approach that provides opportunities for youths to develop future potentials through cultivating, developing and harnessing the underlying good assets, abilities and potentials already existing among youths to the possible highest potential level through proper guidance from the adults and/or organised youth programmes. This approach engages in understanding, educating, and engaging youth in productive activities rather than taking the approach of correcting, curing or treating them as problematic youths that need recovery (Damon 2004).

Catalano *et al.* (2002) suggested that there are several characteristics associated with positive youth development, including emphasis on the integrated youth development, emphasis of person-in-environment perspective and focus on developmental model about how young people grow, learn and change. It was mentioned in Sun and Shek (2010) that Catalano *et al.* (2002) proposed fifteen inter-related constructs measuring positive youth development which consisted of bonding, social competency, emotional competency, cognitive competency, behavioural competency, moral competency, self-efficacy, pro-social norms, resilience, self-determination, spirituality, clear and positive identity, beliefs in the future, pro-social involvement, and recognition of positive behaviour. The definitions of these constructs by Shek *et al.* (2012) are illustrated in Table 1.

3. METHODOLOGY

3.1. Survey Instrument

The measurement of positive youth development was adopted from the study of Shek *et al.* (2007) that proposed ninety items. These items measure the fifteen

Table 1
Definitions of Positive Youth Development Constructs

<i>Construct</i>	<i>Definition</i>
Bonding	Development of strong affective relationship with the commitment to people (healthy adults and positive peers) and institutions (school, community and culture)
Social competence	Interpersonal skills (such as communication, assertiveness, conflict resolution and interpersonal negotiation), ability to build up positive human relationship and provision of opportunities to practice such skills.
Emotional competence	Awareness of one's own emotions, ability to understand others' emotions, ability to use the vocabulary of emotion, capacity of empathy, ability to differentiate internal subjective emotional experience from external emotional expression, and capacity for emotional management.
Cognitive competence	Cognitive abilities, processes, or outcomes such as logical thinking, creative thinking, and critical thinking. Poor cognitive competence is usually a precursor of adolescent developmental problems.
Behavioural competency	Ability to use nonverbal and verbal strategies to perform socially acceptable and normative behaviour in social interaction and to make effective behaviour choices, such as resisting peer pressure.
Moral competency	Orientation to perform ethical behaviour, ability to judge moral issues, as well as promoting the development of justice and altruistic behaviour in adolescents. It is noteworthy that moral confusion is a common problem among contemporary young people.
Self-efficacy	Beliefs in one's abilities and to use such abilities to attain goals. Research findings show that self-efficacy is positively related to adolescent developmental outcomes.
Pro-social norms	Clear and healthy standards, beliefs, and behaviour guidelines which promote prosocial behaviour such as cooperation and sharing.
Resilience	Ability of an individual for adapting to changes in a healthy way, a reintegration process for an individual to recover, or positive outcomes after experiencing adversity. It refers to adolescents' capacity against developmental changes and life stresses in order to "bounce back" from a stressful life experience and achieve healthy outcomes.
Self-determination	Ability to set goals and make choices according to his/her own thinking. Regarding skills and strategies which promote self-determination, they include self-awareness of strengths and limitations, goal-setting and action-planning, problem-solving, choice-making and self-evaluation.
Spirituality	Promotion of the development of beliefs in a higher power, cultivation of a sense of life meaning, and values about life choices.
Clear and positive identity	Building of self-esteem and facilitation of exploration and commitments in self-definition.
Beliefs in the future	Hope and optimism, including valued and attainable goals, positive appraisal of one's capability and effort (a sense of confidence), and positive expectancies of the future.
Pro-social involvement	Events and activities that promote young people's participation in pro-social behaviours and maintenance of pro-social norms.
Recognition of positive behaviour	Development of systems for rewarding or recognizing participants' positive behaviour such as pro social behaviour or positive changes in behaviour.

Source: Shek *et al.* (2012), Page 2

domains of positive youth development as discussed above. A pilot test was conducted to determine the reliability of the instrument in the Malaysian context. The pilot test was conducted among youth in Terengganu that attended youth programmes that have the similar background with the actual respondents. Each item used a 10 - point Likert scale ranging from 1 as highly disagree to 10 as highly agree for respondents to rate their agreement and disagreement toward every statement. The data collected in the pilot study was subjected to an Exploratory Factor Analysis (EFA) and the findings of the analysis suggested the measurement instrument achieved acceptable reliability (Cronbach's alpha > 0.70) and was used in the actual survey.

3.2. Data collection method

The collection of data for actual study was conducted in the youth programmes organised by the Ministry of Youth and Sport, Malaysia in the selected area through self-administered questionnaire. The sample of the study representing the entire youth population was selected using a two-step approach. An area sampling technique was used at the first step where five states were identified to represent north, south, east, west and central regions of Peninsular Malaysia. The selected states were Kedah, Johor, Terengganu, Negeri Sembilan and Putrajaya respectively. Finally, sample units for each location were selected using a systematic sampling technique. In this case, every 10th intercepted respondent was selected after an initial random starting point. 150 questionnaires were distributed for each location and the total number of questionnaire distributed was 750.

3.3. Data analysis procedure

The data collected were analysed using Statistical Package for Social Science Program (SPSS Version 16) and Analysis of Moment Structures (AMOS Version 18). SPSS was used to run descriptive analysis and exploratory factor analysis while AMOS was used to run confirmatory factor analysis in order to identify the measuring items of positive youth development.

4. RESULTS AND DISCUSSION

4.1. Profile of the Respondent

The respondents involved in this study were represented by both genders: male (55%) and female (45%). Majority of the respondents (86%) were in the age group of 15 - 25 years old and were unemployed (86%). The figure is consistent with the data reported in the Malaysia Statistic Year Book 2011 which illustrated that only 15% individuals within this age group were working. Majority of the respondent attended national secondary school (73%) coming from both rural areas (52%) and urban areas (48%). Thus, it is concluded that the respondents who participated in

the study represent the youth population within the age bracket of 15 – 25 years old.

4.2. Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) was used to confirm the measurement model after conducting exploratory factor analysis (Hair *et al*, 2010). The result from Exploratory Factor Analysis (EFA) would provide the underlying factors that best represent the data together with their respective measuring items. Following EFA, CFA was carried out to test the goodness of fit of the variables measuring the studied constructs. Any measuring items that obtained factor loadings of less than 0.6 and squared multiple correlation of less than 0.4 should be dropped from the analysis (Zainudin 2012) and supported by literature. Figure 1 shows the measurement model of positive youth development for Malaysian Youths. After conducting an item-deletion process, several items were dropped and 11 items with 4 factors remained in order to achieve a better fit model. These factors were:

- Self-Determination (SD)
- Social Competence (SC)
- Pro-social Norms (PN)
- Bonding (B)

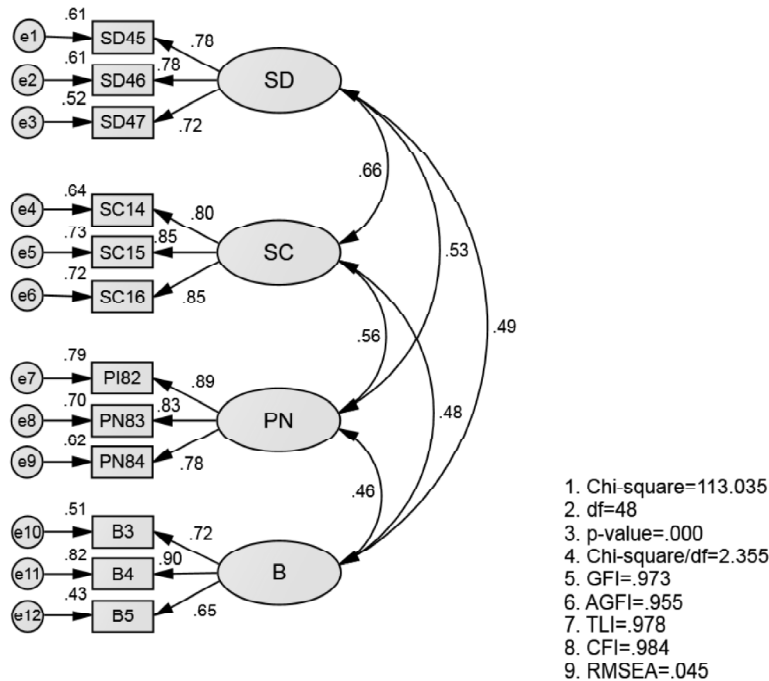


Figure 1: Measurement model of positive youth development

Table 2 presents the fitness indices for the measurement model of positive youth development. Several statistical indices are used to test the model's Goodness-of-Fit (Hair *et al.* 2010) and these indices are categorised into absolute fit, incremental fit and Parsimonious fit. Absolute fit is assessed based on indexes such as Root Mean Square Error of Approximation (RMSEA), the acceptable cut-off point is less than 0.08, and for Goodness-of-Fit Index (GFI), the values should be more than 0.9. Incremental fit measures are Comparative Fit Index (CFI) and Tucker Lewis Index (TLI). The values of these indexes should be more than 0.90. Parsimonious fit was determined using the normed Chi square and the cut-off value should be less than 5.0. The results of fitness indices of the model as illustrated in Figure 1 indicated that $\chi^2 = 2.355$, CFI = 0.984, TLI = 0.978, GFI = 0.973, AGFI = 0.955, RMSEA = 0.045. The model meets the requirement of goodness-of-fit since values of these indices meet their respective cut-off point requirements.

Table 2
Fit results for measurement model of positive youth development

Parameter	No. of items remaining	RMSEA (=0.08)	CFI (=0.90)	GFI (=0.90)	TLI (=0.90)	p-value (p>0.05) p>0.001)
PYD	12	0.045	0.984	0.973	0.978	0.000

The reliability and validity of the measurement model of positive youth development were performed after conducting CFA. Reliability and validity of the measurement model were assessed through unidimensionality, convergent validity and internal reliability. The value of factor loading was used to assess the unidimensionality of the model of positive youth development. Unidimensionality is achieved when the value of factor loadings meets the cut-off point value of above 0.6 (Hair *et al.* 2010). Convergent validity was assessed through Average Variance Extracted (AVE) and Composite Reliability (CR). The required levels of AVE and CR should be equal or more than 0.5 and 0.6 respectively (Hair *et al.* 2010). The internal reliability of the model was assessed using Cronbach's alpha (α) and its value should be equal to or more than 0.7 (Hair *et al.* 2010). The findings in Table 3 indicated that the measurement model met the requirements of unidimensional, convergent validity and internal reliability. Therefore, the measurement model of positive youth development is valid and reliable.

Table 4 illustrates the results for discriminant validity. According to Hair *et al.* (2010), discriminant validity was used to measure the extent to which a construct is really different from other constructs. The findings in Table 4 suggested that all constructs in the study achieved discriminant validity requirements. The values of square root of the average variance extracted of each construct (diagonal values in bold) are higher than the values of the correlations between each construct.

Table 3
Reliability and validity of the items measuring positive youth development

<i>Construct</i>	<i>Items</i>	<i>Factor Loading</i>	<i>(α)</i>	<i>CR</i>	<i>AVE</i>
Positive Youth Development (PYD)	Self-Determination (SD)		0.80	0.80	0.58
	I am confident about my decision. (SD45)	0.78			
	I will not change easily after making a decision.(SD46)	0.78			
	I can complete a task in a focused manner (SD47)	0.72			
	Social Competence (SC)		0.87	0.87	0.69
	I know how to communicate with others. (SC14)	0.80			
	I understand the rules in interacting with others.(SC15)	0.85			
	I can interact with others in a harmonious manner.(SC16)	0.85			
	Pro-social Norms (PN)		0.87	0.70	0.69
	I will try my best to contribute to society.(PI82)	0.89			
	I care about unfortunate people in society (PN83)	0.83			
	If there are opportunities, I will take up voluntary work (PN84)	0.78			
	Bonding(B)		0.79	0.81	0.59
	When I need help, I trust my teachers will help me.(B3)	0.72			
	I love my teachers and classmates.(B4)	0.90			
There are many healthy friends in my life.(B5)	0.65				

Table 4
Discriminant validity index summary

<i>Constructs</i>	<i>Self Determination</i>	<i>Social Competence</i>	<i>Pro-Social Norms</i>	<i>Bonding</i>
Self Determination (SD)	0.76			
Social Competence (SC)	0.66	0.83		
Pro-Social Norms (PN)	0.53	0.56	0.83	
Bonding (B)	0.49	0.48	0.46	0.77

4.3. Assessment of Data Normality

After the goodness-of-fit of measurement model was achieved, the data normality was ascertained. Criteria for normality assessment, namely skewness and kurtosis, were used to examine the data normality. The measure of skewness should fall

within the range of -3.0 to 3.0 (Kline, 2005) to indicate the data is normally distributed. In addition, the value of multivariate kurtosis should be lower than 50.0 to assume the multivariate normality is achieved (Zainuddin 2012). Skewness value for all the variables are within the range of acceptable values. Therefore, the data normality is assumed.

5. CONCLUSIONS

The study uncovers the underlying factors measuring positive development among Malay youth in Malaysia. In the Malaysian context, the findings of this study affirmed that positive youth development among Malay youths was manifested by four underlying factors labelled as self-determination, pro-social norms, social competence and bonding. Self-determination describes the youth ability to think for themselves and to take actions consistent with that thought. Pro-social norms is the willingness of youth to accept voluntary behaviour that will contribute to others in the community and social competence refers to the ability to build positive and healthy interpersonal skills and resolve interpersonal conflicts. Bonding is youth emotional attachment and commitment to form a close social relationship with parents, caregivers, siblings, peers, schoolmates, teachers and other members of the community.

The study suggested that these factors were aspects of positive youth development that require emphasis in youth development programmes to ensure sustainable youth development. The inclusion of these factors would ensure the development of effective youth development programmes. The study implies that the Ministry of Youth and Sports or any youth development body should focus on these aspects of positive youth development. This is to ensure that the development programmes or trainings are effective in addressing the specific needs of this segment of youth group. Effective youth development programme could enhance youth potentials in contributing to the community wellbeing and nation development.

There are several limitations of the present findings. First, the assessment of positive youth development was based on the perspective of the Malay youth in Malaysia. The generalisation of the study to other races should be done with caution. Future research should replicate similar study expanding to other main races in Malaysia. Second, the respondents were selected during the youth programmes organised by the Malaysia Ministry of Youth and Sport, so the findings of the study only represent this group of youth. Future studies should utilise data from several types of youth to validate the predictive directionality of variables in the model. Third, the present study was conducted on a cross-sectional research design which has the limitation of causality. Future research should adopt a longitudinal research design to overcome the problem of causality.

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