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Low Achievers' Parent-Child Relations and Liking of School

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Abstract

Educators and researchers have suggested that positive relations with their parents would have significant impacts on children's attitudes and behaviours. The present study has two purposes: (a) to examine whether parent-child relations would influence low achievers' liking of school, and (b) to investigate whether low achievers' parent-child relations and liking of school could be improved through a focused intervention emphasizing interpersonal skills. Using a confirmatory factor analysis approach, the path from prior self-concept of parent relationship to subsequent self-concept of academic affect were examined using a sample of students who failed in the school system of Hong Kong but were provided with further education opportunities through an innovative program known as Project Yi Jin initiated by the Special Administrative Region government of Hong Kong (N = 2,779). Controlled for the effect of prior academic affect, prior parent-child relations were found to have a significant, though small, association with subsequent academic affect. The results supported the positive influence of parent-child relations on children's liking of school. Analysis of variance of pretest and posttest scores showed that as a result of a program emphasizing the development of interpersonal skills, the students improved in both parent-child relations and liking of school. The findings have important implications for a holistic approach to children's education by incorporating parent education as an important component of the education system.

Self-concept has become an important area in educational research because students' behaviours are believed to be closely associated with self-concept (Byrne, 1996, Marsh, 1993; Marsh & Yeung, 1997a, b). Leading to the recent studies on self-concept, Shavelson, Hubner, and Stanton (1976) have provided a strong theoretical framework. Shavelson et al. (1976) define self-concept as an individual's perception of the self that is influenced by the environment. This implies that an individual's self-concept is influenced by other people, especially "significant others" such as parents. Whereas most recent studies have focused on the impacts of academic self-concept on academic achievement (e.g., Marsh & Yeung, 1997a; Yeung & Lee, 1999), the present study investigates whether students' relations with their parents would have a positive impact on their academic self-concept. Since the study focuses on students who have difficulty coping with conventional high school education, the findings will throw light on ways to help lower-achieving students in their education.

Importance of Academic Self-concepts

Recent research on academic self-concept is rigorous because self-concept has been taken as an

important educational outcome and also an important factor that contributes to other valued educational outcomes (Marsh, 1993; Yeung & Wong, 2004). In general, most educators and researchers believe that self-esteem and achievement are positively related. Hence, students with lower academic achievement seem to have lower self-esteem (Hatzichristou & Hopf, 1992; La Grea & Stone, 1990). On the one hand, school achievement plays a key role not only in assisting students to make further progress in the educational system, but it affects students' social status too. The ongoing public evaluation and the social comparison processes influence students' status in the classroom (Weinstein, 1991) and their self-concept. On the other hand, academic self-concept has also been found to influence academic achievement and academic behaviour (e.g., Giavrimis, Konstantinou & Hatzichristou, 2003; Marsh & Yeung, 1997a, 1997b; Muijs, 1997; Seegers, Van Putten & Vermeer, 2004; Wigfield & Eccles, 1992; Yeung & Lee, 1999). Recent research findings on self-concept have led not only to the advancement of theory and refinement of instruments (e.g., Marsh, 1990, 1992, 1993; also see Byrne, 1996 for a review), but also an emphasis on self-concept enhancement in educational programs (Marsh, Craven, & Debus, 1999; Yeung et al., 2004).

An important advance in self-concept research in the past two decades is an emphasis on a multidimensional approach to studying self-concept (e.g., Hagger, Biddle, & Wang, 2005; Marsh, 1986; Marsh & Yeung, 1997a, 1997b; Marsh, Parada, & Ayotte, 2004). In order to examine self-concept in various dimensions, Marsh has developed a series of Self Description Questionnaires (SDQs) for studying the self-concepts of students at different ages (e.g., Marsh, 1987, 1990, 1992, 1993; Marsh & O'Neill, 1984). In the academic dimension, Marsh (1986, 1992, 1993, 1998) has emphasized the domain specificity of self-concepts in various curriculum areas. Other researchers have also found support for the domain specificity (e.g., Hong & Perkins, 1997, Yeung & Lee, 1999, Yeung & Wong, 2004).

Recently, Marsh, Craven, and Debus (1999) have distinguished between self-concepts of competency and affect. Thus whether a student finds himself or herself competent in academic work and whether he or she likes schoolwork can be perceived as two distinct components of self-concept, although these two perceptions have been known to be closely related. Whereas most recent studies on students' academic self-concepts have focused mainly on the component of competency, few studies have focused on the affect component of self-concept. The study of the affect component of self-concept is important because in the era with an increasing emphasis on lifelong education (Education Commission, Hong Kong, 2000), a student is unlikely to pursue education throughout the whole life unless the student likes going to school. In the present study, we examined the self-concept of affect of those students who previously failed in the Hong Kong school system but were provided with the opportunity of further study via an innovative continuing education program known as Project Yi Jin (PYJ). Yeung et al. (2004) have shown that students are able to clearly distinguish between the two components of self-concept, and have provided support that the separation of the two components would have important implications for the study of students' self-concepts in a lifelong-learning context.

Parent-child Relations

Apart from the academic dimension of self-concept, the Marsh (1987, 1990, 1992, 1993) SDQs have also allowed us to examine self-concepts in non-academic areas. In the social dimension of self-concept, relation with parents forms an important construct. Some researchers have provided some evidence of the relationship between this social self-concept construct with other academic and non-academic outcomes. For example, Barber and Thomas (1986) have shown that children's self-esteem can be positively influenced by parents' supportive behaviour. Consistent with this finding, in a study of students in 5th through 8th grade, Felson and Zielinski (1989) have suggested a reciprocal relationship between children's self-esteem and their parents' support. Parental support has also been found to have significant influence on adolescents' career aspirations and work values (Thomas, 1986).

Parental support explicitly exhibited in the form of praise and rewards or implicitly in the form of moral support and encouragement may influence a child's attitudes and behaviours. Furthermore,

the influence of parental support can be found in a wide age range of students. For example, Hart and Behr (1980) suggested that young children's attitudes toward dental health could be improved by educating parents on the importance of dental health. In a study of a multiethnic sample of 139 middle school students, Turner and Lapan (2002) found that parental support is associated with adolescents' vocational self-efficacy. In sports, parental support has been found to have substantial impact on the participation and performance of young athletes (Hoyle & Leff, 1997). Holahan, Valentiner, and Moos (1995) have demonstrated that adolescents with better parental support tend to display better psychological adjustment than those with lower parental support. In a regression analysis of responses from 527 college students, Barber and Thomas (1986) found that daughters' self-esteem was best predicted by mothers' general support and fathers' physical affection whereas sons' self-esteem was best predicted by mothers' companionship and fathers' sustained contact.

Regarding schoolwork, parent-child relations have been found to be influential in students' academic work. The better the relations between the parent and child, the more likely will the child obtain parental support of their endeavours. Thus Wentzel (1998) has emphasized that the parents' role is essential for an educational program to be successful. For an intervention program to be effective, the parents of the students have an important role to play. By reinforcing the positive attitudes of their children, the parents may exercise a strong influential power in their children's development. In the academic area, the best known strategy of involving parents in educational intervention is probably found in reading programs. A tremendous amount of research has suggested that parental support could have positive effects on reading achievement (Cooper & Gersten, 2002; Enz, 1995; Verna & Spina, 2002). Using multiple regression analysis with a sample of 155 fourth grade students in Italy, Verna and Spina (2002) found positive effects of parental support on reading achievement. Specifically, when parents read with their children, help them with homework, talk with the teachers, and participate in school activities, they give their children tremendous advantage over those other children who do not receive similar attention from their parents (Lehr & Osborn, 2002).

Thus, many reading programs have involved parents in order to improve children's achievement and parental involvement seems to be effective in teaching children of a wide age range. For example, in a study on pre-school activities at home, Wood (2002) found that parent-child activities tended to improve children's achievement in reading over time. Other programs have found similar positive gains with children of other ages (e.g., Cooper & Gersten, 2002; Enz, 1995; Verna & Spina, 2002). Hence, researchers have suggested involving parents in literacy programs (e.g., Enz, 1995); and many educational programs today have involved parents actively to benefit children's learning (e.g., Cooper & Gersten, 2002; Dever & Burts, 2002; Green, 2002; Hertz-Lazarowitz & Horovitz, 2002; Minami, 2002). However, few studies have examined whether parent-child relations would benefit low achievers in their academic work.

Unquestionably, family background and parental care plays an important role in children's learning. Hausner, Powers, and Noam (1991) noted that the family is the cornerstone on which the adolescent's formation of self is based, so that guidance from parents is the first step in providing congruence and continuity for the adolescent transition and in developing the attachments that are essential for positive social bonds. Indeed, some researchers have suggested that a student's academic achievement can often be explained mainly in terms of family background (e.g., Burchinal, Peisner-Feinberg, Howes, & Pianta, 2002; Kulik, 2005; Blair, Blair, & Madamba, 1999). In essence, Burchinal et al. (2002) found that family background is associated with children's academic skills over time.

Similarly, Karther (2002) examined the relationship between preschool children and their fathers' literacy level. She found that the fathers' literacy activities, their value of education and aspirations for themselves and their children may influence their children's development. Using a structural equation modelling approach to analysing data from 4,034 Canadian adolescents, Garg, Kauppi, Uranjnik, and Lewko (2002) suggested that family climate and parental involvement tend to have positive effects on academic self-concepts that would presumably lead to subsequently

better achievement. Therefore, there have been suggestions of educating the parents in order to improve children's academic work. For example, Hart and Behr (1980) have shown that by educating their parents, the attitudes of children can be effectively modified (also see Sartor & Youniss, 2002). Hence, by teaching parents about the differential needs of their children, students may like school more and subsequently improve in their academic work. Naturally, there could be discrepancies between parents and their children in the perceptions of the level of parental support (Goldscheider, Thornton, & Yang, 2001). Thus whereas the parents might believe that they have provided sufficient support to their children, the children themselves may not think so. Furthermore, the parents may sometimes have a misconception of their children's needs. For example, there may be gender differences in academic work. In reading, as Schwartz (2002) has commented, boys tend to learn to read later, take longer to learn, have more difficulty in comprehension and value reading less than girls. Schwartz (2002) has recommended that parents must understand the importance of reading to their sons, and they should model reading, read together, and look up information with their sons. Nevertheless, despite possible gender differences, there is evidence that parental support can be quite influential to children in various aspects.

Low-achievers' Parent-child Relations and Liking of School

For low achievers, it is unclear whether positive parent-child relations could lead to desirable academic outcomes such as liking of school, and whether an intervention program with an emphasis on interpersonal skills and practical life skills could improve their relations with their parents and increase their liking of school. The sample in the present study came from an innovative project that provides an alternative route for students who have failed in the Hong Kong high school system to pursue further education at the tertiary level (see Wong & Yeung, 2004).

Since the 1960s, the Hong Kong Certificate Education Examination (HKCEE) has been a formal and official standardized public examination for 11th graders in Hong Kong. Obtaining five passes, including the English Language and Chinese Language subjects, is considered by the community as successful completion of secondary education. This also means potential access to tertiary education and opportunities of a decent employment. There was virtually no other alternative. Because only about 50% of the students pass the HKCEE upon completion of high school each year (Education and Manpower Bureau, 2002) which means about 50% (i.e., over 70,000 students) fail annually in the secondary education system of Hong Kong, there were queries as to whether there should be some alternative pathway for those who did not survive conventional schooling.

To provide a possible alternative, in 2000, the Education and Manpower Bureau, the highest authority for education and manpower policies in Hong Kong, launched a new initiative known as Project Yi Jin (PYJ). The curriculum was designed such that more attention is given to daily experience and applications. A student who passes all 10 subjects of the program will get the PYJ Certificate, which may be considered by the Hong Kong Government as comparable to five passes in the HKCEE (i.e., a full HKCEE), for employment. The PYJ program has been publicly recognized as a lifelong education program at the level of secondary 5 by tertiary institutions and many employers. Evidence has shown that the innovative PYJ has been able to help those previously failed students in their further education and employment (Wong & Yeung, 2004).

Soon, the key role of PYJ as a bridging program between failure and further education has become well known in the community. Considering their previous experiences of continual failure in the conventional high school, we might speculate that these low achievers in the conventional curriculum would have unduly low academic self-concept. Interestingly, Wong and Yeung (2002) have provided some findings that suggest otherwise. Based on Wong and Yeung's (2002) data, it seems that these low achievers liked to go to school although they did not do well in their academic work. However, Wong and Yeung did not examine the possibility of the innovative PYJ program to further enhance the self-concept of these students. Most relevant to the present study with failed students is the affect component of self-concept. If the program could make the students like to go to school more than they did before, then there would be good chances that they would pursue

further education at advanced levels.

Furthermore, relationship with parents is also of particular relevance to the study with PYJ students. Because the curriculum emphasizes personal development and interpersonal skills such that a module known as Communication Skills is incorporated in the program as a compulsory subject, we would expect the students to improve in their interpersonal skills. Since parents are probably one of the closest of all “significant others” to the PYJ students, any improvement in interpersonal skills should be manifested in their relationship with parents. Because parents in Hong Kong mostly show great concern about their children’s academic work and may perhaps use traditional Chinese ways of punishment and negative feedback in response to their children’s poor academic performance, with the continual failure of the PYJ students in the conventional high school, we might expect a low parent self-concept. It would be interesting to investigate whether the PYJ program could improve this social dimension of self-concept through a module with a social focus.

Finally, although previous studies have suggested a positive association of parent-child relations to academic outcomes, for low achievers such as the PYJ students, it is unclear whether parent-child relations would have positive associations with an academic outcome such as liking of school, which is important for lifelong education. Thus the questions we asked in the present study were:

1. Are low achievers’ parent-child relations associated with liking of school?
2. Can low achievers’ parent-child relations be improved through intervention with an emphasis on interpersonal skills?
3. Will low achievers like school more than before by providing them with a program that differs from the conventional high school curriculum?

We hypothesized that (a) parent-child relations were associated with liking of school, and (b) due to a change of focus in course content and change in expectations of performance criteria, students from PYJ would have enhanced self-concepts in parent-child relations and liking of school. In a way, the investigation can also be taken somewhat as a test of the effectiveness of the innovative “social experiment”.

Method

Participants

The participants of the present study were 3,224 students who responded to the survey items. These students had failed in the Hong Kong Certificate of Education Examination (HKCEE). The HKCEE is a standardized exam by the end of Grade 11 and is the basis for admission to subsequent study at the matriculation level. Failing to obtain satisfactory results in the HKCEE meant an end to further education. PYJ therefore has provided another route for those who failed in the HKCEE to pursue further studies. Consent to participate in the study was obtained from the participants before they completed the survey. The analysis used a sample size of 2,779 students.

Material

Apart from items that asked for demographic data, the survey contained 12 response items on a 5-point Likert-type scale asking about the students’ self-concepts of academic affect based on the Marsh, Craven, and Debus (1999) study and parent relationship based on Marsh’s (1990, 1992) Self-Description Questionnaire (SDQII). The 12 items were expected to form two scales before studying in PYJ: (a) self-concept of affect before PYJ (3 items), (b) self-concept of parent relationship before PYJ (3 items), and two parallel scales after PYJ: (c) self-concept of affect after PYJ (3 items), (b) self-concept of parent relationship after PYJ (3 items). Hence, the four scales were:

Academic affect before PYJ: Three items asked the students whether they looked forward to classes, whether they enjoyed going to classes and whether they liked to go to school before PYJ.

Relationship with parents before PYJ. Three items asked the students whether their parents understood them well, whether their parents liked them, and whether their parents treated them fairly before PYJ.

Academic affect after PYJ. Three items parallel to those asking the students about their academic affect before PYJ asked about their academic affect after PYJ.

Relationship with parents after PYJ. Three items parallel to those asking the students about their relationship with parents before PYJ asked about their relationship with parents after PYJ.

The 12 survey items forming the four a priori scales are listed in Appendix with alpha estimates of internal consistency for each scale. The participants responded on a 5-point scale (1 = strongly disagree; 5 = strongly agree) and the items were scored such that higher scores reflected more favourable responses to the item.

Procedure

A survey was conducted through telephone interviews. Responses were recorded on survey forms, which were collected and analysed. Time 1 data were collected at the beginning of the school year and Time 2 data were collected at the end of the school year about 10 months later.

Statistical Analysis

The means, standard deviations and correlations among the items are presented in Table 1. Because the items were developed for the specific purpose of this study and it was the first time the scales had been used with a sample of this nature, we first conducted a series of preliminary analysis. The preliminary analysis included alpha estimates of internal consistency of each of the a priori measures and principal component analysis with the 6 items in Time 1 and 6 items in Time 2 separately to test their ability to form the two expected factors in support of the multidimensionality of self-concept. The analysis was conducted with SPSS (Nie, 1994). For each time point, the three items asking students about their self-concepts of academic affect and three items asking about their self-concept of parent relationship were expected to form two distinct factors.

Confirmatory factor analysis (CFA) models were then tested. The conduct of CFA has been described elsewhere (e.g., Byrne, 1998; Jöreskog & Sörbom, 1993; Pedhazur & Schmelkin, 1991) and is not further detailed here. The analysis was conducted with the SPSS version of PRELIS and LISREL using maximum likelihood procedures (Jöreskog & Sörbom, 1988) with listwise deletion of missing data. The goodness of fit of models is evaluated based on suggestions of Marsh, Balla, and McDonald (1988) and Marsh, Balla, and Hau (1996) with an emphasis on the Tucker-Lewis index (TLI), but we present also the chi-square test statistic and the relative noncentrality index (RNI). For an acceptable model fit, the values of TLI and RNI should be greater than .9.

A series of CFA models were tested based on a 12 x 12 (6 Affect + 6 Parent items) covariance matrix. We first tested the measurement models positing the a priori factors. Then we tested the paths from the Time 1 Affect and Parent factors to the Time 2 Affect and Parent factors. Figure 1 shows the path model tested in the present study.

Table 1. Means, Standard Deviations, and Correlations of Measured Variables

Variable	Mean	SD	T1A1	T1A2	T1A3	T1R1	T1R2	T1R3	T1A1	T1A2	T1A3	T1R1	T1R2	T1R3
T1Affect1	3.25	0.92	--											
T1Affect2	3.11	0.95	.54*	--										
T1Affect3	3.23	0.90	.58*	.57*	--									
T1Relation1	3.22	0.94	.23*	.23*	.29*	--								
T1Relation2	3.58	0.89	.28*	.29*	.36*	.56*	--							
T1Relation3	3.64	0.93	.24*	.24*	.30*	.44*	.65*	--						
T2Affect1	3.37	0.93	.75*	.47*	.52*	.20*	.27*	.25*	--					
T2Affect2	3.31	0.95	.46*	.71*	.49*	.16*	.24*	.22*	.56*	--				
T2Affect3	3.41	0.90	.47*	.47*	.73*	.26*	.34*	.30*	.59*	.57*	--			
T2Relation1	3.36	0.95	.23*	.20*	.26*	.80*	.53*	.44*	.25*	.23*	.33*	--		
T2Relation2	3.67	0.88	.27*	.25*	.32*	.50*	.82*	.61*	.31*	.29*	.37*	.59*	--	
T2Relation3	3.73	0.91	.24*	.23*	.28*	.43*	.61*	.86*	.28*	.26*	.33*	.49*	.67*	--

Note: T1 = Time 1. T2 = Time 2.

It is important also to test whether students' self-concepts of academic affect and parent

relationship could change due to intervention. On the basis of CFA Model 2, the scores of items for each scale were averaged to form a scale score. A repeated-measures analysis of variance (ANOVA) was conducted to examine whether the PYJ program was able to bring about significant change in the students' self-concept of academic affect. Similarly a repeated-measures ANOVA was conducted to examine the potential change in their self-concept of parent relationship. Support for the effectiveness of the intervention program would require these changes to be significant. Findings of significant changes would imply that by providing effective intervention, the students' relationship with their parents can be improved and that by providing a suitable educational program to them, even the academically weak students who had experienced failure in the conventional school system would like school more than they did before.

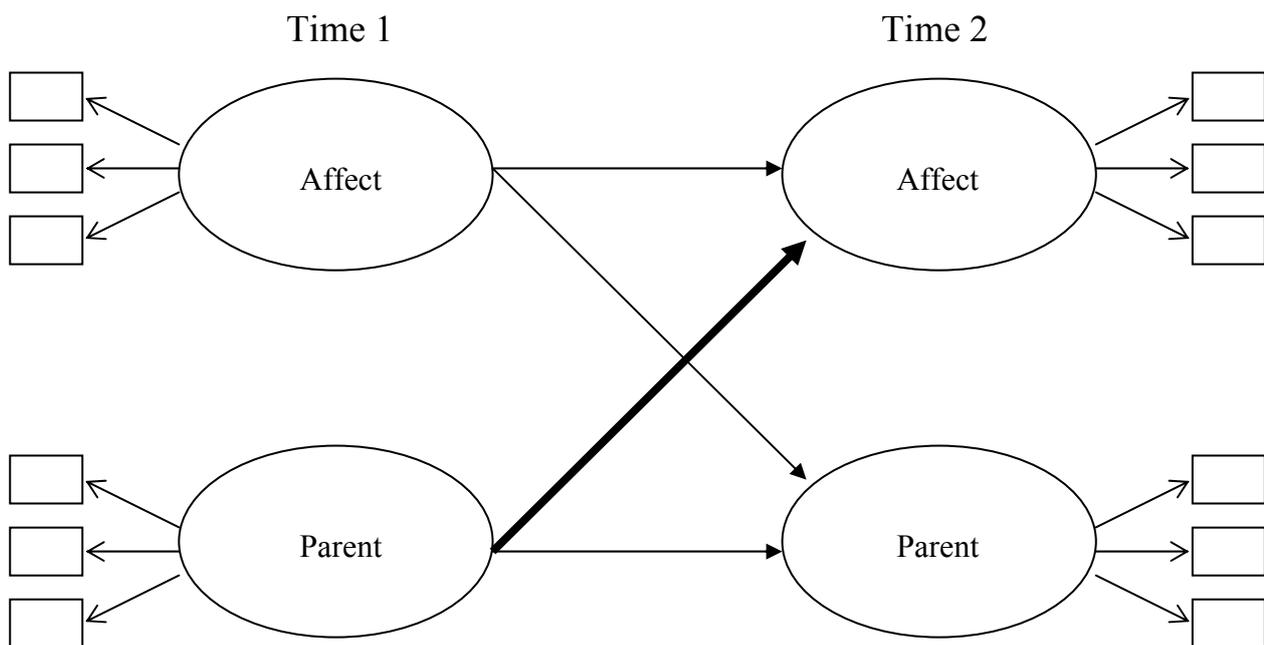


Figure 1. Model testing the paths from Time 1 to Time 2 Affect and Parent factors.
Note: The bold arrow line is the critical path in the present investigation.

Table 2. Goodness-of-fit Summary for Models

Measurement Models	χ^2	df	TLI	RNI	Paths			
1. 4 factors, no CU @	6124.35	48	.647	.743				
2. 4 factors, 6 CU	147.65	42	.993	.996				
3. 2 factors, no CU @	11921.53	53	.376	.499				
4. 2 factors, 6 CU	2496.27	47	.855	.897				
5. 1 factors, no CU	12008.47	54	.383	.495				
6. 1 factors, 6 CU	3680.63	48	.789	.847				
Path Model					T1A-T2A	T1A-T2P	T1P-T2A	T1P-T2P
7. Path model	147.65	42	.993	.996	.82*	-.01	.05*	.92*

Note: * $p < .05$. $N = 2779$. RNI= Relative noncentrality index. TLI= Tucker-Lewis index. Uniq = uniquenesses (residual variances associated uniquely with the measured item). CU = correlated uniquenesses. Res = residuals. FL = Factor loadings. The null model had a χ^2 of 23750.63 with 66 df. For the paths, T1 = Time 1, T2 = Time 2, A = Affect, and P = Parent. @ These models were non-positive definite.

Results

Preliminary Analysis

The reliability of each scale was good (see Appendix). The alphas were .79, .78, .80, and .81,

respectively for the Affect and Parent factors in Time 1 and Time 2 respectively. A principal components analysis was conducted with the six self-concept items in Time 1 using varimax rotation in the SPSS statistical package (Foster, 2001; Green, Salkind, & Akey, 2000). The two a priori factors were extracted, explaining 70.5% of total variance. The factor loadings were .83, .82, and .82 for Affect and .77, .86, and .83 for Parent. Similarly, we conducted a principal components analysis with the six parallel items in Time 2 using varimax rotation. Similarly, the two a priori self-concept factors were extracted, explaining 72.1% of total variance. The factor loadings were .84, .83, and .81 for Affect and .80, .87, and .83 for Parent. The results have provided preliminary support for the distinctiveness of the two factors.

Measurement Models

Table 2 presents a summary of the goodness of fit for the models tested here.

Model 1. The null model had a χ^2 of 23750.63 with 66 df. Model 1 did not provide a good fit to the data (TLI = .65). As expected, Model 1 that did not include correlated uniquenesses overestimated the correlations between the matching factors of Time 1 and Time 2. Thus, the solution of Model 1 was non-positive definite, with correlations between Time 1 Affect and Time 2 Affect and between Time 1 Parent and Time 2 Parent were larger than 1.

Model 2. Like Model 1, Model 2 posited four factors: Affect and Parent separately in Time 1 and in Time 2, respectively; but included also six correlated uniquenesses respectively for the identical items across the two time points. Model 2 provided a good fit to the data (TLI = .99). The factor loadings were significant and reasonable, ranging from .63 to .88. As expected, the correlations between matching factors were high (.85 and .92, respectively for the Affect and Parent factors of two time points). The correlations between non-matching factors were moderate (from .44 to .48). This model provided support for the separation of the two self-concept constructs, viz., Affect and Parent, at two time points.

Models 3 and 4. Models 3 and 4 tested whether the Time 1 items and the Time 2 items would form two factors. The two models differed in that Model 4 had six correlated uniquenesses included like Model 2. Similar to Model 1, Model 3 did not result in a proper solution without including the correlated uniquenesses in the model. The model fit was poor (TLI = .38). Model 4 with six correlated uniquenesses included provided a much better fit to the data (TLI = .86), but was not as good as Model 2 positing four factors. Comparing Models 2 and 4, there was support for Model 2 positing four factors.

Models 5 and 6. Models 5 and 6 tested whether the 12 items would form a single factor. These two models differed in that Model 6 had six correlated uniquenesses included like Models 2 and 4. Similar to the previous models, Model 5 without correlated uniquenesses provided a poorer fit (TLI = .38) than Model 6 (TLI = .79). However, even Model 6 did not provide a reasonable fit with TLI = .9. There was therefore further support for the multidimensionality evidenced in Model 2.

Path Model

The path model (Model 7) was based on Model 2 that provided support for the multidimensionality of two self-concepts at two time points. The goodness of fit of the model is present in Table 2 and the solution of the model is presented in Table 3 (also see Figure 1). The model provided a good fit to the data (TLI = .99). The factor loadings and factor correlations were identical to those in Model 2. As expected, the paths from Time 1 Affect to Time 2 affect and from Time 1 Parent to Time 2 Parent were significant and large (β s = .82 and .92, respectively), leaving little variance to be explained by the other paths. Although small, the path from Time 1 Parent to Time 2 Affect was statistically significant (β = .05), indicating some noteworthy impact of prior parent relationship on subsequent academic affect after controlling for the effects of prior academic affect in Time 1. Although the impact was apparently small, this significant impact beyond the very strong effects of prior academic affect is definitely noteworthy.

Change of Self-Concepts Over Time

To test potential change in self-concepts over time due to the intervention of the PYJ program, the scale scores of factors before and after the program were compared. The means and standard

deviations of scores are reported in Table 4. Repeated-measures ANOVA found that both the students' self-concept of academic affect, $F(1, 2778) = 313.27$, $MSE = 0.13$, $p < .001$ and self-concept of parent relationship, $F(1, 2778) = 208.00$, $MSE = 0.08$, $p < .001$, improved over time. The results suggest that the PYJ program has been able to enhance the self-concepts of the students who failed previously in the school system of Hong Kong.

Table 3.
Solution of Path Model (Model 7)

Variables	T1 Affect	T1 Parent	T2 Affect	T2Parent
<u>Factor Loadings</u>				
Item 1	.72*	.63*	.75*	.67*
Item 2	.72*	.88*	.73*	.89*
Item 3	.81*	.73*	.79*	.75*
<u>Uniquenesses</u>				
Item 1	.48*	.60*	.44*	.55*
Item 2	.48*	.22*	.47*	.21*
Item 3	.35*	.47*	.37*	.45*
<u>Paths (From column to row variables)</u>				
T2 Affect	.82*	.05*		
T2 Parent	-.01	.92*		
<u>Factor Correlations</u>				
T1 Affect	--			
T1 Parent	.48*	--		
T2 Affect	.85*	.44*	--	
T2 Parent	.44*	.92*	.50*	--
Residuals	1	1	.28	.16*

Note: * $p < .05$. Figure 1 shows the ordering of variables. Parameters estimates are completely standardized. T1 = Time 1. T2 = Time 2.

Table 4. Means and Standard Deviations and Repeated-Measures ANOVA Results for Students' Ratings Before and After PYJ

Construct	Before		After		F (1,2778 df)	MSE
	M	(SD)	M	(SD)		
Affect	3.19	(0.78)	3.36	(0.78)	313.27**	0.13
Relationship	3.48	(0.77)	3.59	(0.77)	208.00**	0.08

Note: $N = 2,779$. ** $p < .001$.

Discussion

The results showed that prior parent-child relations tended to have a small but significant impact on subsequent academic affect beyond the effects of prior academic affect before PYJ. Thus students who had a good relationship with their parents before attending PYJ tended to like going to school even more after attending PYJ. This implies that parent-child relations could have noteworthy influences on a student's continued liking of school life. The results also support previous studies that have shown positive influences of parent-child relations on academic outcomes (e.g., Barber and Thomas, 1986; Cooper & Gersten, 2002; Enz, 1995; Felson & Zielinski, 1989; Hart & Behr, 1980; Holahan, Valentiner, & Moos, 1995; Hoyle & Leff, 1997; Lehr & Osborn, 2002; Thomas, 1986; Turner & Lapan, 2002; Verna & Spina, 2002; Wood, 2002).

There was also evidence that the PYJ program had been able to improve the students' self-concepts of parent relationship and academic affect. One might speculate that the improvement in the self-concepts of PYJ students by the end of the year could be due to some kind of grouping effect. Because our self-concept of competency is primarily based on our comparison with other

people (Marsh, 1986; Marsh, Kong, & Hau, 2001), when all the students in PYJ were grouped together in the program, their frame of reference was not as competitive as was in the high school where there were much brighter students. Given that Hong Kong schools probably have one of the most segregated school systems in the world (Tsang, 1992), this explanation may be plausible. At least it is plausible for self-concept of competency. Nevertheless, it does not seem to explain the affect component of self-concept that is the focus in the present study. There did not seem to be any good reason for these failed students to, all within one year, like schoolwork any more than they did in the past, unless it was the effect of the program itself.

Yeung et al. (2004) tested the effects of groupings of students with differential abilities. They found that by placing higher- and lower-ability students in the same group in an intervention program, the students' self-concept of competency could change due to either comparison or assimilation with their peers. However, they also found that the students' self-concept of affect tended to be stable. Thus, Yeung et al. (2004) demonstrated that despite a seemingly "defeated" self-concept of competency due to social comparisons and assimilations, students are less likely to change in their self-concept of affect. Thus, unless there was something special in the program, it would hardly have improved the students' academic affect from a mean score of 3.19 to 3.36. Hence, there seems to be evidence of the effectiveness of PYJ program in promoting lifelong learning in those students who had difficulty in coping with the conventional secondary curriculum.

It is interesting to note that the PYJ students' affect component of self-concept was already reasonably high at Time 1 ($M = 3.19$ on a 5-point scale). It seems that the students were willing to go to school even at the beginning of the PYJ program. Perhaps the provision of an opportunity to further education has given them new hopes and aspirations, and therefore improved self-concept of affect. Wong and Yeung (2002) have provided some preliminary evidence of what they called the "revival" of self-concept of students at risk. Thus the change from taking a conventional curriculum with which the low-ability students found difficulty in coping to taking a new curriculum with a more practical focus may have facilitated a revival of their self-concept. More interestingly, the PYJ program seemed to have further motivated the students such that there was a significant gain in the scores of affect from Time 1 ($M = 3.48$) to Time 2 ($M = 3.59$).

For parent relationship, similarly, the scores were high even at the beginning of the PYJ year ($M = 3.48$ on a 5-point scale). Apparently, the students in the present investigation had good support and care from their parents. Indeed, even though parental support to these students may not be exhibited explicitly as praise and rewards or implicitly in the form of moral support and encouragement, the willingness of the parents to pay the fees for their children to take the PYJ program should have a positive influence on the students' perceptions of parental care and support. However, the significant increase in the scores of parent relationship over time also suggests that the PYJ program may have further improved the students in this aspect. According to Shavelson et al. (1976), self-concept can be defined as an individual's perception of the self that is influenced by the environment. Thus, through interactions, an individual's self-concept is influenced by other people. Given the emphasis on interpersonal communication and relationship in the program, PYJ may have influenced the students in perceiving their interactions with other people, including their parents. That may explain the positive effects found in the Parent variable.

Whereas the gains in the two important variables over time suggest the effectiveness of the PYJ program, the most interesting finding is the significant impact of parent relationship on subsequent affect. Since the association between matching variables at Time 1 and Time 2 are known to be high ($\beta = .82$ for Affect and $\beta = .92$ for Parent in this study), there would be little variance left to be explained by the paths from nonmatching variables between Times 1 and 2. Hence even though the positive impact of parent relationship on subsequent liking of school seems to be small ($\beta = .05$), because the prior effects of both variables have been accounted for, this small positive impact after control for the Time 1 variables is worth some attention.

To sum up, the findings showed that the PYJ program that provides an alternative pathway for further education and that emphasizes the development of interpersonal skills could improve

students' relationship with their parents and their liking of school. Controlled for the effect of prior academic affect, prior parent-child relations were found to have a significant, though small, association with subsequent academic affect. Hence, the results supported the positive influence of parent-child relations on children's liking of school. These findings have important implications for a holistic approach to children's education by incorporating parent education as an important component of the education system.

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Appendix

Response Items and Alpha Reliabilities of Factors

Factor/Items	Alpha
<u>TIME 1 SELF-CONCEPT OF ACADEMIC AFFECT</u>	.79
Q2 I looked forward to classes.	
Q4 I enjoyed going to classes.	
Q7 I liked to go to school.	
<u>TIME 1 SELF-CONCEPT OF PARENT RELATIONS</u>	.78
Q6 My parents understood me well.	
Q8 My parents liked me.	
Q11 My parents treated me fairly.	
<u>TIME 2 SELF-CONCEPT OF ACADEMIC AFFECT</u>	.80
Q13 I looked forward to classes.	
Q15 I enjoyed going to classes.	
Q18 I liked to go to school.	
<u>TIME 2 SELF-CONCEPT OF PARENT RELATIONS</u>	.81
Q17 My parents understood me well.	
Q19 My parents liked me.	
Q22 My parents treated me fairly.	