

The Development of the Psychological Well-being:
An analysis of Taiwan Youth Project Year 2000-2005

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Youth Development in Taiwan: An analysis of the Taiwan Youth Project Year 2000-2005

I. The Taiwan Youth Project: Phase I (year 2000-2007)

The Study Background

Taiwan Youth Project (hereafter TYP) aims to study the trajectory of youth growth in Taiwan from the life course perspective (Elder, 1985, 1993, 1999). The project argues that significant social context, particularly family, school, community as well as the interplay of these three dominant institutions, accounts for various growth trajectories of the youth. For Phase I (2000-2007), the time frame is set from adolescence to young adulthood and the linkage between life experiences during adolescence and the subsequent developmental patterns during young adulthood are studied. To investigate the process of transition, we believe that beyond biological and psychological traits (Erickson, 1959), important social, structural, relational and personal resources factors need to be emphasized in order to provide a fuller picture of the social field where Taiwanese youth operate their daily lives. In addition, for this particular stage, the effect of the good student model which is resulted from the dominant cultural norms should be examined (Yi and Wu, 2004). An attempt is thus made to specify the indigenous developmental pattern of Taiwanese youth with a special attention to the possible negative outcome of deviation from the normative track. Hence, TYP is characterized by an analysis of social dimensions and the interplay of family, school and community is considered most relevant social mechanisms affecting various growth trajectories of Taiwanese youth.

The Research Focus

A notable trend of changing cultural tradition in Taiwan and in other Chinese societies is the gradual move from high collective to individual orientation (Yang, 1995). To capture the impact of changing norms in relation to the transitional period of the youth, besides general themes shared by most youth studies, selective issues pertaining to the Taiwanese context are incorporated. For example, in addition to the concept of autonomy reflected in the family process, spatial and community attachment associated with leaving home, or dating attitudes as well as friendship network formation, the concept of filial piety (Yeh and Bedford, 2003) in relation to elderly support, and the competition from examinations are highlighted. Two entrance examinations in the life course, namely the comprehensive test for entering senior high school as well as for entering college, dominate the daily life of youth. In order to show this overwhelming social pressure, TYP examines the cram class attendance

and constructs an innovative module on family strategy adopted. Since for a typical Taiwanese adolescent, academic outcome is often closely associated with personal well-being, the development of psychological well-being has been followed annually. Furthermore, the contrast between the normal group with continuing education in schools versus other off-course experiences such as drop-outs or teenager workers in the labor force often not only represents different growth trajectory, it also implies different developmental outcomes. In TYP, qualitative accounts are gathered to provide relevant explanatory information on this subject.

In brief, TYP examines the tracking process occurred during the transition from adolescence to young adulthood. Structural factors such as social class, gender norms, rural urban background and school resources are delineated. The turning point mechanism is further elaborated by studying family resilience observed among disadvantaged groups as well as by analyzing non-normative performance revealed by the well-to-do families. In other words, the social capital, indicated by interplay between family, school and community, serves as the underlying explanatory concept (Coleman, 1988; McNeal, 1999; Lin, 2002; Crosnoe, 2004) and its effect on the educational as well as on the occupational aspiration and achievement, along with the effect on the individual psychological well-being becomes the final outcome in the research framework. Enabled by the longitudinal panel design, TYP intends to describe various growth patterns of Taiwanese youth from adolescents to young adulthood. To achieve the intended goal, significant social mechanisms affecting values, attitudes and behaviors of youth which in turn account for the diverse life course patterns will be identified. For TYP Phase I, four main research goals are listed below:

- (1) To examine youth's developmental process by emphasizing the interplay of family, school and community.
- (2) To explore possible linkages between adolescence and young adulthood from the life course perspective.
- (3) To analyze the operation and the outcome of social capital on various growth patterns of youths.
- (4) To delineate diverse growth trajectories of Taiwanese youth during the transitional period.

Sample and Research Design

Large longitudinal panel sample of two youth cohorts is used as the baseline for all analyses. A preliminary principle is to sample the whole class of adolescents. In order to do that, multi-stage stratified sampling which considers urbanization

degree (3 strata for Taipei region and 2 strata for Yi-Lan), proportion of student population in each stratum, mean student number of class in each stratum is used and results in 41 classes for each of two cohorts (or 2700 students of 7th graders and 9th graders) in northern Taiwan . One of the parents, student's head master of the class and school principal of junior high are interviewed since the beginning year of 2000. The project is designed to follow the adolescents into young adulthood and will reach a closure for Phase 1 in year 2007 (attachment 1). During the process, dyadic in-depth interviews of selected 60 parent-youth samples are conducted. The qualitative study allows us to delineate specific mechanisms occurred during the transition from adolescent to young adulthood which affect non-normative or off-course experiences of the youth. Family resilience of lower class samples who achieved higher academic performance as well as downward mobility expressed by higher class samples who have low academic outcome are two major concerns.

TYP panel study is designed to follow adolescent samples from teenagers into young adulthood. The response rate has been satisfactory (attachment 2). After six waves of surveys, we are able to retain approximately 65% of the original sample in both youth and parent samples. The quantitative data across junior high to senior high and into college stages will allow us to analyze the social capital facilitating or impeding youth's development in the life course. As to in-depth qualitative interviews, the 60 selective parent-adolescent dyads represent samples from six occupational strata either with potential strength in family resilience or having off-course experiences. An attempt is made to explore specific social mechanisms operated at major turning points in the life course from the rich qualitative accounts.

Among the vast amount of cumulative datasets, the following analyses will focus on the changing trajectory of youth's psychological well-being and will use the interplay of family and school context for illustration.

II. The Development of Adolescent's Psychological Well-being: Family versus School Effects over the Developmental Course

The Research Issue

Most youth studies in the social science circle investigate typical subjects such as peer and parental influence on values and behaviors, academic achievement and occupational experiences, intergenerational transmission of values and behaviors, deviance and physiological reaction, individual psychological well-being (Gecas and Seff, 1990; Furstenberg, 2000; Yi, et al., 2004, 2006). Among East Asian societies,

the ascribed role for youth aged 12-18 has been obedient child and diligent student. Dominated by long hours of study at school, at the cram class at night and over the weekends, Taiwanese adolescents are expected to sacrifice recreation and leisure time for the goal of getting ahead in the comprehensive entrance examination (Yi and Wu, 2004). Among two such entrance examinations, getting into the desired senior high school has become more competitive than entering the college in Taiwan due to substantial expansion of higher educational institutions since the mid-1990s. This paper aims to explore possible effects of the competitive social milieu for youth development. We will focus on two major social institutions, namely family and school, and will examine their influence on the living experiences of Taiwanese adolescents. Several recent reports have documented the importance of social capital from family and school on students' academic outcome (McNeal,1999; Crosnoe,2004). This paper will study another aspect--the psychological well-being of the youth, and will analyze the family and school effects on the growth curve of Taiwanese youth.

For longitudinal panel data, the developmental course of psychological well-being as the outcome variable is clearly the most suitable research topic. Situated in the competitive context, Taiwanese youth needs to face the achievement concern from parents at home as well as from teachers and classmates at school. Furthermore, educational pressure may differ according to different years at school which represents different distance from the examination date. Therefore, to delineate the onset of individual psychological well-being, and to trace its development over time, especially the possible fluctuation toward the end of senior high school will allow us to ascertain the typical pattern revealed by Taiwanese youth in this particular life course.

Literature

Family and School as Important Social Capital

Family is the significant socialization agent for adolescents. Family capital or family-based social capital has been documented to influence the educational as well as the occupational achievement (Sewell and Hauser, 1975; Coleman, 1987, 1991; Teachman, 1987; Epstein, 1991, 1992; Hetherington, 1998; Crosnoe, 2004). McNeal made persuasive argument and clearly identified parental involvement, such as parent-child discussion over the educational matters at home and involvement in the parent-teacher organization at school, to be useful social capital contributing to adolescent's academic improvement (1999). In other words, parental involvement occurred at home or at school is an important social capital accounting for better

functioning of the youth. Although previous reports raise the question of parental help having negative relations with child's academic outcome (e.g., Horn and West, 1992) or not making significant effect (e.g., Epstein, 1991; Keith, 1991), parental involvement remains to be viable factor for adolescent development (McNeal, 1997; Coleman, 1991). The inconsistent finding is often explained by the reactive hypothesis as proposed by Epstein (1988) who contends that the negative outcome of parental involvement can be attributed to the fact that parents assist children who need help with school work. Furthermore, the utility of parental involvement, if indicated by the academic progress, is shown to be affected by the emotional component of parent-adolescent relations in the family (Carbonaro, 1998; Call and Mortimer, 2001; Crosnoe and Elder, 2004). Adolescents who have distant relations with parents have lower academic performance and are more likely not to benefit from the school-based capital (Crosnoe, 2004). The interplay between family and school is thus verified.

Another aspect worth noting is that most findings on adolescent development are consistent with Lareau's contention that social class difference results in different experience and perception of the educational institution (1989, 2003). Less resourceful youth, partly due to parental constraints in initiating interactions with teachers and partly owing to value held toward schools, tends to benefit less from the resourceful school setting. In other words, although there are reports indicating the importance of positive school environment for the success of disadvantaged students (Lee and Smith, 1997), more studies seem to suggest that the effect of parental involvement is magnified for upper class advantages students, but less likely to be transmitted for less resourceful students (Schneider and Coleman, 1993; Morgan and Sorenson, 1999; McNeal, 1999; Crosnoe, 2004).

The importance of parental involvement for youth development is illustrated by Crosnoe (2004) who argues that school-based social capital such as student-teacher bonding, parent-child relations in school or the average parent's education affects the academic outcome of adolescents. It is clear that family-related social capital at the aggregate level may function well in the school context. Therefore, the school environment is often proposed to be an important social capital resulting in different growth trajectory of the youth (Morgan and Sorenson, 1999; Harris, et.al., 2002; Crosnoe, et.al., 2003). However, perhaps limited by the data available, most school-related social capital is still indicated by various forms of parental involvement. A direct measurement of school capital, especially regarding the normative environment of the school, will greatly contributes to our understanding of mechanisms affecting the consequent growth trajectory of youth.

It is precisely the intention of this paper to delineate possible effects of family versus school based social capital in explaining the developmental course of Taiwanese youth. Since academic outcome appears to be a more focused subject, we will examine the psychological well-being as an important outcome in the youth development. The well-being issue is of particular salience for Taiwanese youth who are socialized under the competitive educational system on a daily basis. It will be interesting to find out what kind of impact the entrance examination and its related familial and school context has on students' psychological state.

The Psychological Well-being of Taiwanese Youth

Individual psychological well-being has been studied from various aspects. Besides the general happiness level or other composite scales (Amato and Sobolewsk, 2001; Liao, et al., 2005), depression is perhaps the most reported phenomenon (,????; xxx,請加入參考書目)。 From the life course consideration, academic performance and psychological well-being are two most important outcomes for a typical youth. More efforts seem to be put on how family and school resources affect the academic as well as the subsequent occupational development of the youth. On the other hand, studies on the psychological well-being of the youth which is often indicated by the depression scale have focused on the parental and peer influences, especially the emotional connection or the interpersonal relationship quality (Fitzpatrick, et.al., 2005; Haavet, et.al., 2005; Denny, et.al., 2004). This paper will use depression as the psychological outcome of the developmental trajectory of the youth. However, different from previous studies, normative and cultural dimensions pertaining to the family and school context will be analyzed and compared for their relative importance in explaining youth's depression level.

The Family Context

Family relation is undoubtedly the most salient factor accounting for the general psychological well-being of the youth. Parental support has been repeatedly shown to be positively related to better cognitive, behavioral and psychological outcomes (Gecas and Seff, 1990; Fitzpatrick, et al., 2005). The effect of family support as an important social capital serves as the protective factor reducing negative symptoms for the youth. This argument fits well with the buffering hypothesis proposed by Wheaton (1983, 1985) in that family support provides buffering function against the hazardous circumstances. Empirical evidence also supports the importance of family support and caring to be crucial for healthy youth development, especially for those exposed to risky environment (Denny, et.al., 2005). Nevertheless, most

relationship variables remain to be at the dyadic level between youth and one of his or her significant other. Since family culture or normative environment embedded in the daily family interaction usually exert important influence, it is imperative to examine the overall family relationship quality at the family level. In other words, whether family members usually cooperate/support or compete/hostile to one another plays as the structural opportunity or constraint at the family level and needs to be considered in explaining the individual psychological well-being.

On the other hand, parental control, especially in the form of monitoring behavior, has produced inconsistent findings. The key perhaps lies in the perception of the youth. Adolescents seeking greater freedom from parents may perceive parental control as coercive and react negatively to parent's authoritarian control (Baumrind, 1978; Peterson and Rollins, 1987; Bulcroft, et.al., 1996). Those who experience both high level of support and inductive control from parents may perceive the caring aspect from the authoritative parenting and tend to result in positive outcomes and to identify with parents (Ibid., Maccoby and Martin, 1983; Gecas and Seff, 1990; Owens, et.al., 1996). The more restrictive parenting style in the Chinese context—termed as “Guan”—has been illustrated in numerous reports (Shek, 1998; Chao, 1994). The major argument is that Guan has been a culturally prescribed parental responsibility and children who are objects of the socialization process are likely to perceive the positive aspect of the parental control. But the validity of Guan in terms of expected positive outcome between parent-child relations awaits further empirical examination. Since monitoring behavior is the most frequently observed parental practice in the Chinese context, it will be interesting to find out how it is related to the psychological outcome of the youth.

Results from Taiwanese setting point to similar patterns in that family relations --more so than family structure or significant family life events—appear to be the most significant factor explaining adolescent's depression (Pen, et al., 2004; Jou and Hsieh, 2004). Depression is further specified by different trajectories (Wu, et.al., 2004) and factors relating to its developmental patterns are shown to vary by different family dyadic relations (Wu and Li, 2001; Jou, 2005). In addition, family support is found to intervene between stressors and well-being with the expected buffering effect (Jou and Hsieh, 2004). More extreme negative family experiences, such as family disruption, physical or emotional neglect, result in depression as well as other destructive behaviors (Wu, 2003; Wu and Lei, 2001; Wu and Li, 2001). It is clear that the research concern mostly relies on typical relationship qualities among family members. To investigate possible effects beyond the dyadic level into family level

will contribute to our overall understanding of the dynamic process occurred within the family context. Given the non-individualistic orientation of Taiwanese society, the analysis of possible effects from family cohesion as well as from family strategy will make important additive values to the current literature on the psychological outcome of the youth.

The School Context

A recent trend of youth studies appears to be a special focus on the school context. Since most adolescents worldwide spent a substantial time at school, school experiences especially peer and teacher influences are assumed to play vital role for the youth development. Take the psychological well-being or depression studies for example. *Individual factors* such as school grades, peer relations, interaction with teachers, feelings toward or connections at school, and *school or class factors* such as violent or threatening circumstances, success pressure at school, class deviance level ((Jessor, 1993; Fitzpatrick, et. al., 2005; Wu and Lei, 2005; Denny, et. Al., 2004; Haavet, et. Al., 2005) have been documented to produce significant effects on the depressive syndrome youth expressed. These reports encompass adolescents from minorities in the U.S., students from a Scandinavian city, alternative education students from New Zealand as well as typical middle-school students in Taiwan. It can be seen that a common concern of factors accounted for risk-reducing versus negative life experiences is shared.

Furthermore, having someone at school whom adolescents can turn to in times of need or who is perceived as a caring person significantly enhance the psychological adjustment (Fitzpatrick, et.al., 2005). Here, teachers enter as potential candidates leading to the better adjustment of youth at school. A supportive teacher can increase feeling of safety for adolescent students (Jou and Hsieh, 2004) and will thus reduce the risk of depression (Wu, et.al., 2004). Peer group formation has received consistent attention in explaining the academic and social developmental trajectory of youth (Wigfield, et.al., 1998; Kane and Rouse, 1999; Cairns, et.al., 1995). To compare oneself with peers at school or at community may result in effects as suggested by the reference group theory (Bassis, 1977; Marsh and Parker, 1984). Specific findings evidence the importance of class context in the account of individual deviant behaviors for adolescents (Wu and Lei, 2005). Similar argument can be extended to the aggregate level in that class culture, whether be cooperative or competitive, will have impact on adolescent's psychological outcome. Since the latter perspective has been less explored, this paper will make special efforts to examine how class cohesion and competition function in affecting the individual

depression level.

Another aspect often investigated is the relative importance between family and school in terms of their effects on the youth development. Earlier studies proposed that parental influence, relative to that of peer's, seem to exert greater impact on the educational or future plan, but peer influence sustains its importance in lifestyles and other behavioral dimensions (Reed, et al., 1986, Smith, 1985; Gecas and Seff, 1990). More recent reports support the peer influence although families are considered to practice indirect influence through management strategies, including selecting suitable environment for adolescents to spend time (Lareau, 1997; Harris, 1998; Furstenberg, 2000). In other words, to compare the potential influence from the family versus the school context will allows us to delineate sources of specific mechanisms affecting the growth trajectory of the youth. It also provides basis for further analyses on the linkage between school versus family and the consequent development of the youth from the life course perspective.

Therefore, this paper will utilize the longitudinal panel data to investigate the development of psychological well-being of Taiwanese youth. Depression will be the indicator and the trajectory of depression from early adolescence (i.e., 12-13 years old or 1st year of junior high school) to middle adolescence (i.e., aged 18-19) will be the time span for examination. Given the particular educational system in Taiwan, the entrance examination from junior high to senior high which occurs after the 3rd year is assumed to be an optimal point for the majority of adolescents. The analysis will hence be directed to specify the beginning stage of the depression level, follow the growth curve to the peak, and capture the possible fluctuating slope after it. It is expected that the life course during middle-school years is variant for youth and is affected by family and school factors, particularly those reflecting the aggregate or beyond dyadic characteristics..

In short, this paper will examine the developmental trajectory of depression for Taiwanese youth. The study is characterized by several intended efforts:

1. To compare the relative importance of family versus the school context in explaining the depression level at different stages.
2. To illustrate the competitive educational environment as the structural constraints affecting the general youth development in Taiwan and in the East Asian region.
3. To develop innovative measurement of family- and school-based social capital
4. To utilize the ??? method suitable for the longitudinal panel data.

Methods

1. Data and Sample

Data are derived from a longitudinal panel study “The Taiwan Youth Project” conducted by Institute of Sociology, Academia Sinica, Taiwan. The first phase of this project is from 2000-2007 with eight wave surveys. The sample includes two cohorts--first year and third year junior high students—with an intention to follow up from adolescence to young adulthood. To consider the panel demands and sampling variation, three regions in northern Taiwan become the research loci and 1000 samples each for Taipei City and Taiwan County, 800 samples for Yi-Lan County are targeted numbers. Taipei city has been the largest metropolitan city in Taiwan while the economic activities in Yi-Lan are mostly agriculture-based, and Taipei county is in-between. Another critical principal for the sampling process is to use the clustering method which allows us to sample the whole class and consequently, will enable us to trace important transition, such as friendship formation and change.

Multi-stage stratified cluster random sampling procedure was applied. We first use different urbanization level and urbanization process to distinguish basic sampling strata. Three tiers for Taipei city and Taipei County, and 2 tiers for Yi-Lan County are determined.. Take a specific tier/stratum for example, sampling procedures are:

- (a) Within each stratum, expected sampling number is derived from the proportion of students in that stratum out of all students in the city/county
- (b) Next step is to calculate the mean student number of the class for that stratum so as to decide number of classes to be chosen.
- (c) The number of classes required for a specific stratum results in number of schools to be selected.
- (d) Finally, random process is used to select both sampling schools as well as two classes of junior 1 and junior 3 in each school. We sample the whole class.

40 junior high schools becomes our **sampling frame** with 16 in Taipei city, 15 in Taipei county and 9 in Yi-Lan county. 81 classes (including one special class of physical education) for both Junior 1 and Junior 3 are chosen. The first wave survey includes 2696 1st year and 2890 3rd year junior high students as well as one of their parents and their head master of the class in year 2000. The sample used for this paper is the Junior 1 sample or the 1st year student sample of junior highs. After six waves’ study, most samples have gone through the mandatory 3 junior high years and

3 senior high years, if they passed the entrance examination. The response rate is 68.27% in spring, 2005.

2. Variables

The Psychological Well-being

Table 1

Figure 1 還是這裡只講題目源由等，結果放到 result 的第一段??

Family Educational Strategy

As mentioned in the previous section, the entrance examination to senior high school is perhaps the most competitive and stressful event for most Taiwanese adolescents. In order to capture the family dynamics in the process, a scale of relevant, specific strategic items is constructed. Among these most often used methods, family strategy may be conceived as reflecting the social norm of being responsible and caring parents as well as the family expectation toward educational achievement. Family strategy is usually initiated by parents and applies to the adolescent (the exam-taker) as well as to other family members. Family strategy can be regarded as a common normative practice which varies according to different family resources, with higher SES families having more resources to provide more physical facilities or apply more self-restraint from the perspective of parents.

The scale is composed of family accommodation (e.g., parents decrease TV watching time, decrease social activities, ask other family members to yield to the adolescent), physical provision (e.g., provide better nourishment, arrange better space for study) and behavior monitoring (e.g., limit play time, limit TV time, limit phone/internet conversion, screen friend's interaction, etc.). Preliminary results show that (1) Parents and youth have different perceptions on the family strategy used: parents tend to perceive more family accommodation and less behavior monitoring while youth have reverse reports, but both parties coincide higher on the physical provision; (2) family strategy is significantly related to family resources: positive association is found between father's education, family income and the family strategy used, particularly the physical provision and behavioral monitoring (Yi, et.al., 2005).

For this paper, we will focus on the behavioral aspect, namely whether parents limit TV watching time, play time, phone or internet time and screen which friends to have interaction with. The longitudinal impact of parental monitoring behavior over junior and senior high years will be specified with an intention to verify if these typical Chinese parenting practices are conceived by the youth as 'caring' rather than control only.

Other Variables

Family Cohesion

Selected cohesive behaviors on the family level are asked each year during the junior high and again on the last year of senior high. Adolescents answer whether the following statement fit with their own family situation: In our family, we will discuss with each other when making decisions; every family member participates in the family related activities; I can always receive comfort from my family when I feel frustrated; I can rely on my family members when I need help or advise. It is clear that this family level variable is assumed to be the normative or cultural environment for adolescents and is expected to have direct impact on individual's depression syndrome over time.

Class Cohesion

Again, whether the statement fits with adolescent's perception toward class situation is raised: In our class, we always help each other; I don't like to interaction with my classmates; we like/love each other as if we are a family; sometimes our classmates do not cooperate with each other. Class cohesion is a class level variable and is taken to reflect the class culture which may serve as an opportunity facilitator or constraint toward individual depression. The consecutive answers from junior high years and the last year of senior high are used for analysis.

Class Competition

In addition to the pressure from being competitive for the coming entrance exam, adolescents are exposed to the inter-class competition at school as well. It is common for schools to rank the average score of each class in three semester exams. Class ranking serves as an indicator of academic progress at the group level. Taiwanese adolescents are aware of the relative ranking of own class compared with other classes. Hence, a question is asked: Comparing with other classes of the same year in your school, how is your class's academic performance? This question is regarded as another aspect of the school culture, with both class cohesion and class competition co-existing in the daily experience.

Teacher Involvement

Since class ranking is important for the status and the evaluation of the head master at school, it is not uncommon for teachers to show favorable attitudes toward students with good academic scores. This unintentional or intended act often arouses unfair feelings among the class and may influence individual's psychological state, especially when facing exam or progress pressures. It is also hypothesized that favoritism may produce positive effects to those who benefit

from it. We limit this question to the class level and ask: In our class, is your head master usually nicer to classmates who have better grades?

Academic Performance

For a typical Taiwanese student, better grade means not only better treatment at home and at school, it also brings about higher self-esteem. Under the competitive environment, other talents or specialties such as art and skills do not have the priority in the life experiences during adolescence. Hence, if academic performance is a significant factor accounting for adolescent's depression, it is definitely more so for the Taiwanese context. The salient effect of academic ranking or performance will be used as a control variable in the model. The indicator is the average score of the last semester.

3. Analysis (Chyi-in)

4. The Research Model

Results

1. The Psychological Well-being of Taiwanese Youth
2. Factors Accounted for the Development of Psychological Well-being

Conclusion

The Relative Importance of Family versus School Effects

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(Attachment 1)**TYP Phase I Data Collection: 2000-2007**

Sample	Respondent	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8
J3¹	Youth	2000	2000	2001	2002-2003	2004	2005	2006	
		J3. S.² (Self-Adm) ⁵	S1. F.³ (Phone)	S2 F. (Phone)	S3 F. (Interview)	C1 S.⁴ (Phone)	C2 F. (Interview)	C4 F. (Interview)	
	Parent	(Self-Adm)			(Interview)		(Interview)	(Interview)	
	Teacher	(Self-Adm)							
J1¹	Youth	2000	2001	2002	2002	2003	2005	2006	2007
		J1 S.	J2.S. (Self-Adm)	J3 S. (Self-Adm)	S1 F. (Phone)	S2 F. (Phone)	S3 S. (Interview)	C1 S. (Phone)	C2 S. (Interview)
	Parent	(Self-Adm)	(Self-Adm)	(Interview)			(Interview)		(Interview)
	Teacher	(Self-Adm)	(Self-Adm)	(Self-Adm)					
In-depth Interviews						2004/06-09	2005/06-09	2006/06-09	
						30 P-Y Dyad ⁶	30 P-Y Dyad	60 youths	
School Principal						2004/06 (Self-Adm)			

1. J3: Sample was 3rd year junior high in year 2000; J1: Sample was 1st year junior high in year 2000

2. J3.s indicates the survey was conducted in spring semester at the 3rd year of Junior High School.

3. S1.f. indicates the survey was conducted in fall semester at the 1st year of Senior High School.

4. C1 s. indicates the survey was conducted in spring semester at the 1st year of College.

5. Self-Adm: Self-administered

6. P-Y Dyad indicates household in-depth interviews with one parent and with youth.

(Attachment 2)

TYP Phase I Response Rate: 2000-2007

J3		Respondents											
Region	Initial Sample Size	W1 youth	W1 parent	W2 youth	W3 youth	W4 youth	W4 parent	W5 youth	W6 youth	W6 parent	W7 youth	W7 parent	
Taipei City	1065	1041	1011	936	923	793	772	683	748	749			
Taipei County	1177	1164	1152	1049	983	788	789	784	622	612			
Yilan County	648	646	637	557	544	491	505	427	452	506			
Total	2890	2851	2800	2542	2450	2072	2066	1894	1822	1867			
Response Rate%		98.65	96.89	87.96	84.78	71.69	71.48	65.53	63.04	64.6			
J1		Respondents											
Region	Initial Sample Size	W1 youth	W1 parent	W2 youth	W3 youth	W3 parent	W4 youth	W5 youth	W6 youth	W6 parent	W7 youth	W8 youth	W8 parent
Taipei City	1039	1039	1028	1029	1031	755	889	769	661	650	618		
Taipei County	1063	1058	1054	1060	1036	714	923	784	651	627	663		
Yilan County	594	593	584	594	596	554	542	475	514	522	456		
Total	2696	2690	2666	2683	2663	2023	2354	2028	1826	1799	1737		
Response Rate%		99.78	98.89	95.92	98.77	75.03	87.73	75.22	68.27	67.69	65.03		