

## **Social and Affective Outcome Indicators in the Inclusive Classroom**

**Phillip J. Moore**  
**The Hong Kong Institute of Education**

### **Abstract**

This paper describes the processes and outcomes of the development of a set of performance indicators in the affective and social domain for use in Hong Kong primary and secondary schools. A consultative process with major stakeholders (141 schools) guided the selection of specific areas within the domains. The samples for reliability, validity and norming included some 250 schools and 55,000 students. Overall, the final set of indicators was quite comprehensive, encompassing areas from self-concept, through interpersonal skills to leadership and goals in life. The APASO software, developed to allow schools and the system to readily gather and report outcomes, was well received by users. The paper concludes by drawing links to other research investigating the effects of inclusive practices on students' affective and social outcomes, suggesting that the indicators developed in this paper could be useful in examining those effects in Hong Kong.

### **Introduction**

This paper links with a number of themes of the conference, including “Evaluating outcomes of inclusive education” and “Managing change in special and regular education”. More explicitly, it focuses on:

- The development of affective and social indicators for Hong Kong primary and secondary schools;
- The development of software for easy access to profiles of classes/years and schools using the indicators;
- Training of school personnel to use the indicators and software; and
- The relevance of these indicators to the inclusive classroom.

In doing so, it draws upon a number of reports and presentations related to a competitively-bid project commissioned by the Education and Manpower Bureau (EMB) here in Hong Kong for which I was the principal investigator. My colleagues in the project included Dr Magdalena M.C.Mok, Professor Lorna K.S. Chan, Dr Lai Po Yin, Professor Lee Wing On, Dr Au Wing Kee, and Dr Chan Pui Kai.

Our goals in the project were to: establish a conceptual framework for affective and social outcomes of schooling; develop a set of valid and reliable indicators for assessing student performance in these domains; develop a system with software that would allow schools to readily gain a picture of their students' affective and social outcomes; and to design a sustainable system for use by the educational authority for measuring these outcomes. Quality assurance was a pervasive underpinning of the project.

Process Performance Indicators are pointers of evidence that reflect how well the education system operates. In Hong Kong, on the recommendations of the Education Commission in Report Number 7 (The Education Commission, Education and Manpower Bureau, 1997), a quality assurance framework was developed in 1998 with the aim of enhancing school involvement in the quality assurance processes. This framework incorporates both school internal self-evaluation and external review in the form of school inspections, aiming at continuous school self-improvement. It comprises four domains, namely, Management and organization; Teaching and learning; Support for pupils and school ethos; and Attainment and achievement. This paper describes the development of process Performance Indicators for the Attainment and achievement domain.

### **The Development of the Indicators**

A number of major factors influenced the selection of areas within the social and affective domains and the associated tools for measuring such outcomes. These were the Aims of Education in Hong Kong, the results of consultation with government officials, principals, teachers and parents, and the ecological validity for school practitioners. Each of these is considered briefly below:

**The Aims of Education in Hong Kong.** The September 1999 Draft Proposal (Education Commission Secretariat, Education and Manpower Bureau, 1999) indicates the overall aims of education as:

“To enable everyone to develop his/her potential to the full according to his/her characteristics in the moral, intellectual, physical, and aesthetic domains so that each individual is ready for continuous self-learning, thinking, exploring, innovating and adapting to change throughout his/her life; filled with self-confidence and team spirit; and is willing to strive incessantly for the prosperity, progress, freedom, democracy and the rule of law of the society, and to contribute to the future well-being of the nation and the world at large.”

The specific aims of school education cover 10 domains, six of which are relevant to the current project on affective and social outcomes. Each of these relevant domains is detailed below (Moore et al., 2002)

- Self-learning aptitude and ability
- Practical skills
- Psychological well-being
- Personal and ethical qualities
- Social life
- Social, political and civic awareness

These affective and social aims are consistent with the aims of education of many countries around the world, with individual (motivation to learn, well-being, personal and ethical attributes) and social ones (social life, social, political and civic awareness) being emphasized (Moore et al., 2002).

**The Results of Consultation.** As noted above, key stakeholders including parents, teachers, principals and government officials were consulted through questionnaires

and focus group interviews about their views on affective and social outcomes. A representative sample of schools was involved with the final sample consisting of 141 schools principals (66 Primary, 71 Secondary and 4 Special schools) returning their questionnaires. Of these 37 gave consent to be interviewed and for their schools to be involved. Because of scheduling and other logistical constraints, the final sample consisted of 13 interviews with principals. In addition, 101 teachers (46 Primary, 51 Secondary and 4 Special schools) from 27 schools and 73 parents (30 Primary, 39 Secondary, 4 Special schools) were involved in teacher focus group interviews and parent focus group interviews. Three government officials were also involved.

The major areas identified through these processes were:

- Interpersonal skills and relationships
- Understanding of one's emotions
- Self-concept
- Attitudes to learning
- Values (e.g. sense of responsibility)
- Students' role in the family (primary only)
- Life goals (secondary only)

**Ecological Validity for School Practitioners.** A comprehensive review of the literature on affective and social outcomes shows a vast number of areas worthy of consideration (See Moore et al., 2002). However, at the school level, it was apparent from the consultation process, especially with the teachers, that an emphasis on outcomes related to society and family were less of a concern. Moreover, teachers felt they could do little about those more global dimensions. On the other hand, they felt that outcomes related to understanding self (e.g. self concept), self and others (e.g. interpersonal relationships) and self and school (e.g. attitudes to school and learning) were more relevant to the schooling context, and more likely to be influenced by school factors.

**Selection Criteria of Performance Indicators.** In order to select indicators from the areas identified through the above processes, the following criteria were used (see Mok et al., 2002):

- Priorities were given to indicators with reported reliability and validity;
- Priorities were given to indicators suitable to Hong Kong school context, particularly those that had been used previously in Hong Kong
- Indicators were selected such that they were suitable for the age group in the study;
- Administrative factors (e.g. group administration versus individual administration) were considered for future smooth administration by school personnel;
- Time to complete should not be so long as to disrupt normal teaching and learning;
- The costs involved in acquiring the indicators and scales should be within reasonable limits in order for the project to be sustainable
- The availability of the indicators was an important consideration since the development of entirely new indicators is a lengthy process and may take years;

- The complexity of data output and analyses required should enable the Education and Manpower Bureau and school personnel to be self-sustainable in future applications;
- The suitability of indicators for computer application was also an important consideration.

### **The Final Set of Indicators**

All indicators were of the self-report type through questionnaires completed by students. The indicators covered Primary 3 to Secondary 7. The validation and reliability testing involved over 18,000 students and 109 primary and secondary schools. All the selected instruments met stringent reliability (Cronbach's alpha) and validity checks using Confirmatory Factor Analysis (Jöreskog & Sörbom, 1993) and evaluation of the output of various GFI indices (MacCallum & Hong, 1997) including RMSEA and GFI. For full details see Moore et al. (2001).

The Primary school set of indicators of 18 sub-scales is:

- Self-concept (Lau, 1995)
- Interpersonal relationships (Matson, Rotatori, & Helsal, 1983; Chung & Watkins, 1995; Scott & Scott, 1989)
- Attitudes to School (Ainley, Goldman, & Reid, 1990; Pang, 1999)
- Attitudes to Learning (Chan & Moore, 1997; Moore et al., 2001)
- Values (Hong Kong Youth Development Council, 1998; Moore et al., 2001)

The Secondary school set of indicators of 27 sub-scales is:

- Self-concept (Cheng, 1997)
- Interpersonal Relationships (Matson, Rotatori, & Helsal, 1983; Chung & Watkins, 1995; Scott & Scott, 1989)
- Attitudes to school (Ainley, Goldman, & Reid, 1990; Pang, 1999)
- Attitudes to learning (Biggs, 1987)
- Values (Hong Kong Youth Development Council, 1998; Moore et al., 2001)
- Emotional well-being (Alpert & Haber, 1960; Lau, 1990)
- Leadership (Hong Kong Youth Development Council, 1998; Moore et al., 2001)
- Goals of Life (Hong Kong Federation of Youth Groups, 1997; Hong Kong Commission on Youth, 1998)
- Expectations about Career (Hong Kong Commission on Youth, 1998)

Norming was conducted using a sample of some 37,000 students across 140 schools across all districts in Hong Kong. The norms are presented in the form of means, standard deviations and percentiles for:

- All Hong Kong schools
- Gender
- Grade level
- Age group
- Gender x Grade
- Age x Gender

To facilitate user understanding of the conceptual framework, the instruments, their potential and limitations, and the computer application, a Users' Manual was produced for school use. The Manual encompasses the following:

- General introduction to the indicators
- General administrative procedures and guidelines
- Tools
  - Background of assessment tool
  - Objective of tool
  - Year level(s) targeted
  - Format and item text
  - Psychometric properties
  - Administrative procedures /time required
  - Analysis and interpretation methods
  - Example application
  - Relevant publications
  - Strengths and limitations of tool
- Computer Applications. How to operate and interpret the software.

### **The Development of the Software**

A software package designed for use on Windows PC platforms for direct entry of data was developed and tested over a two year period. This is the Assessment Package for Affective and Social Outcomes (APASO). The high security system has front-end menus allowing access to questionnaires, school and class specifications, and data entry screens. In addition, the menu includes a report function which produces a variety of reports on year levels, classes, gender groupings, means and standard deviations and individual item response patterns, Embedded in the graphic and tabular outputs are the various relevant norms for Hong Kong students. These graphic and tabular displays can be printed for use in school reports etc. Data can be loaded into the system as well and the files can be electronically transported to central authorities for overall quality assurance monitoring.

Evaluation of the software by 1,178 teachers and government officials showed very satisfactory levels of user friendliness (mean 3.79, standard deviation 0.78 on 5 point Likert scale), helpfulness in understanding students' needs (mean 3.85, standard deviation 0.71) and helpfulness in planning student support programmes (mean 3.86, standard deviation 0.72). The Education and Manpower Bureau has established a dedicated web-site for APASO and is continuing to update the software.

### **Training of Teachers and Government Officials**

In order to facilitate the introduction of APASO into all primary and secondary schools in Hong Kong, over 50 training sessions were conducted in mid 2003 by Hong Kong Institute of Education team members. Some 1,300 teachers, principals and government officials were trained before they were given the software and materials developed in the project for use in their schools. Training was thus a prerequisite to being supplied any of the indicator materials and information. Evaluation of the training and the package (see above) showed positive reactions to the indicators, the underlying conceptual framework and the overall utility of APASO to guide school improvement. As a footnote, it is understood that all government school are currently using the indicator tool Quality of School Life (Ainley, Goldman, & Reid, 1990; Pang, 1999) as part of their quality assurance processes.

### **Relevance to the Inclusive Classroom**

Hong Kong has begun to more fully integrate students with disabilities into mainstream classrooms, beginning with concerted efforts in 1997. The theme of inclusion is also highly relevant to the current educational reform movement where whole person and all round development are appropriately emphasized. One way in which the effects of inclusive practices can be gauged is by using the indicators outlined in this paper: They are a contextually bound, relevant, reliable and valid set of self-report tools. In non-Hong Kong contexts, the effects of inclusion have been examined using similar methodologies. For example, inclusion effects on self-concept have been investigated (e.g. Cambra & Silvestre, 2003; Daniel & King, 1997; Vaughn, Elbaum, Schumm, & Hughes, 1998) as have the effects on interventions aimed at modifying self-concept (e.g. Elbaum & Vaughn, 2003). Interpersonal competence and social skills also have been examined in different educational settings (e.g. Farmer, Rodkin, Pearl, & Van Acker, 1999; Heinman & Margalit, 1998) as has the concept of loneliness (e.g. Pavri & Monda-Amaya, 2000). Finally, Murray and Greenberg's (2001) study of students' perceived relationships with their teachers and bonds with their schools would seem highly relevant to our gaining a better understanding of the effects of inclusion in the affective and social domains.

Of course, there are limitations in using student self-reports as the sole input and the author would certainly emphasize the employment of multiple sources of data (including teacher observations, parent reports) in any decision making regarding effects of inclusive practices.

### **Concluding Comments**

This paper has attempted to outline briefly the outcomes of a large project designed to develop a set of relevant, reliable and valid performance indicators in the affective and social domains for use in Hong Kong primary and secondary schools. The final set of indicators emerged from substantial consultation with major stakeholders (141 schools) and the involvement of some 250 schools and 55,000 students in the reliability, validity and norming process. The APASO software package developed concurrently with the indicators provides schools with ready access to their students' profiles on each indicator and users have commented positively on its utility and user-friendliness. Importantly, the indicators now provide schools with ready ways to examine the effects of inclusive practices on their students' feeling about themselves, their attitudes to learning and school, their interpersonal skills, values, and emotional well being as well as leadership, and goals for career and life.

### **Acknowledgements**

The author wishes to thank his colleagues, the principals, teachers, parents, students and Education Officials involved in this project. This project was financially supported by the Quality Education Fund in the form of a consultancy project from the Education Department, Hong Kong SAR.

## References

- Ainley, J., Goldman, J., & Reed, R. (1990). School organization and the quality of schooling: A study of Victorian government secondary schools. *ACER Research Monograph*, 29, [Microfiche]. (ERIC Document No. ED 286263)
- Alpert, R., & Haber, R. N. (1960). Anxiety in academic achievement situations. *Journal of Abnormal Social Psychology*, 61, 207-215.
- Biggs, J. (1987). *Learning process questionnaire manual*. Melbourne: Australian Council for Educational Research.
- Cambra, C., & Silvestre, N. (2003). Students with special educational needs in the inclusive classroom: Social integration and self-concept. *European Journal of Special Needs Education*, 18 (2), 197-208.
- Chan, K. S. L., & Moore, P. J. (1997). *Development of attributional beliefs and strategic knowledge in years 5 to 9: A longitudinal analysis*. Papers presented at the AARE annual conference, Brisbane.
- Cheng, C. H. K. (1997). *The self-conceptions of Hong Kong adolescents: Conceptual measurement, and process perspectives*. A thesis submitted to the Degree of Doctor of Philosophy in the Faculty of Education at the University of Hong Kong.
- Chung, C. H., & Watkins, D. (1995). Evaluating a social skills training program for Hong Kong students. *Journal of Social Psychology*, 135 (4), 527-28.
- Daniel, L. G., & King, D. A. (1997). Impact of inclusion education on academic achievement, student behavior and self-esteem, and parent attitudes. *The Journal of Educational Research*, 91 (2), 67-79.
- Elbaum, B., & Vaughn, S. (2003). For which students with learning disabilities are self-concept interventions effective? *Journal of Learning Disabilities*, 36 (2), 101-108.
- Farmer, T. W., Rodkin, P. C., Pearl, R., & Van Acker, R. (1999). Teacher assessed behavioral configurations, peer assessments, and self-concepts of elementary students with mild disabilities. *The Journal of Special Education*, 33 (2), 66-80.
- Heinman, T., & Margalit, M. (1998). Loneliness, depression, and social skills among students with mild mental retardation in different educational settings. *The Journal of Special Education*, 32 (3), 154-163.
- Hong Kong Commission on Youth. (1998). *Study on civic awareness and moral values of youth*. Hong Kong: Home Affairs Bureau.
- Hong Kong Federation of Youth Groups. (1997). Young people's outlook on life. *Youth Poll series No. 41*. Hong Kong: Hong Kong Federation of Youth Groups.
- Hong Kong Youth Development Council. (1998). *Assessment and research on personal development of secondary students and survey report on Hong Kong adolescents development indicators*. [On-line]. Available: <http://www.youthcouncil.org.hk>
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Chicago, Ill.: Scientific Software International.
- Lau, S. (1990). Crisis and vulnerability in adolescent development. *Journal of Youth and Adolescence*, 19 (2), 111-131.
- Lau, S. (1995). *Psychological adjustment in the development of primary school children: A longitudinal study*. Hong Kong: Center for Child Development, Hong Kong Baptist University.
- MacCallum, R. C., & Hong, S. (1997). Power analysis in covariance structure modeling using GFI and AGFI. *Multivariate Behavioral Research*, 32 (2), 193-210.

- Matson, J. L., Rotatori, A. F., & Helsal, W. J. (1983). The matson evaluation of social skills with youngsters (MESSY). *Behavioural Research and Therapy*, 21, 335-340.
- Mok, M. M. C., Moore, P. J., Chan, K. S. L., Lai, P. Y., Au, W. K., & Lau, N. W. (2002, January). *The development and norming of performance indicators in the social and affective domain for secondary and primary schools*. Paper presented at the 15<sup>th</sup> International Congress for School Effectiveness and Improvement, The Danish University of Education, Copenhagen, Denmark.
- Moore, P. J., Au, W. K., Chan, K. S. L., Chan, P. K., Lai, P. Y., Lee, K. T., et al. (2001). *Development of Performance Indicators for measuring primary and secondary students' performance in affective and social domains: Final report submitted to the Education Department, Hong Kong SAR*. Hong Kong: The Hong Kong Institute of Education.
- Moore, P. J., Chan, L. K. S., Lai, P. Y., Mok, M. M. C., Au, W. K., Lee, W. O., et al., (2002, January). *The development of a conceptual framework for a system of Performance Indicators on social and affective outcomes of schooling for primary and secondary students*. Paper presented at the 15<sup>th</sup> International Congress for School Effectiveness and Improvement, The Danish University of Education, Copenhagen, Denmark.
- Murray, C., & Greenberg, M. T. (2001). Relationships with teachers and bonds with schools: Social emotional adjustment correlates with children with and without disabilities. *Psychology in Schools*, 38 (1), 25-41.
- Pang, S. K. (1999, July). *Students' quality of school life in Hong Kong*. Paper presented at the National Forum on the Social Outcomes of Schooling, Surfers Paradise, Brisbane, Australia.
- Pavri, S., & Monda-Amaya, L. (2000). Loneliness and students with learning disabilities in inclusive classrooms: Self perceptions, coping strategies and preferred interventions. *Learning Disabilities & Practice*, 15 (1), 22-33.
- Scott, R., & Scott, W. A. (1989). *Adjustment of adolescents: Cross-cultural similarities and differences*. NY: Routledge.
- The Education Commission Secretariat, Education and Manpower Bureau. (1997). *Quality of school education*. Hong Kong.
- The Education Commission Secretariat, Education and Manpower Bureau (2001). *Review of education system. Education Commission's revised draft proposal on aims of education* (as of 22.9.1999). [On-line]. Available: <http://www.info.gov.hk>.
- Vaughn, S., Elbaum, B. E., Schumm, J. S., & Hughes, M. T. (1998). Social outcomes for students with and without disabilities in inclusive classrooms. *Journal of Learning Disabilities*, 31 (5), 428-436.

