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Australian and Thai Children's Self-Concepts: Similarities and Differences

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ABSTRACT

The cross-cultural measurement of student self-concept involves several major problems. Despite these problems, this study involved the translation and administration of a highly reliable and valid self-concept questionnaire, the Self Description Questionnaire (SDQ) to a large sample (N = 831) of Thai grade 6 and 7 students. Item analysis revealed satisfactory item-scale correlations, with few weak items. Factor analysis of item pairs produced eight well-defined factors with the same self-concept structure as had been found in five other countries. High internal consistency coefficients for each of these eight scales indicated that the SDQ possesses acceptable reliability for use with Thai children. Gender, grade and geographical location differences are discussed in the paper.

Relatively few cross-cultural studies of children's multi-dimensional, as opposed to global self-concept, have been conducted. There are a number of reasons why the structure and level of self-concept which are inferred from the same instrument, administered in different countries, may vary in such comparisons. First, the meaning of some words in self-concept items may differ. "I am good looking", for example, may mean different things to a Thai and an Australian boy or girl. Second, even if the meaning of the words is the same, children's willingness to describe themselves in either favourable or unfavourable terms may vary from country to country. In the present study, for instance, it was anticipated that Thai children would be less willing to say they were physically attractive than Australian children (Suvannathat 1979). Third, the relationship between the various dimensions of self-concept may differ in cross-cultural comparisons. Finally, differences in self-concept levels according to gender and social class may vary because of different socialisation practices experienced by children in each country.

Nevertheless, a small number of studies have produced findings suggesting that cross-cultural comparisons of the structure, if not the absolute level, of children's self-concept, are worthwhile. Before some of these studies are reviewed, it is necessary to define what is meant by "self-concept". While there have been many definitions of this controversial construct, most

definitions agree that it involves an individual's self-perceptions of their qualities and abilities across a broad range of experiences considered important to them and their society. Shavelson, Hubner and Stanton (1976), for instance, defined self-concept as a person's perceptions of himself or herself, formed through experiences with significant others such as parents, peers and teachers, and influenced by attributions of one's own behaviour. These authors proposed a multidimensional, hierarchical model of the structure of self-concept, beginning at the lowest level with specific experiences which are organised by the individual into multiple self-concept dimensions which ultimately combine into a general assessment of one's worthiness as an individual. Shavelson's influential model has been empirically tested by several independent researchers (eg. Byrne, 1984; Marsh and Smith, 1987; Watkins and Gutierrez, 1989) and demonstrated to be a useful model of conceptualising children's self-concept structures in Australia, the United States, Canada, the United Kingdom and the Philippines.

Most of the early attempts to measure children's self-concept were omnibus instruments based loosely on the conception of self-concept as a global, undimensional construct (Marsh and Smith, 1982). A meta-analysis by Hansford and Hattie (1982) showed that global measures of self-concept were only marginally better than chance predictors of school achievement. Marsh and Smith (1982) found that two widely used self-concept measures were factorially impure. They were not achieving their own goal of measuring general self-concept. Since Shavelson's multi-dimensional, hierarchical model of the structure of self-concept was first proposed in 1976, there have been a number of attempts to measure multiple dimensions of children's self-concept. The most widely cited instruments are Harter's Perceived Competence Scale (Harter, 1982) and Marsh's (1988) Self Description Questionnaire (SDQ). It is beyond the scope of this article to review the merits of both instruments. Rather, it was decided to use the SDQ for this cross-cultural study because it was based on the Shavelson definition and model of self-concept which were adopted as the most appropriate conceptualisations for use in this research.

The SDQ has been administered to large samples of children in several urban areas of Australia (Marsh, Parker and Smith, 1983), in the United States (Marsh and Hocoavar, 1985), Canada (Byrne and Shavelson, 1986), the United Kingdom (Marsh and Smith, 1987) and in the Philippines (Watkins and Gutierrez, 1989). These cross-cultural studies, conducted by several independent researchers, have demonstrated the generality of the findings that the SDQ is a reliable and valid measure of student self-concept. Cross-cultural comparisons have important practical implications for the generalisability of the responses to the SDQ and for its use in various countries. If the SDQ factor structure is not reasonably well-defined for responses by students from a different country, then its use in that country may not be justified. If the SDQ factor structure is not reasonably constant across samples from various countries, then the relationship between the SDQ factors and other variables, such as school achievement in several subjects, found in Australian studies may not generalise to research in other countries. Even when the factor structures are reasonably constant, if mean responses to the SDQ scales by students from various countries are different from those of Australian students, then the two sets of responses may not be directly comparable and the SDQ Australian norms may not be appropriate for use elsewhere. To the extent that the structure of self-concept inferred from responses to the SDQ that are invariant across several countries, then the broader use of the SDQ is justified, even though comparisons of self-concept levels may not be warranted. In that case, different national norms are required for each country. The cross-cultural study of self-concept, then, has important theoretical and practical implications.

In Canada, Byrne and Shavelson (1986) administered three academic and the General Self SDQ scales, together with other multi-dimensional self-concept

scales, to a large sample of students. They found that the SDQ factor structure was well-defined for these four factors. They did not attempt to make direct comparisons of the self-concept levels on these four SDQ scales between Canadian and Australian students. They reasoned that such comparisons were inappropriate because of the problems associated with different cross-cultural interpretations of superficially similar items (Hui and Triandis, 1985). Even though the Australian and Canadian cultures share British Commonwealth traditions there are also many cultural differences between the two countries, cultures and socialisation practices.

In England, Marsh and Smith (1987) collected SDQ responses from 303 preadolescents drawn from a random sample of nine elementary schools located in urban areas of Lancashire. A series of confirmatory factor analyses indicated that the factor structure of the English children's responses, and that of Australian children, were reasonably invariant. The eight first-order factors in both samples were made up of almost identical items from the eight SDQ scales. When self-concept levels were compared, the English and Australian students were found to have similar self-concept mean scores for seven of the eight SDQ factors. General School self-concept was the only dimension where a difference was recorded. Gender differences in SDQ dimensions were also found to be similar for English and Australian preadolescents. Boys had higher self-concepts in Physical Abilities, Appearance, Peer Relations and General Self, while girls were higher in Reading and General School self-concept. No gender differences were found in Parent Relations of Math self-concept. The similarity in self-concept of English and Australian children does not necessarily mean that their self-concepts are the same. Different processes may have been used to formulate self-concepts by the two groups of students, but these processes resulted in very similar factor structures and group mean scores. While Australia is a derivative society from that of Britain, the interpretation of cross-cultural comparisons must be made cautiously.

In the Philippines, Watkins and Gutierrez (1989) administered the SDQ, in its original English version, to 194 students attending a public high school in Manila. Item analysis and internal consistency coefficients of reliability were found to be encouraging. Item analysis revealed only four of the 76 items to have corrected item-scale correlations of less than 0.20. These weak items comprised only 5 per cent of the total number of SDQ items. The internal consistency coefficients for the eight SDQ scales ranged from 0.85 for Math self-concept to 0.61 for General self-concept, with a mean of 0.71. While these reliability figures are somewhat lower than the Australian average of 0.80, the researchers claim they are "quite encouraging considering the Filipino context, where English is not the first language, and the relatively short scales of the SDQ" (Watkins and Gutierrez, 1989, p.406). In the latter point, they are referring to the fact that each of the eight SDQ scales is composed of only eight positively-worded items. Factor analyses generally supported the existence of both the eight relatively independent factors previously found in other samples across several countries, and an underlying general factor. Consistent with Australian and English samples, Filipino boys tended to rate their Physical Abilities more highly than girls. Also consistent was the finding that these Filipino students were quite positive in their self-ratings, with a mean item response rate of 3.81 out of a possible five points. The authors concluded that "the findings generally were in accord with the validity of both the SDQ and the Shavelson model of self-concept for Filipino subjects" (p.401).

The distinctive feature of the present research is that, for the first time, the SDQ has been translated into a foreign language and administered to a large sample of Thai elementary and secondary school students. In previous cross-cultural research using the SDQ, the cultures chosen for comparison have been Western or the Filipino culture which has a long history of Spanish and then American influence. Thailand is the only Asian country which has never been

colonised by a Western power and so the Western influence is not as strong as in most other Asian nations. While Thailand is modernising and becoming a Newly Industrialised Country (NIC), its strong Buddhist tradition balances the increasing Western influences (Bhanthumnavin, 1985). The present study attempts to determine whether previous consistent findings using the SDQ as a measure of student self-concept generalise to a Third World country where the language and culture are substantially different from other countries where the SDQ has been administered.

METHOD

Subjects

The sample consisted of 831 Thai students in grades six and seven in Thai public schools. Fifty-five per cent of the sample attended schools in the capital, Bangkok, and 45 per cent were enrolled in public schools in the province of Chonburi on the East Coast of Thailand, approximately 100 kilometres from Bangkok. Five grade 6 classes (the final year of elementary school) and five grade 7 classes (the first year of secondary school) were administered the self-concept questionnaire in Bangkok schools, while six grade 6 and four grade 7 classes in provincial schools completed the questionnaire. The Bangkok schools were chosen by the Director of the Behavioral Science Research Institute as being representative of Bangkok public schools, while the Chonburi schools were selected by a member of the Psychology Department at Srinakharinwirot University, Bangsaen Campus, as being representative of public schools in that province. The average age of the Thai sample was 12 years and one month at the time of testing.

Table 1 outlines the sex x grade distribution of the sample

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This table indicates that the proportion of students in grades 6 and 7 is almost equal, while girls outnumbered boys by 57 per cent to 43 per cent.

Instrument

The measure of self-concept used was the Thai version of the Self-Description Questionnaire (SDQ) (Marsh, 1988). This is a 76 item pencil-and-paper, self-rating questionnaire which was translated into Thai by a psychologist at the Behavioral Science Research Institute, Bangkok. It was back-translated into English by an independent Thai applied linguistics student in order to check for similarity with the original English version of the SDQ. Very few modifications were required from the English SDQ. Previous research with Australian samples had demonstrated that the eight scales of the SDQ possess high internal constancy estimates of reliability (average 's of 0.80 according to Marsh, Smith, Barnes and Butler, 1983), as well as moderate construct validity (Marsh, Smith and Barnes, 1984).

The SDQ measures three dimensions of academic self-concept and four non-academic facets derived from the Shavelson model, as well as a General Self scale based on the Rosenberg (1965) self-esteem inventory. Preadolescent students are asked to respond to simple statements, such as "I'm good at mathematics" and "I make friends easily", using one of five response categories: false, mostly false, sometimes false, sometimes true, mostly true and true.

Each of the eight SDQ scales is composed of eight positively expressed items. The remaining 12 negatively worded items in the SDQ were included to minimise the possibility of a response bias likely to occur if all items were positive statements. A brief description of the eight SDQ scales follows:

1. Physical Abilities (Phys) - student ratings of their ability and enjoyment of physical activities, sports and games;
2. Physical Appearance (Appr) - student ratings of their own physical attractiveness, how their appearance compares with others, and how others think they look;
3. Peer Relations (Peer) - student ratings of how easily they make friends, their popularity, and whether others want them as a friend;
4. Parent Relations (Prnt) - student ratings of how well they get along with their parents and whether they like their parents;
5. Reading (Read) - student ratings of their ability in and enjoyment/interest in reading.
6. Mathematics (Math) - student ratings of their ability in and enjoyment/interest in mathematics;
7. General School (Schl) - student ratings of their ability in and enjoyment/interest in all school subjects; and
8. General Self (Genr) - student ratings of themselves as effective, capable individuals, who are proud and satisfied with the way they are.

Procedure

The Thai version of the SDQ was administered to a total of twenty intact classes of grade 6 and 7 students during regular school hours, according to standardised procedures outlined in the test manual (Marsh, 1988). The average number of students in each class was approximately 40. The questionnaires were administered by psychology research students attending one of two campuses of Srinakharinwirot University in either Bangkok or Chonburi province, under the supervision of a Thai psychologist. The SDQ administration was completed in 20-30 minutes.

RESULTS

Item Analysis

Item analysis of the eight SDQ scales revealed only one weak item with a corrected item-scale correlation coefficient below 0.20 (Hull and Nie, 1984) Table 2 indicates that the vast majority of items had moderate item-scale correlations, ranging from a mean of 0.44 for General self-concept to 0.67 for Mathematics with a mean coefficient of 0.54. When the four scales Physical Abilities, Appearance, Peer and Parent Relations were combined into a Non-academic group scale, only three out of a total of 32 items were found to have item-scale correlations of less than 0.20. For the Academic group scale consisting of Thai Reading, Mathematics and General school self-concept, no items recorded item-scale correlations of less than 0.20, indicating that there were no weak items in this combined scale. The Total scale, consisting of seven Academic and Non-academic scales, possessed only four weak items. The mean item analysis results for the three combined scales of Non-academic, Academic and Total self-concept were 0.41, 0.51 and 0.42 respectively, indicating that these scales were not as unidimensional as the scales of which they were composed.

Insert Table 2 here

Reliability

Internal consistency coefficients () of reliability for each of the eight SDQ scales also appear in Table 2. The 's ranged from 0.74 for Peer Relations and General self-concept to 0.89 for Mathematics self-concept, with a mean of 0.82. these reliabilities are very

close to the levels of internal consistency achieved with the large Australian normative sample (Marsh, 1988), ranging from 0.80 to 0.92. The combined Non-academic, Academic and Total self-concept scales obtained internal consistency coefficients of 0.88, 0.91 and 0.93 respectively. These reliability figures are also close to those reported in the SDQ test manual (Marsh, 1988) of 0.91, 0.92 and 0.94 respectively. These internal consistency coefficients demonstrate that the Thai version of the SDQ is a highly reliable instrument.

Factor Analysis

An exploratory factor analysis using iterated communality estimates, a Kaiser normalisation and an oblique rotation was carried out on paired items from each of the eight scales (Hull and Nie, 1984). An eight-factor solution appears in Table 3.

Insert Table 3 here

It can be seen in Table 3 that the factor loadings for each of the eight self-concept dimensions are consistently high on the factor it was designed to measure. Most factor loadings exceed 0.60, with only two of the 32 loadings being less than 0.30. In addition, the off-factor loadings are almost zero, none exceeding 0.30. This pattern of factor loadings indicates that the eight factors are well-defined and relatively distinct, with no pair of items contributing significantly to factors other than the one it was designed to measure.

Gender, Grade and Location Differences

Table 4 outlines the mean scores for Thai boys and girls in grades 6 and 7 across all eight SDQ scales. Two-way ANOVAs revealed that Thai girls possessed more positive self-concepts than boys in Peer Relations, Thai Reading, General School and General self-concept, while boys were higher than girls in Physical Abilities. No overall sex differences were reported for Physical Appearance, Parent Relations or Mathematics Self-concept.

Insert Table 4 here

When the Academic scales of Thai Reading, Mathematics and General School self-concept were combined, girls were generally more positive about their abilities than boys, although an interaction effect indicated that this difference was more pronounced at grade 6 than at grade 7. The combination of the Non-academic scales of Physical Abilities, Appearance and Relations with Peers and Parents revealed that Thai boys were slightly ahead of Thai girls. An interaction effect this time indicated that this difference was more pronounced at grade 7 than 6.

When all seven scales, excluding the General self-concept scale, were combined to give a Total self-concept score, there was no gender or grade difference, but again an interaction effect occurred. Grade 6 girls were generally more positive about themselves than grade 6 boys, but the reverse was true for grade 7.

There were few overall grade differences. Grade 7 students were less positive about their Physical Appearance than grade 6 students. A highly significant ($P < .001$) interaction effect indicated that grade 7 girls were more critical of their appearance than either grade 6 girls or grade 7 boys. Another genderXgrade interaction effect revealed that grade 6 girls had lower Physical Abilities self-concept than either grade 7 girls or boys in

general. Several of the gender differences in favour of girls were more pronounced at the grade 6 rather than the grade 7 level. These included Thai Reading, General School and General Self-concept.

Only one of the eight SDQ scales produced a significant location effect between Bangkok and provincial students. Students attending Bangkok schools were more positive in their ratings of Mathematics self-concept than were Chonburi students. This scale was primarily responsible for a significant Academic self-concept difference ($p < .001$) in favour of the Bangkok students. When seven of the eight SDQ scales (excluding General self-concept) were combined into a Total self-concept scale there was a small significant difference ($p < .05$), again in favour of the Bangkok students.

Finally, it is noted that this sample of Thai students was generally positive about its personal qualities and abilities. The mean item response to the SDQ was 3.54 out of a possible five points, which indicates a negatively skewed distribution, with more responses at the higher than lower end of the scale. As expected, Physical Appearance was the most lowly rated out of the eight scales, suggesting that Thai students are most modest about this dimension of self-concept.

DISCUSSION

The above findings have clearly demonstrated that the SDQ is a highly reliable instrument for measuring the multidimensional self-concept of Thai children. Its items comprised eight well-defined factors measuring eight relatively distinct self-concept dimensions. The generality of the SDQ's factor structure has been extended to another country, Thailand, in addition to Australia, the United States, Canada, the United Kingdom and the Philippines. The significance of these findings is that the SDQ has been demonstrated to be a reliable and valid measure of student self-concept in a variety of cultures and, for the first time, when translated into a language other than English.

Some interesting similarities and differences in sex differences have been reported between Thai children's self-concepts and those of children in other countries. Thai girls have consistently rated themselves more positively than boys in several academic dimensions. This sex difference has also been found in Australia and the United Kingdom, where girls also generally rate their Reading and General School self-concept more highly than boys (Marsh and Smith, 1987). On the other hand, Thai girls also were more positive in Peer Relations and General self-concept, areas where boys have tended to be more positive than girls in Australia and the United Kingdom. In the dimension of Physical Abilities self-concept, Thai boys have responded more positively than girls, which is a common finding in Australia, the United Kingdom and the Philippines (Marsh and Smith, 1987; Watkins and Gutierrez, 1989). Incidentally, Physical Abilities self-concept was the only SDQ scale to produce a gender difference in the Philippines sample (Watkins and Gutierrez, 1989).

Thai girls rated their Physical Appearance as highly as Thai boys, whereas Western girls tend to be more critical of their appearance than boys (Wylie, 1979). The fact that Physical Appearance self-ratings were lower than any of the other seven SDQ scales leads to the conclusion that Thai students tend to be more modest about rating themselves on their Physical Appearance than Western children (Marsh, 1988).

The pattern of self-concept gender differences favouring Thai girls, especially in the Academic self-concept dimensions, is related to impression gained by the author of the relatively higher proportion of Thai women in leadership positions in the professions and business than in Australian society. One could speculate that the more buoyant self-concepts developed in childhood lead more Thai women to aspire to these positions than is the case in Australia. Another possible explanation may be that the presence of more female role models in higher status employment leads to higher aspirations on the part of Thai girls. These explanations, of course, are not mutually exclusive.

Self-concept differences by location were few. Only one of the eight SDQ scales, Mathematics self-concept, was significantly more positive for Bangkok students over provincial students. This contributed to an Academic self-concept advantage of Bangkok

schools. The Total self-concept difference in favour of Bangkok students was statistically significant ($p < .05$), but in view of the large sample size ($N=831$) is probably of little educational significance. The higher mathematics self-concept of Bangkok students may have been due to better qualified teachers in this subject in the capital than in provincial schools.

The present study has provided promising data on the reliability and factor structure of a self-concept instrument which was translated and administered in a cross-cultural context. While the SDQ meets the requirements of high internal consistency as a criterion of reliability, further research will involve measuring the stability of SDQ responses over a one-year period. Second, it has been demonstrated that the SDQ possesses an invariant, well-defined factor structure even when translated into a foreign language and administered in a Third World country, as well as when the original English version is employed in such diverse cultures as Australia, the United States, Canada, the United Kingdom and the Philippines. Future research will seek evidence of the SDQ's validity by correlating self-concept scores in Mathematics and Reading with achievement scores in these two school subjects. The Thai version of the SDQ appears to have high face validity, as indicated by the high level of interest in completing the questionnaire. Finally, no direct comparisons between absolute self-concept levels of Thai as compared with Australian, English or even Filipino children have been made because of the problems associated with cross-cultural interpretations of superficially similar questions (Hui and Triandis, 1985).

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