



IQ and academic achievement among Australian students from Chinese
and Vietnamese backgrounds

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SUMMARY

The aim of the research was to investigate factors influencing the academic achievements of Australian students from Chinese and Vietnamese backgrounds. Based on Flynn's (1989b, 1991a) hypothesis and research conducted with Asian Americans (e.g., Stone, 1992), it was predicted that there would be an IQ/achievement gap for students of Asian background such that IQ would underestimate their academic achievements. It was proposed that there are two possible interpretations of this effect. It is plausible that the gap is the result of IQ test bias such that the tests are not providing an accurate absolute measure of the intellectual abilities of these cultural groups, and their achievements are a better indication of their intellectual potential. On the other hand, a more popular explanation is that socio-cultural motivational factors are serving to boost the achievements of these ethnic groups beyond what would be predicted by IQ. Research from a variety of disciplines has identified potential factors such as a traditional (East Asian) cultural emphasis on the value of education, strong beliefs in the role of effort, and a greater investment of effort in learning and education. It was proposed that Sue and Okazaki's (1990) theory of relative functionalism could accommodate many of the findings from sociological, educational and psychological perspectives. Therefore, socio-cultural motivational factors were investigated under the broad framework of Sue and Okazaki's theory, with particular emphasis on their proposed folk theory of success for Asian Americans: "If I work hard, I can succeed, and education is the best way to succeed" (p. 919).

Three studies were conducted. The first study investigated the IQ, speed of information processing, achievement, time spent studying and causal attributions for a sample (N = 40) of Australian university students from Chinese and Anglo-Celtic backgrounds. The results did not provide evidence for an IQ/achievement gap for the

Chinese Australian students, although the nature of the sample introduced the possibility that ceiling effects had limited the outcome. The results did show the Chinese Australian students spent considerably more time studying than their Anglo-Celtic Australian peers, although all students endorsed effort as the most important determinant of academic success and failure. It was concluded that a sample of primary school students would provide a broader range of abilities and achievements; and hence a better test of the relationship between these factors.

The second study was a more comprehensive investigation of Flynn's hypothesis with a sample of Australian school children ($N = 160$) from Chinese, Vietnamese and Anglo-Celtic backgrounds. Variables were those included in the initial study. The main results of this study revealed that the Chinese and Vietnamese Australian children had significantly higher mathematics grades, spent more time doing homework and were more likely to desire an occupation that required tertiary qualifications than their Anglo-Celtic Australian peers. Moreover, there was evidence of an IQ/achievement gap for mathematics achievement for the students from Asian backgrounds, such that these students received higher maths grades than their Anglo-Celtic Australian peers with the same levels of ability. However, time spent studying and occupational aspirations did not account for the group differences in achievement and it was concluded that these factors are part of a more complex socio-cultural package that contributes to these children's achievements. In particular, it was argued that parents play an important role in both studying and aspirations and these factors may interact to produce high achievement.

Therefore the third study was an investigation of Chinese and Vietnamese parents' expectations and aspirations. Based on North American research and Sue and Okazaki's theory, it was predicted that Chinese and Vietnamese parents would set

higher standards for their children's academic performance and would have higher aspirations for their children's education, compared with Anglo-Celtic Australian parents. It was also predicted that Chinese and Vietnamese parents would provide a home environment that is more conducive to studying. These hypotheses were largely supported by a survey of approximately 240 Chinese, Vietnamese and Anglo-Celtic Australian parents.

It was concluded that the high achievements exhibited by students of Asian background in the U.S. and in the present research are due to a combination of cultural, sociological and psychological factors. Consistent with Sue and Okazaki's theory, it appears that Chinese and Vietnamese families place a strong emphasis on the value of education, and have high educational aspirations for their children, who in turn invest considerable effort in their studies. These values and behaviours combine to enhance the academic achievements of Chinese and Vietnamese students.