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Abstract

There is evidence from a range of sources that indicates that South and East Asian background students are academically outperforming their peers in Australian primary and secondary schools (see, for example, Khoo and Birrell, 2002; Marks et al., 2000; Mcinerney, 2008; Paar and Mok, 1995). This evidence ranges from tertiary enrolment figures and the enrolment statistics of academically selective programs, through to school achievement records and research studies. Several explanations for the superior academic outcomes have been posited by researchers. These have included their work ethic, motivation and aspirations, and the support and expectations of their parents. While these explanations have some appeal for educators, they have not been brought together into one theoretical construct. Therefore, this chapter will examine these differences between the South and East Asian background students and their peers in Australian schools through the analytical lenses of the actiotope model of giftedness (Ziegler, 2005) and its logical companion, a systemic approach to giftedness (Ziegler and Phillipson, 2012).

Keywords

asian, mentoring, schooling, curriculum, factor, mother, tiger, australian, context, students

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Chapter 9 - The 'Tiger Mother' factor: Curriculum, schooling and mentoring of
Asian students in an Australian context

by

Wilma Vialle

Running head

The 'Tiger Mother' Factor

Abstract

From the mid-nineteenth century, China has been one of the most enduring sources of immigration to Australia. Of the 27% of school-age students who have a language background other than English (LBOTE), Chinese Australians remain the largest proportion of these school enrolments. Evidence suggests that Chinese Australian students, along with other Australians from a South or East Asian background, are outperforming their peers in Australian schools. The academic success of South and East Asian students in Australia has been variously attributed to their work ethic and motivation as well as parental expectations and support. This paper examines the evidence for, and the stereotypes surrounding, the academic performance of South and East Asian students in Australia. The paper synthesizes evidence from a number of research projects with data obtained from students, parents and teachers. It draws on Ziegler's actiotope model of giftedness and a systemic approach to giftedness in order to explain the high achievement patterns of these sub-groups of Asian Australians.

KEYWORDS: actiotope model of giftedness, Asian Australian, academic performance, Tiger mother

Introduction

There is evidence from a range of sources that indicates that South and East Asian background students are academically outperforming their peers in Australian primary and secondary schools (see, for example, Khoo & Birrell, 2002; Marks, Fleming, Long, & McMillan, 2000; McInerney, 2008; Paar & Mok, 1995). This evidence ranges from tertiary enrolment figures and the enrolment statistics of academically-selective programs, through to school achievement records and research studies. Several explanations for the superior academic outcomes have been posited by researchers. These have included their work ethic, motivation and aspirations, and the support and expectations of their parents. While these explanations have some appeal for educators, they have not been brought together into one theoretical construct. Therefore, this chapter will examine these differences between the South and East Asian background students and their peers in Australian schools through the analytical lenses of the actiotope model of giftedness (Ziegler, 2005) and its logical companion, a systemic approach to giftedness (Ziegler & Phillipson, in press).

Historical background

Australia prides itself on being a multicultural country that has forged its identity on the varied immigration patterns of the last two centuries. It is an island continent, with nearly 22 million inhabitants, and calls the nations of Asia and the South Pacific its closest neighbors. While the first wave of immigrants to Australia was largely British, Chinese immigration has been significant since the gold rushes of the mid-nineteenth century. In his book, *Big White Lie: Chinese Australians in White Australia*, John Fitzgerald (2007) details the long history of migration from China to Australia, pointing out that at the time of Federation (1901) Chinese immigrants numbered about 100,000. Fitzgerald indicates that the Chinese-Australian communities were characterized by extensive social networks that permitted strong integration into their new country despite prevalent racism. He also argues that the Chinese immigrants were strong supporters of Federation in Australia as it seemed to offer the liberty and fairness that were consistent with their cultural values. The White Australia policy, based

on irrational fears of the “yellow peril” or “reds under the bed” and in effect until 1973, severely restricted non-White immigration from 1901. Following the abandonment of this policy, though, non-White immigration has again expanded but the governmental restrictive emphasis on skills and professions affects the make-up of contemporary Asian immigrants to Australia.

The 2006 census data (Australian Bureau of Statistics, 2006) indicated that approximately 9% of the Australian population are from an Asian background but over 16% of the population of the two largest cities, Sydney and Melbourne, are Asian Australians. The proportion is even greater in school-aged children with approximately 27% of public school enrolments coming from a language background other than English (LBOTE), the majority of whom are Asian in origin (ACARA, 2011). In common with the experience of other Western nations, there is a strong perception in Australia that Asian Australian students are out-performing all other ‘migrant’ populations as well as indigenous and Anglo Australians. The stereotype depicts the Asian student as a diligent, highly-motivated individual aided in his or her educational journey by “tiger mother” (Chua, 2011) parents who are stern disciplinarians and hold high expectations of their offspring. In this chapter, I will examine the evidence for the academic success of Asian students in Australia and the explanations given for their scholastic performance. Drawing on Australian research and Ziegler’s Actiotope model (2005), the pathways to excellence for Asian students in Australian schools (Ziegler, 2005) are explored.

Academic outcomes of Asian students

There are multiple indicators that point to the relative academic success of Asian Australian students in secondary schooling, particularly the sub-groups whose backgrounds are from South and East Asia. Among these indicators are the general trends found in academic outcomes for Asian-background students in many Western countries; the enrolment data of Asian Australian students in tertiary education in Australia; and, the enrolment data of Asian Australian students in academically-selective high schools in the two major Australian cities,

Sydney and Melbourne.

Research has consistently demonstrated superior academic outcomes for Asian-background students compared to their counterparts in Western countries (Coleman et al, 1966; Flynn, 1991; Hsia, 1988; Pieke, 1991; Schneider et al, 1994; Suzuki, 1980; Vernon, 1982). This achievement pattern has been supported by research in Australian schools (see, for example, Khoo & Birrell, 2002; Marks, Fleming, Long, & McMillan, 2000; McInerney, 2008; Paar & Mok, 1995). Walkey and Chung (1996) found similar patterns of Asian 'superiority' in a study of New Zealand schoolchildren. McInerney's (2008) cross-cultural research in Australian schools found higher Mathematics and English academic outcomes for the Asian Australian students compared to the Anglo, Lebanese and Aboriginal students in his study. Analysis of the 2009 PISA results show that first-generation students (that is, children who were born in Australia but whose parents who were foreign-born) performed significantly higher than Australian-born students (that is, children who were born in Australia with at least one parent also born in Australia) in mathematical literacy and the higher levels of reading literacy (Thomson, De Bortoli, Nicholas, Hillman, & Buckley, 2010). While these figures include students from all foreign nations, Asian Australians make up the largest proportion of first-generation students.

In Australia, the superior performance of Asian students is more evident in students from East and Southeast Asian nations and for those who belong to nations with a Confucian value system (Dandy & Nettelbeck, 2002b). Contrasting with these studies were the findings of an earlier study by Dandy and Nettelbeck, which failed to find achievement differences for Asian Australian students over Anglo-Celtic Australian students (Dandy & Nettelbeck, 2000). However, the small, select sample may have confounded the results in that study, with ceiling effects a strong possibility. Although the measures of academic success differ across these studies, there would seem to be some support in the research literature for a higher than expected performance of Asian students in Australian schools.

Researchers have also pointed to the higher levels of participation in tertiary education of Asian students compared to other groups (Marginson, 2004; Marks, Fleming, Long, & McMillan, 2000). Marginson (2004) indicated that in 2001, overall participation by many Asian groups in higher education was about double that of other cultural groups. He observed that Chinese background students represented 1.34% of higher education enrolments, double that of their population ratio of 0.62%. Other Asian groups over-represented in higher education included those from Hong Kong, Taiwan, India and Malaysia (Marginson, 2004).

A more dramatic illustration of the high academic outcomes of South and East Asian students is the pattern of selective high school enrolment in Sydney and Melbourne. Selective high schools are government-funded schools that require students to pass an entrance examination focused on literacy and numeracy. Entry into such schools is highly competitive and, thus, only the top-performing students are successful in gaining a place. The top ten performing selective schools in Sydney, according to their Year 12 student outcomes¹, have very high enrolments of students who are first- or second-generation Australians². While exact proportions are unavailable, Chinese and Indian background students dominate, with smaller representations of other Asian nations rounding out the enrolment. As Table 9.1 illustrates, the top Sydney selective high school, James Ruse Agricultural High School, boasts a total of 97% LBOTE students and only one school in the top ten has fewer than 80% LBOTE students.

Table 9.1 about here

Selective high school enrolments in Melbourne are similar to the Sydney schools in their

¹ In New South Wales, students sit statewide examinations in each of their subjects at the end of Year 12. The students' scores on these examinations are combined with in-school assessments to attain a standardized score for each subject and are reported in their Higher School Certificate (HSC). The ranking of schools is calculated on the number of HSC subject scores of more than 90 attained by students when compared with the total number of students in the school.

² First-generation students are those who were born in Australia but whose parents were born overseas; second-generation students are the offspring of first-generation Australians.

cultural make-up. In 2010, Melbourne High School (MHS), for example, was the top-performing high school in the state of Victoria based on its students' Year 12 results, which over the last decade have averaged 95%³ with 15-20% of students scoring above 99%. The school enrolls approximately 350 boys each year from a pool of up to 2000, all of whom sit the entrance examination. Applicants also need to demonstrate high academic achievement and a commitment to co-curricular activities. Current enrolment records indicate that two-thirds of the student body come from a South or East Asian background (Melbourne High School, 2010). Interestingly, the school's long history as a dominant force on the Australian Rules football grounds has been replaced by a shift to badminton and table tennis as the dominant sports, reflecting the shift in the cultural make-up of the school. The motto of the school is "Honour the work and the work will honour you", a statement that accords well with the stereotype of the work ethic of the Asian student. While many schools include generic statements about maximizing every student's potential, Melbourne High School's website provides a more detailed and specific focus on expectations of academic excellence. This is reflected in its philosophy of "providing a safe, secure and stimulating learning environment in which students can reach their full educational potential in a positive school culture that engages and supports them in their learning" and of "a strong commitment to academic excellence" (Melbourne High School, 2010).

The 'My School' website (ACARA, 2011) indicates that MHS's sister school, MacRobertson Girls' High School, has a 93% LBOTE population with South and East Asian students dominating this cultural make-up. In previous years, MacRobertson Girls' High School has out-performed its brother school. Its website, too, places emphasis on academic excellence and co-curricular involvement.

³ Students' Year 12 final results are standardized to a score out of 100 across all students in the state of Victoria. An average of 95% in this context indicates that the mean score for Melbourne High School Year 12 students has been in the 95th percentile for that period of time.

While these high proportions of LBOTE students in selective schools may be seen as an indicator of their academic success generally, this effect is moderated by patterns of public (that is, government-funded) versus private schooling (that is, schools which are largely funded by school fees). Migrant families from South and East Asia are typically selecting the public schooling option for their offspring. In all the suburbs with concentrations of Asian migrants, the local public schools have a higher proportion of Asian Australian students enrolled than expected according to their proportion of the total population of students in those suburbs. According to Ho (2011), this pattern reflects a deliberate choice by migrant families for the public system, particularly into academically selective schools, which are producing outstanding academic results. By contrast, Anglo Australian families are dominating enrolments in the independent sector (Ho, 2011). The impact is that many of the top selective high schools in New South Wales (particularly Sydney) have become enclaves of LBOTE students (see Table 1). Jakubowicz (2009) suggests that this is “a withdrawal from intercultural interaction, into monocultural isolation” (p. 4).

The actiotope model of giftedness

There has been an assumption that LBOTE migrant groups may fare worse in school because of language difficulties (Marginson, 2004), although evidence shows that in Australia, Chinese and some Vietnamese succeed at school but also maintain their home language (Marginson, 2004). The counter-assumption is that migrant groups may perform better at school because of a strong desire to recoup their investment in migration. For example, Inglis (2003) observed that the “lodestone for migrant families is the educational success of their student children, which is *the* key to upward social mobility” (p.144). However, as Ogbu and Simon (1998) have argued, not all migrant groups have fared equally well in the schooling systems of “settler societies” such as the United States and Australia. If we accept the indications that South and East Asian students are scholastically performing better than expected, comparative to their proportion of the population, the question becomes why they

do so well. Ziegler's (2005) actiotope model provides a strong theoretical foundation to explain these differential educational trajectories.

In an earlier chapter in this volume, Ziegler (see chapter XX) presents a model for giftedness that challenges the 'trait' view that has dominated much of the literature in the past. The actiotope model proposes that giftedness is not the attribute of an individual but is something that develops over time as individuals interact with their environments. A critical element in the actiotope model is the action repertoire, which is defined as the "sum total of all the actions that a person is basically capable of executing" (Ziegler & Stoeger, 2008, p. 224). The question posed by Ziegler and Stoeger (2008), as to why some individuals are more successful in expanding their action repertoire and thereby attaining excellence, goes to the heart of the attempt to explain the apparent Asian⁴ superiority in scholastic achievement in Australian schools.

The actiotope model, therefore, provides a systemic approach to understanding the achievements of Asian Australian students. Ziegler (in press) has also proposed that Bourdieu's notion of 'capital' is a useful frame for understanding the development of these actiotopes. Ziegler (in press) elaborates the concept of capital by identifying 'learning capital' as those resources that are unique to the individual and are used to support their learning, and 'educational capital' which refer to the societal resources that support their learning. Each of these is further divided into five sub-categories. Learning capital includes the sub-categories of organismic, actional, telic, episodic, and attentional, while educational capital includes economic, cultural, social, infrastructural, and didactic (see Ziegler, in press, for details). Most of these categories are relevant to the patterns we have identified in Asian students in Australian schools and will be elaborated in the following section.

⁴ For the sake of brevity the term 'Asian' from this point forward will be used for the sub-groups of South and East Asian students who are the subjects of the various research studies included in this chapter.

Why do they do so well?

Various explanations have been offered in the research literature as to the relative academic success of Asian Australian students. The major explanations include the following:

1. genetic factors such as IQ;
2. selective migration patterns;
3. work ethic and effort;
4. motivational patterns, including attitudes to school and goal orientation; and,
5. parental support.

These explanations will be examined in the following pages.

One early explanation for the superior performance of Asian students in Western schools was that there were genetically-based group differences in the IQs of East Asians (Herrnstein & Murray, 1994; Lynn, 1987; Vernon, 1982). Among the first to challenge this explanation, however, was Flynn (1991). Utilizing his theory of IQ gain over succeeding generations, Flynn reanalyzed the data from IQ-based research and determined that there was no difference between the means of the Asian Americans and their American counterparts (see, also, Dandy & Nettelbeck, 2002b; Stevenson, Stigler, Lee, Lucker, Kitamura, & Hsu, 1985; Stone, 1992). While there may be little or no difference in measured IQ for various Asian groups, Dandy and Nettelbeck's (2002b) research with Vietnamese, Chinese and Anglo Australian students revealed that the Asian students out-performed their equivalent IQ Anglo students in mathematics achievement.

Selective migration has also been proposed as a factor in the strong academic performance of Asian students in Western countries (Hirschman & Wong, 1986). The argument is that better educated migrants will produce and nurture offspring who are more educationally oriented. Current migration policies in Australia, for example, favor those with a professional skill-set (Marginson, 2004). The valuing of education as a tool for social mobility, though, transcends

such migration policies (Sue & Okazaki, 1990). Sue and Okazaki's (1990) theory of 'relative functionalism' purports that the relationship of one's cultural values to the demands of navigating and succeeding in a new environment is crucial. Thus, relative functionalism would point to the alignment of Confucian values of effort and reward with many Asian immigrants' belief in education as a means to upward mobility. Nevertheless, there is insufficient research evidence to indicate what part this might play in Asian Australian school attainments.

The stereotype that Chinese and other Asian students work harder than their Western counterparts has received a great deal of support in the research literature (Caplan et al, 1992; Chang, 1985; Dandy & Nettelbeck, 2002b; Hau & Salili, 1990; Ho, Salili, Biggs, & Hau, 1999; Lau & Chan, 2001; McInerney, 2006; Otsuka & Smith, 2005). Lau and Chan's (2001) study of high-, low- and under-achieving Hong Kong high school students, for example, demonstrated that all three groups most frequently attributed their academic performance, good and bad, to effort. This theme of associating academic outcomes with the amount of effort expended is reflected in research with Asian Australian students who report spending more time on their studies than did Anglo Australian students (see, for example, Cresswell, 2004; Dandy & Nettelbeck, 2002b; McInerney, 2006). While Dandy and Nettelbeck (2002b) found Asian Australian students spent more time studying than Anglo Australians, though, this was not independently correlated with achievement outcomes. The researchers contend that study time and aspirations combine with sociocultural variables associated with ethnicity (such as parental expectations) to explain the differential outcomes. From Ziegler's (in press) perspective, the students' attentional learning capital (represented by their allocation of time to study) and telic learning capital (their aspirational goals) interact with the cultural and social educational capital provided by their parents' values.

Examining the data from a number of research projects my colleagues and I have conducted from 2002, the work ethic in Asian students is established early and continues throughout

schooling (Quigley, 2002; Vialle, in press; Vialle & Quigley, 2002; Vialle & Tischler, 2004). One typical example is Jie-Qi⁵, a preschooler who informed her mother that she preferred Preschool A to Preschool B because the former allowed her to work hard and she found that more interesting (28/08/10)⁶. Another study we conducted in a Sydney primary school revealed that the Chinese Australian students, as early as Kindergarten and Year 1, would complete their work at school and then go home to complete further “homework” set by parents or grandparents (Quigley, 2002). Finally, at high school, the Asian Australian students demonstrate these work patterns in their comments about effective teaching. For example, in research examining the qualities of effective teachers of gifted students, respondents were required to complete a survey that included open-ended questions (Vialle & Quigley, 2002). Approximately 6% of the respondents (N = 25) indicated that they were Asian Australian students. An analysis of their open-ended responses revealed that they were far more likely than their non-Asian Australian peers to reflect on their own behaviors when responding to the prompt, “Please describe what makes an effective teacher.” The following statement sums up the sentiment expressed by the majority of the Asian Australian students: “I believe that, if a student is not willing to work hard, it is better for that student to not be in the class at all.” The students indicated they were not only willing to work hard themselves but expected it of their teachers as well. Again, an illustrative comment was “teachers should have the willingness to devote time after school to helping students.”

Research has shown that the Asian Australian cohort of students is far more likely to hold positive attitudes to school (Cresswell, 2004) and to direct its attentive resources to learning (see, for example, Ainley, 1995; McInerney, 2008). This factor has been shown to be correlated strongly with academic outcomes in the Wollongong Youth Study, a longitudinal research study of 900 secondary school students (Vialle, Heaven & Ciarrochi, 2007). The

⁵ Pseudonyms are used for all respondents

⁶ Dates provided in this format refer to raw data collected on that date.

students are willing to spend significant time at home and with tutors to ensure that their mastery of content is assured. This approach that the Asian Australian students take to their learning at school is an example of the attentional learning capital identified by Ziegler (in press).

Closely related to the work ethic of Asian Australian students are their motivation patterns. Some cross-cultural research has focused on the construct of motivation in an attempt to explain the superior academic performance of Asian students in schooling and on international measures such as PISA and TIMSS (see, for example, Eaton & Dembo, 1997; Leung, 2002; Stevenson & Lee, 1996). Eaton and Dembo (1997) suggested that East Asian Americans, for example, set higher goals for themselves and judged their performance more stringently, thereby encouraging them to expend more effort to attain those goals.

While acknowledging the potential contribution of lower levels of absenteeism on their academic performance, McInerney's (2008) motivation research revealed that the Asian Australian students had higher levels of mastery orientation, valued and liked school, and aspired to higher education to a greater degree than do their peers. Peer influence on motivation was also reported as a more positive influence for the Asian students. McInerney's research suggests a difference in degree rather than kind on motivational variables, a finding that was later supported by a comparative study of Hong Kong and Australian students' achievement motivations (Martin & Hau, 2010). An analysis of PISA data conducted by Cresswell (2004) found that Australian students from Chinese backgrounds had higher levels of instrumental motivation (that is, learning is motivated by external factors such as employment) than their peers.

Ziegler's (in press) concept of telic learning capital is reflected in the motivation and aspirations that Asian Australian students hold for their schooling. As McInerney (2008)

indicated, Asian Australian students are more likely to have goals that are aligned with a mastery orientation. Similarly, the students in my research on effective teachers also demonstrated a clear focus on mastering the content of their academic subjects, which was reflected in the high expectations they had of teachers to facilitate their attainment of their achievement goals (Vialle & Tischler, 2005; Vialle & Quigley, 2002). Ziegler (2005) proposed that goals within the actiotope model need to be mediated to be optimal. The students were proactive in seeking mentors that would assist them in working towards their goals, as the following excerpts from interviews illustrate.

- I always look for a teacher who gives individual help to students;
- A good teacher understands students' needs, knows what we want to know, thinks from our perspective, respects our opinion and our way of logical thinking;
- My ideal teacher is willing to dedicate extra time and energy so students can excel;
- A teacher becomes a mentor for me when they are asking questions (of students), and accepting questions (from students);
- To improve this class, we need more tutoring opportunities and more time to talk with teachers during class time/school time. (28/2/06)

The motivation to perform well at school and to master the content that will lead to the successful attainment of vocational aspirations is a strong theme in my current research with Asian Australian secondary school students. The students consistently talked in these focus group interviews about their desire to master the curriculum and perform well, indicating that they expected to work hard (unpublished raw data). The following comments are typical of their interview responses to questions about the effective teacher:

- is willing to help his students achieve their goals [student 4];
- does not waste time [student 17];
- covers all the material, doesn't digress [student 8];

- an ineffective teacher does not convey that he/she expects students to work hard and do well [student 24];
- the class would be better with more worksheets but with non-repetitive questions [student 11]. (28/2/06)

Asian Australian students were more likely to appreciate the intellectual characteristics of their teachers than were other groups of students. In a study of selective school students' perceptions of effective teachers (Vialle & Quigley, 2002), we administered the Preferred Teacher Characteristic Scale. This instrument is a 36-item forced-choice questionnaire that asks students to select an intellectual (is an expert) or personal (has a sense of humor) characteristic for each item. Personal characteristics are scored 0 and intellectual characteristics are scored 1, yielding a total score between 0 and 36. The closer the score is to 0, the greater is the preference for personal characteristics. The mean of the overall sample (N=387) was 10.27 compared to the mean of 19.88 for the sub-group of South and East Asian students (N=25), indicating that the Asian Australian students were far more appreciative of their teachers' intellect and subject expertise than the other students. Notably, in the Asian sub-group, 10 was the lowest total score of any student.

While interview data from the overall sample described effective teachers, drawing on a blend of personal and intellectual characteristics, the Asian Australian students were far more focused on how teachers could facilitate their academic outcomes. Typical comments from the Asian Australian students include the following descriptions of an effective teacher:

- good, clear precise explanations [student 14];
- well organised, consistent method and medium for getting material across (allows students to get into an efficient pattern) [student 16];
- someone who presents clearly the theory of things [student 22];

- being able to cover all subjects “one time”, taking time to make sure everything was learnt thoroughly [student 3];
- knowledge/interest in subject [student 7];
- knowledgeable, covers all curriculum [student 13];
- good teaching strategies, mainly according to students’ way of learning, not unclear, know what they are saying and that students know too (your logic doesn’t necessarily work for us) [student 25];
- clear explanation of the subject matter and the objectives of the course, effective supervision of homework completion [student 19]. (28/2/06)

Parents concur, deliberately inculcating the motivation to work hard and achieve highly in their offspring. Several parents indicated in interviews that children could excel with the right motivation and work ethic. For example, one mother stated that the “learner needs to understand that effective learning strategies are derived from motivation” (20/3/11). The principal of the top-performing selective school in New South Wales echoed the sentiments of the parents: “Student achievement is more to do with motivation, the high value their families place on education and the support they receive” (8/6/11). Her observation was reflected consistently in comments made by teachers in other selective schools, who attributed the academic success of their Asian students to the latter’s motivation to attain very clear academic and vocational goals. Again, this reflects their telic and episodic learning capital.

Some of the Australian teachers interviewed, however, were vocal in condemnation of the narrow focus of those goals. For example, one deputy principal indicated that some of their students would be motivated to work hard to attain their Licentiate of Music Australia⁷ (L. Mus. A) qualification and then give up playing once they had attained the milestone to focus

⁷ The L. Mus. A is the highest level of performance awarded by the Australian Music Examination Board. It requires students to have achieved near-perfect mastery of their instrument.

instead on their remaining academic subjects (9/6/11).

The Asian Australian students' motivational patterns and goal orientations illustrate the concept of episodic learning capital. As Ziegler (in press) has posited, episodic learning capital involves bringing together individuals' goals with context-relevant action patterns to enhance their learning. Along with other forms of learning and educational capital available to the students, this potent combination helps us understand their comparatively high levels of academic achievement.

The motivation to expend effort can be seen to derive from high aspirations and expectations on the part of the students themselves and their parents. The role of parents has been reported to be a critical influence on students' aspirations (Dandy & Nettelbeck, 2000). Research with Asian American families consistently demonstrates their higher educational aspirations and expectations compared to other cultural groups (Chen & Stevenson, 1989; Sue & Okazaki, 1990). In Australia, Dandy and Nettelbeck (2002a) found similar results when they compared the expectations and aspirations of Asian Australian (Chinese and Vietnamese) and Anglo-Celtic parents. Dandy and Nettelbeck's (2002b) research also demonstrated that Vietnamese and Chinese students had aspirations of higher status occupations than Anglo-Celtic students matched on IQ and socioeconomic status. Other Australian research by McInerney (2006; 2008) and analysis of PISA data (Cresswell, 2004) demonstrated greater aspirations to attend university on the part of Asian Australian students. In line with their high aspirations for their offspring, Asian parents have expressed particular expectations of, and for, their children, including:

1. Asian parents requested more homework of teachers compared to Anglo-Australian parents who requested less homework (Dandy & Nettelbeck, 2002b).
2. Asian parents structured out-of-school activities and set specific times for study for their children (Malik, 1998).
3. Asian parents expect them to persevere at difficult tasks (Otsuka & Smith, 2005).

From Ziegler's (in press) perspective, these expectations by parents reflect their cultural and social education capital, but there is also a suggestion of the didactic education capital at work here in the educational choices they make for their children to guarantee their academic success. Interestingly, the Asian students indicated lower levels of parental support, which McInerney (2008) hypothesized was the students' interpretation of help they received within the home; they ignored the sizeable investment by parents in private tutoring.

The parents in my current research concur with these sentiments but match these expectations for their children with the commitment of financial resources, often requiring long hours of work or personal sacrifices. This ranges from paying for music, art or dancing classes to hiring personal tutors for additional coaching in academic subjects, as well as the provision of specialist equipment and materials to support their learning. This is an example of their utilization of economic educational capital (Ziegler, in press). The employment of private tutors has become so prevalent in New South Wales schools that many teachers are expressing concern about the long-term impact of such services. Of particular concern is that this industry is not regulated and may, in some cases, do more harm than good. In a recent group interview with selective schools principals, I proposed that we design a research study to evaluate the effectiveness of private tutoring but they responded that they would not have sufficient students who were not being tutored to serve as a comparison group (1/4/11).

While their economic educational capital may not be greater than non-Asian families, Asian parents utilize their financial resources strategically to benefit their children's education. These "extras" complement their use of the government-funded selective schools, which provides a less expensive option than the private schooling adopted by many middle-class and wealthy Anglo Australian parents (Ho, 2011).

There are also multiple examples of how the infrastructural educational capital available to Asian Australian families are utilized to support the learning outcomes of the Asian Australian

students. The first of these relates to the learning opportunities designed by parents for their children. Many families have made the decision to migrate to Australia specifically to provide educational opportunities for their children. They are also far more likely to be found in the two major capital cities, Sydney and Melbourne, because of the learning opportunities such cities afford. They also go to great lengths, hiring tutors and setting learning pathways for their children from the beginning of school, to ensure that they are selected into the academic selective streams in late primary school and secondary school.

Not surprisingly, then, obligation to parents is a feature of Asian students' motivation to succeed in school (Dandy & Nettelbeck, 2000; Malik, 1998; Otsuka & Smith, 2005). Such obligation most likely derives from Confucian principles of filial piety. "A salient feature of the father-child relationship is the unquestioned obedience of the son to the authority of the father" (Tu, 1985, p. 234). One parent in my current research in selective high schools indicated that "Asian families are strong and work together. Children always respect their elders and their teachers. This is very important for them to do well at school" (22/4/11).

Hence, cultural educational capital (Ziegler, in press) is also a feature of the performance of Asian Australian students with a high value placed on education by their families. The research described herein has revealed the positive attitude to schooling that the children hold, which has been inculcated by their parents. For example, the Asian parents (and grandparents) in one of our studies monitored the children's behavior in the classroom and if the children were not sufficiently attentive, the parent or grandparent would march into the classroom and discipline their child (Quigley, 2002). The parents also established routines around learning from Kindergarten on by setting additional homework or structuring practice times.

Social educational capital refers to the kinds of support provided by those around the learner and flows from the points in the previous paragraph. It is clear that Asian parents provide a great deal of social support to their children, although the children may not always recognize

this readily (see McInerney, 2008). Ziegler's (2005) argument that giftedness is not a trait of an individual is consistent with the attitudes expressed by Asian Australian students and their parents. For the Asian Australians in my various research undertakings, giftedness or excellence or high achievement is the outcome of effort. Parents go to great lengths to instill in their children the belief that they are capable of high achievement, and the attitude that they should aspire to such excellence in all their endeavors. These attitudes are coherent with the "anticipative competencies" described by Ziegler (2005, p. 427) that lead to excellence.

Finally, didactic educational capital plays a part in the accomplishments of Asian Australian students. The parents who were part of the research studies reported in this chapter shared an orientation toward capitalizing on the educational resources available in Australia. They draw on the strong networks they have established to get the best information about educational pathways and opportunities for their children. They are strongly represented in associations that support gifted children and regularly attend seminars to enhance their own knowledge.

Are Asian Australian parental expectations aligned with Australian teachers' expectations?

In my current research, however, there is some tension between the Chinese parents' expectations of education and the teachers' views about the parenting style of many of these parents. The specter of stern disciplinarians who force their children into particular school subjects and vocations is a stereotype that is held by many of the teacher respondents in my current research. This arose in our interviews following the release of Amy Chua's (2011) controversial book, *Battle Hymn of the Tiger Mother*. In this book, Chua outlines the harsh regimen she imposed on her two children and justifies the "hard line" she adopted as coming from a place of deep love and respect for the children. Chua stated:

Western parents are extremely anxious about their children's self-esteem. They worry about how their children will feel if they fail at something, and they

constantly try to reassure their children about how good they are notwithstanding a mediocre performance on a test or at a recital. In other words, Western parents are concerned about their children's psyches. Chinese parents aren't. They assume strength, not fragility, and as a result they behave very differently....Chinese parents demand perfect grades because they believe that their child can get them. If their child doesn't get them, the Chinese parent assumes it's because the child didn't work hard enough. (p. x)

I discussed Chua's ideas about parenting "tiger mother" style, and found quite polarized responses between my teacher and parent participants. Most teachers were horrified by some of the examples of Chua's parenting (such as banishing the younger child to stand outside in the cold because of her refusal to play a particular piece on the piano), with a small number even labeling it "child abuse". In our primary school data, we had examples of Chinese grandparents standing outside the Kindergarten classroom window and then going inside to chastise their grandchild if that child was not paying sufficient attention in class (Quigley, 2002). The secondary teachers in the current study cited examples in their schools of parents "over-scheduling" their children with too much structured activity, including music or dance or art lessons, Saturday maths schools, Mandarin or Cantonese language classes, and so on. They also commented on parents pushing their children into a very narrow selection of academic subjects. For example, at one Sydney selective high school, the Deputy Principal observed that the student body refers openly to choosing either the Indian or the Chinese menu of subjects for the Higher School Certificate. The Chinese choice is three Sciences and two Mathematics subjects, while the Indian choice is two Sciences, two Mathematics and Economics (1/4/11). Other researchers have commented on the narrow selection of subjects adopted by Asian Australian students, indicating that such choices were generally high-status subjects (McInerney, 2008; Sturman & Sharpley, 1992). Sturman and Sharpley (1992) observed that non-English-speaking-background (NESB) students were more likely to enroll in Chemistry, Physics, Mathematics, and Economics. Further, parents often selected subjects

for the students, according to one research study conducted in Australia (Malik, 1998).

As a result of this narrow focus, the selective school above is unable to offer some subjects, such as Visual Art, after Year 9 because of insufficient enrolments. The perception among the teachers is that well-roundedness—their preference—is being sacrificed on the altar of academic excellence. In the selective schools where the Asian enrolment is not the majority group (such as non-metropolitan schools), teachers do not perceive it as such an issue, although several teachers have commented that they actively discourage students from narrow selections. One science teacher at a non-metropolitan selective school indicated to me that “we tell them not to do more than one or two Science subjects because they don’t need it to get into Uni” (20/6/11). This is at odds with the students’ goals in many cases, where they are more concerned with mastery of the content (28/3/06).

The Chinese parents in my current research reacted quite differently with most approving of the “tiger mother” approach. Xiaolin, the mother of a 5-year old, was typical of many of the Chinese parents in my study. She commented:

I think her ideas are excellent. That’s how I raise Jie-Qi. When she is practicing the violin at home [Xiaolin has scheduled half an hour daily violin practice for her daughter], if she doesn’t give 100% effort, I tell her she will have to stop the violin because there is no point in not doing things as well as you can. Then she works harder and she enjoys it more. (13/6/11)

While the teachers in my current study tend to be critical of the kind of control and feedback given by Asian parents to their children, the parents report that they are motivated by intense love and respect for their children. They are willing to work extra jobs or sacrifice treats for themselves in order to provide enriching opportunities for their children. Xiaolin, for example, explained to me that she has enrolled her preschool daughter in ballet classes, music

lessons, art classes, swimming lessons and Mandarin language classes (31/8/10). Each of these structured activities is designed deliberately by Xiaolin to develop self-discipline and self-regulation skills in her child. The feedback she gives to her five-year-old daughter may sound quite harsh to some Western ears, but it is intended to communicate Xiaolin's strong belief in her daughter's intelligence, concentration, and creativity.

As indicated above, the Chinese parents in my current study believed that the high expectations and aspirations that they held for their children were necessary for them to attain excellence. They believed that the structure and discipline they demanded of their children would equip them with strong self-efficacy and good self-regulation skills. This stands in stark contrast to some assumptions that the Chinese parenting style, as popularized by Amy Chua, would undermine children's confidence and create dependent, compliant children without a vestige of creativity. There is certainly evidence to support the Chinese parents' position in work on attribution theory (Weiner, 1986). In a recent study, we found that the feedback given by preservice teachers to students with learning disabilities, while intended to be sympathetic, instead sent a message to students that they were not capable and thereby undermined their self-efficacy (Woodcock & Vialle, 2010).

Conclusion

To summarize the differences between Asian students and their counterparts in Australian schools, as a group Asian students demonstrate higher levels of academic achievement in their secondary school subjects, particularly in mathematics. They are over-represented in academically selective classes, particularly in the secondary school setting, and are more likely to undertake tertiary studies. They exhibit higher levels of motivation, are more likely to adopt mastery goals, and have higher aspirations for their school performance and careers. Consequently, they are more likely to enjoy school and are willing to spend more time on their studies.

As indicated, Ziegler's actiotope model challenges the mechanistic view of giftedness that is inherent in many approaches to gifted education. This chapter also supports the move away from a mechanistic view of intelligence, whereby the superior performance of Asian Australian students would be seen as resulting from higher IQs, propensity for mathematics, or selective migration patterns of higher IQ parents. Rather, it points to the need for a systemic view of giftedness (see Ziegler & Phillipson, in press) that recognizes that the development of excellence proceeds from the individual within his or her environment. The Asian parents, featured in the Australian research studies reported in this chapter, share this systemic perspective in their expectations for their children and the manner in which they interact with and support their children's learning. The 'tiger mothers' recognize their role in their children's learning and are instrumental in building individual learning pathways for their children. In other words, they utilize a dynamic-integrative regulation of their children's learning (Ziegler & Phillipson, in press).

This chapter has argued that on some measures—such as, academic performance at school, particularly in Mathematics; and, selective school enrolment—South and East Asian Australian students are achieving excellence in the Australian school system. The actiotope model provides a coherent theoretical foundation for the factors that research has associated with the high achievements of these students compared to their Australian peers. Through the lenses of learning and educational capital (Ziegler, in press), we can understand how the academic outcomes, the motivational and aspirational patterns, and the resources provided by parents within the Confucian-heritage value system combine in Asian Australian students to support their learning. As I have argued, the learning capital resources support the learning of these South and East Asian Australian students. The telic learning capital is reflected in the motivational goals the students have for their learning; the episodic learning capital combines these goals and their situational contexts with their action repertoires to result in high academic outcomes; and, the attentional learning capital reflects their self-discipline and time commitment with regard to their learning.

Similarly, the educational capital resources that proceed largely from the actions of parents also support the learning of South and East Asian Australian students. Economic educational capital reflects the financial resources directed at the children's learning; cultural educational capital entails the value of education shared by the Asian parents in our research; social educational capital reflects the range of supports provided by the parents, including their high expectations for their children's success; infrastructural educational capital is found in the parents' careful planning of learning opportunities for their children, including selection of school subjects; and, finally, didactic educational capital is reflected in the ways that Asian parents utilize their networks and seek information to help them guide educational decision-making with their children.

Asian parents, characterized in this chapter as 'tiger mothers', devote themselves to their children's learning, having a clear and positive effect on their children's action repertoires and the delineation of "a learning path...that leads to excellence" (Ziegler, 2005, p. 431) This does not mean that all parents or teachers need to become 'tiger mothers' to put children on the appropriate pathway to excellence. But a focus on how we can work within the actiotope framework to understand how individuals can make the most of their environmental supports, develop their subjective action spaces and attain excellence, is a must for education, both practically and theoretically.

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Table 9.1 Percentage of students from language backgrounds other than English in the top 10 selective schools in New South Wales (in order of Year 12 student outcome rank)

<i>School</i>	<i>% LBOTE¹</i>
James Ruse Agricultural High School	97
North Sydney Girls High School	93
Hornsby Girls High School	86
Baulkham Hills High School	92
Sydney Girls High School	88
Sydney Boys High School	91
Northern Beaches Secondary College Manly Campus	39
North Sydney Boys High School	90
Fort Street High School	81
Normanhurst Boys High School	80
St George Girls High School	90

¹Language Background Other Than English
Source: Ho, 2011