Academic difficulties encountered by East Asian international university students in New Zealand

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Abstract
The study focused on learning difficulties experienced by East Asian International (EAI) students. Participants were 117 EAI students undertaking tertiary study at a major university; all were surveyed and 21 students were interviewed. The findings suggest that language limitations, academic content and learning styles were associated with difficulties in their learning. Difficulties with academic content appeared to act as the major barrier to their academic performance rather than English language. This is contrary to earlier findings where Asian students often experience difficulties in tasks that are particularly related to language proficiency. The study also contradicted the popular belief that Asian students are only surface learners.

Keywords: academic difficulties, tertiary education, international students

Introduction

In 2008, 88,557 international students studied in New Zealand (NZ). Most international students who study in NZ come from Asia, such as China (20,579 students), South Korea (17,189) and Japan (10,676) (Education New Zealand, 2009). East Asian International (EAI) university students often encounter problems when studying in cultural setting different to their own. The most common problems faced by international students include language and adjustment to a new academic environment (Major, 2005). These challenges can significantly impact on their ability to cope with academic demands in Western settings. However, there is a lack of understanding as to how language skills and learning beliefs interact to contribute to the overall difficulties EAI students face in Western academic culture. While English language and academic and cultural adjustment difficulties are important barriers that interrupt international students' learning (e.g., Beaver & Tuck, 1998), there is rarely any detailed analysis of their correlates. This study aims not only to identify the barriers to learning for EAI students, but also to examine how English language skills and learning beliefs interact to contribute to difficulties experienced by EAI students and the impact of those difficulties on their learning.

English competence for academic purposes is an obvious prerequisite for studying and adapting to an English speaking country. Language difficulties are common barriers encountered by most international students in NZ (Beaver & Tuck, 1998). Moreover, most students studying English in Asian countries are exposed to American English and accent (Sawir, 2005), so it is likely that they will not learn the speed, slang, and sound of Australasian accents. For example, Choi (1997) found that more than half (55%) of Korean students in Australian universities perceived themselves as having difficulties understanding Australian English idioms and 40% reported difficulty with language usage. In academic settings, such problems have led EAI students to experience difficulty in understanding lecturers and in taking notes (Choi, 1997; Wong, 2004). In most respects, NZ English is similar to Australian English in accent and vocabulary. A lack of English proficiency is a primary cause of academic difficulties for international students since failure to cope with the linguistic demands of tertiary studies inhibits their academic performance in their chosen field (Brooks & Adams, 2002).

Research into cultural differences in approaches to learning has produced some interesting contradictions about Asian students' learning styles. There is a common stereotype held by some Western teachers that Asian students tend to rely heavily on memorisation and less on understanding the text (Biggs, 1996), characterised as a surface approach to learning (Ballard & Clanchy, 1997). Typically, students who adopt a surface learning approach are pragmatically motivated and see the task as a means of achieving an end; for example, they are at university only to obtain a degree with minimal effort (Le & Shi, 2006). The consequence of using the surface approach is often associated with negative learning outcomes such as poorer understanding (Ramsden, 2003). However, there is an apparent paradox; if Asian students learn by rote, why do they outperform their Western counterparts (Kember, 1996)? Biggs (1996) argued that part of the explanation related to assessment methods and learning styles. East Asia's education is a mainly an examination-oriented education, all teaching and learning activities geared towards examination. Asian education systems stress the reproduction of knowledge through examination so their teaching methods are always focused on memorising content from text and assessing recall in an examination (Wong, 2004).

EAI students appear to hold the belief that knowledge is acquired through memory and that the whole content should be memorised by rote learning so that it can be reproduced in future assessment tasks (Donald & Jackling, 2007) and examinations can be said to have

the potential to reward memorisation (Kennedy & Lee, 2008). Further, due to a memorisation strategy, the students' academic writing is usually more reproductive because they are used to repeating other authors' words rather than developing arguments or drawing conclusions (Zhong, 2006). Asian students' use of memorisation occurs in conjunction with intention to understand (Donald & Jackling, 2007) and can contribute to higher-level learning outcomes (Chan & Rao, 2009). Further, Asian students are able to combine processes of memorising and understanding in ways that Western students seldom do (Kember, 1996). Likewise, memorisation through repetition among secondary and university students in Hong Kong and China involves more than rote and is an aid to deepen understanding of the material being studied (Donald & Jackling, 2007; Chan & Rao, 2009). Indeed, memorisation and understanding are not perceived as opposites, rather they are seen as mutually supportive concepts which can be combined to produce higher cognitive outcomes (Chan & Rao, 2009; Donald & Jackling, 2007).

Study purpose

The purpose of this study is to find out how EAI students' self-reported English language proficiency and learning styles affect their self-reported difficulties at university. Specifically, we aimed to answer the questions:

1. What language related difficulties do students report having?
2. What learning strategies do EAI students prioritise?
3. What difficulties do EAI students report having at university?
4. In what ways are learning strategies and English language proficiency associated with EAI students' perceived success and difficulties at university?

Methods

Participants

Participants were EAI students enrolled at a major university in NZ undertaking undergraduate study. Table 1 shows the characteristics of those completing the survey (*n*=117) and those who were interviewed (*n*=21). Students were aged between 18 and 29 years, with an average age of 22. The average length of residence in NZ was approximately 6 years. Some of the EAI students attended secondary school in NZ as EAI students. The most popular field of study was Commerce (*n*=35).

Procedures

After receiving ethics approval from the University's Human Participants Ethics Committee, participants were recruited through flyers posted on the university campus, notices posted on student club websites, and invitations distributed via email to students. EAI students contacted the research team if they were interested in participating and were asked to take the questionnaire either online (*n*=86) or on paper (*n*=31). At the end of the questionnaire, all participants who were willing to participate in a follow-up individual interview provided their contact details.

Of the 26 students willing to be interviewed, 21 were selected to ensure an even distribution of participation by nationality. Participants were contacted by the first author via email to confirm an interview date and time and place. Although most EAI students did not have English as a first language, they were required to have obtained for university entrance an IELTS score of 6.5. Students with an IELTS score of 6.5 in each of the four skills (speaking, listening, reading, and writing) are regarded as competent users of English language. Hence, it was expected that the semi-structured interview questions, administered

in English, would not pose a problem. In addition, the interviewer repeatedly checked with each participant to ensure that questions were clear. On average, the audio-taped interviews lasted for 30 minutes.

Table 1. Characteristics of survey and interview participants

Demographic Information	Survey M (SD)	Interview M (SD)
Gender		
Male	48.0%	24.0%
Female	52.0%	76.0%
Age in years	22.0 (2.49)	22.0 (2.64)
Length of residence in years	6.9 (3.16)	6.4 (3.52)
Nationality		
China	29.0%	24.0%
South Korea	28.0%	29.0%
Taiwan	16.0%	9.0%
Hong Kong	15.0%	14.0%
Japan	12.0%	24.0%
Degree		
Commerce	29.0%	33.0%
Arts	27.0%	14.0%
Science	21.0%	24.0%
Education	9.0%	10.0%
Law	8.0%	5.0%
Others	6.0%	14.0%

Measures

Questionnaire

Participants were asked to provide information about their age, gender, nationality, academic discipline, and length of residence in NZ.

Students' approaches to learning were assessed using the Student Approaches to Learning questionnaire (SAL; Marsh, Hau, Artlet, Baumert, & Peschar, 2006) which organises responses to its 52 items into four main categories: Learning Strategies, Motivational Preferences, Self-Beliefs, and Learning Preferences, each of which contains three to five items. In the present study, three factors related to learning strategies were selected (i.e., memorisation (4 items), elaboration (4 items), and control (5 items) as this study was interested in the strategies students used to select, combine, and coordinate learning activities (Marsh et al., 2006). Elaboration strategies involve processes that integrate information and control strategies are metacognitive strategies that regulate self-monitoring and self-control of cognition while performing an activity (Kennedy & Coelho, 2005). A four-point scale response format was used: 1 = Almost never to 4 = Almost always. The alpha estimates of reliability for the three scales varied from good to adequate (Table 2).

English language competence was assessed using the Can Do questionnaire (ALTE, 2002). The students' self-rated levels of English language competency in the areas of oral, reading, and writing were obtained. Items were selected from the ALTE level 5 or competent level because it was considered appropriate for the undergraduate level study. EAI students indicated their level of English competency in oral, speaking and listening (5 items), reading (5 items), and writing (5 items) on a five-point rating format ranging from 1 = "poor" to 5 = "excellent". For the current study, the alpha estimates of reliability for the three scales were high (Table 2).

Students' competency in a range of academic study skills (e.g., understanding lectures) were measured using the Self-Assessment of Academic Progress and Academic Difficulties questionnaire (SAPAD; Ministry of Education, 2003). The SAPAD scale consists of 17 items composed of three subscales: English (7 items), academic content (6 items), and sources of help (4 items). Students were asked to rate their own sense of difficulty using a 5-point rating scale ranging from 1 = "not at all difficult" to 5 = "extremely difficult". Further, five more items (e.g., reading and understanding textbooks, using student learning centre and getting help, interaction with native speakers/peers, understanding assignment questions and approaching the lecturers/tutors) were added as they were considered to be tasks essential for coping with university academic tasks. The alpha estimates of reliability for the three subscales were high (Table 2).

Interviews

The topics of the interview included English language proficiency, academic content and approaches to learning. The goals were to identify the most common barriers encountered by EAI students and their preferred learning strategies, ask what academic tasks they found most difficult, and explore EAI students' perception of their own English language ability.

Analysis
Quantitative

First, missing data were replaced using EM algorithm (Dempster, Laird, & Rubin, 1977) in SPSS. Next, maximum likelihood exploratory factor analysis (EFA) with oblique rotation was used to establish the most likely scales for each questionnaire section. Then, using AMOS 6.0 (Arbuckle, 2005), confirmatory factor analysis (CFA) was used to test the degree to which the proposed scales fit the data. After demonstrating the measurement models worked, their descriptive statistics were computed. To examine the extent of differences in the scores for language, academic difficulties, and learning styles, paired sample t-tests were performed. Pearson correlation coefficients were then calculated to search for significant correlations among study variables. Structural equation modelling was then used to examine how English and learning approach factors were associated with academic difficulties.

The quality of fit for CFA models and structural equation models was determined by reference to a number of fit indices. The best indices are those that are not affected by sample size or model complexity. The χ^2 statistic falsely punishes models with large sample sizes and degrees of freedom; the comparative fit index (CFI) falsely punishes complex models; and the root mean square error of approximation (RMSEA) falsely rewards complex models (Fan & Sivo, 2007). In line with current practice (Fan & Sivo, 2007; Vandenberg & Lance, 2000), acceptable fit for a model was imputed when the χ^2 per df was statistically non-significant ($p>.05$), gamma hat $>.90$, and the standardized root mean residual (SRMR) was about .06. Models that met these criteria were retained.

Qualitative

Interviews were transcribed and thematic analysis (Braun & Clarke, 2006) was conducted on the interview data. Interview content was organised by frequencies – what students said most frequently to least frequently. A pattern was any topic that the participants repeated at least two times. The analysis integrates results from both the interview and the questionnaire around common themes rather than reports them as separate entities. Each student was assigned a number and quotations are identified by that number.

Mixing methods

In mixing methods, choices have to be as to the sequence and relative priority of methods (Johnson & Onwuegbuzie, 2004). In this study, data collection was sequential with quantitative survey data collected before qualitatively-analysed interviews. This study reports predominantly the quantitative analyses of the survey data; however, the qualitative interview data are used to illustrate and expand the questionnaire results, providing an opportunity to enrich the questionnaire results.

Results

Students' approaches to learning

Data about students' approaches to learning was obtained from questionnaire and interview sources. To establish that there were three factors containing approaches to learning, as indicated by Marsh et al (2006), CFA was used to analyse the 13 items. This showed that two items each from Elaboration and Control and one item from Memorisation did not load onto their respective factors and so they were removed. A three factor model, with eight items in total, had adequate fit to the data (χ^2=35.3; *df*=17; χ^2/*df*=2.08, *p*=.15; CFI=.88; gamma hat=.93; RMSEA=.099; SRMR=.092) (Figure 1).
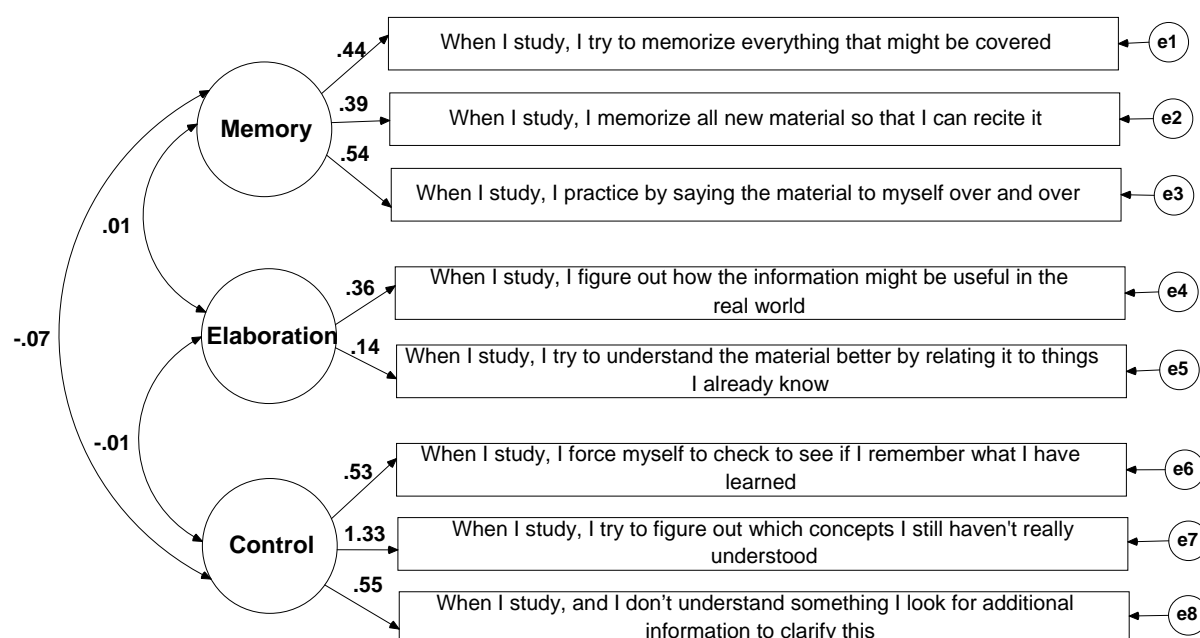

Figure 1. Students' approaches to learning

The mean scores were quite different: Memorisation: *M*=2.14, *SD*=.77; Elaboration: *M*=2.46, *SD*=.58; and Control: *M*=2.91, *SD*=.44. Three paired samples *t*-tests found significant differences in the scores for Memorisation and Elaboration, $t_{(110)}$ = -3.36, *p*<.01,

Memorisation and Control $t_{(110)} = -8.81$, $p<.001$, and Elaboration and Control, $t_{(110)} = -8.09$, p<.001. The three factors were inconsistently correlated to each other. Memorisation was not associated with Elaboration ($r=-.10$) and Control strategy ($r=-.02$). There was a moderate but positive relationship between Elaboration and Control strategy ($r=.38$).

The OECD PISA (Marsh et al, 2006) norm for 15 year-olds in NZ for Control strategy was 2.78 and the mean scores for Elaboration for both NZ and Korea 15 year-olds was 2.57 and 2.50, respectively. However, the mean Memorisation score for this sample of EAI students was much lower than both NZ ($M=2.66$) and Korea ($M=2.37$).

Interview findings

Ten students reported that their preferred learning style was memorisation, especially when it came to examination. This was especially beneficial for their home country's examination-based educational system. Such systems require reciting of texts and ignore creativity and the need for reflective and original thinking (Wong, 2004).

> I do lot of memorising from textbooks. When I read textbooks, and if there are things that I don't understand, I just try to memorise until I understand (1).
> Before exam, I memorise a lot. I memorise and then revise important things (2).

It should be noted that the mean Memorisation score for the 21 interview participants ($M=2.37$, $SD=.64$) and for the 10 high-memorisation students in the interview ($M=2.63$, $SD=.53$) was much higher than the survey results.

Discussion of SAL

The low memorisation score for the survey is inconsistent with previous results which emphasised memorisation and is inconsistent with the interview results. Possible reasons for the low memorisation score include: (1) these students may have adopted Western beliefs about learning being more analytical and critical because they had spent time in Western schooling (i.e., late secondary school and early years of university) in which abstract thinking, creativity and originality were stressed (Ballard & Clanchy, 1997); (2) the sample in this study were university students, while the norms were based on 15 year old students; and (3) the students may be using memorisation, but are not aware that they are doing so (i.e., they are self-protecting from potential criticism for using a supposedly inappropriate learning strategy). Hence, in terms of learning, the students believed they exercised control and did not memorise.

However, this result was not repeated among the interview participants, half of whom reported considerable use of memorisation. By chance, the volunteer interviewees had higher Memorisation scores than the majority of survey participants. Hence, it appears, given the high Memorisation mean of the interview sample, that those participants were providing accurate responses through both methods and that interview participants happened to have much greater use of Memorisation. It should be noted that the correspondence of results from questionnaire surveys and open-ended interviews is not normally high (Harris & Brown, 2010) and the similarity here is quite remarkable despite the different data collection methods. Thus, the role of memorisation needs to be examined in light of other survey factors.

English language competencies

EFA showed that the 15 items of the Can Do questionnaire fitted, as designed, into three factors of oral, reading, and writing. Given the relatively low case to variable ratio (i.e., 117:15), it was decided to test each factor in separate CFA measurement models giving a

much more robust case to variable ratio (i.e., 117:5). Results for each factor model were acceptable (Oral: χ^2=22.5; *df*=5; χ^2/*df*=4.49; *p*=.03; CFI=.92; gamma hat=.92; RMSEA=.179; SRMR=.054; Reading: χ^2=13.7; *df*=5; χ^2/*df*=2.73; *p*=.10; CFI=.96; gamma hat=.95; RMSEA=.126; SRMR=.044; and Writing: χ^2=17.5; *df*=5; χ^2/*df*=3.50; *p*=.06; CFI=.96; gamma hat=.94; RMSEA=.151; SRMR=.037) (Figure 2).

The mean scores were not similar across three factors (oral: *M*=2.82, *SD*=.71; reading: *M*=2.90, *SD*=.70; writing: *M*=2.64, *SD*=.70). Three paired-samples *t*-tests showed that there was no significant difference in the scores for oral and reading, $t_{(113)}$ = -1.39, *p*>.05, while there were significant differences in the scores for oral and writing, $t_{(113)}$ = 3.26, *p*<..01, and reading and writing, $t_{(113)}$ = 4.89, *p*<.01.
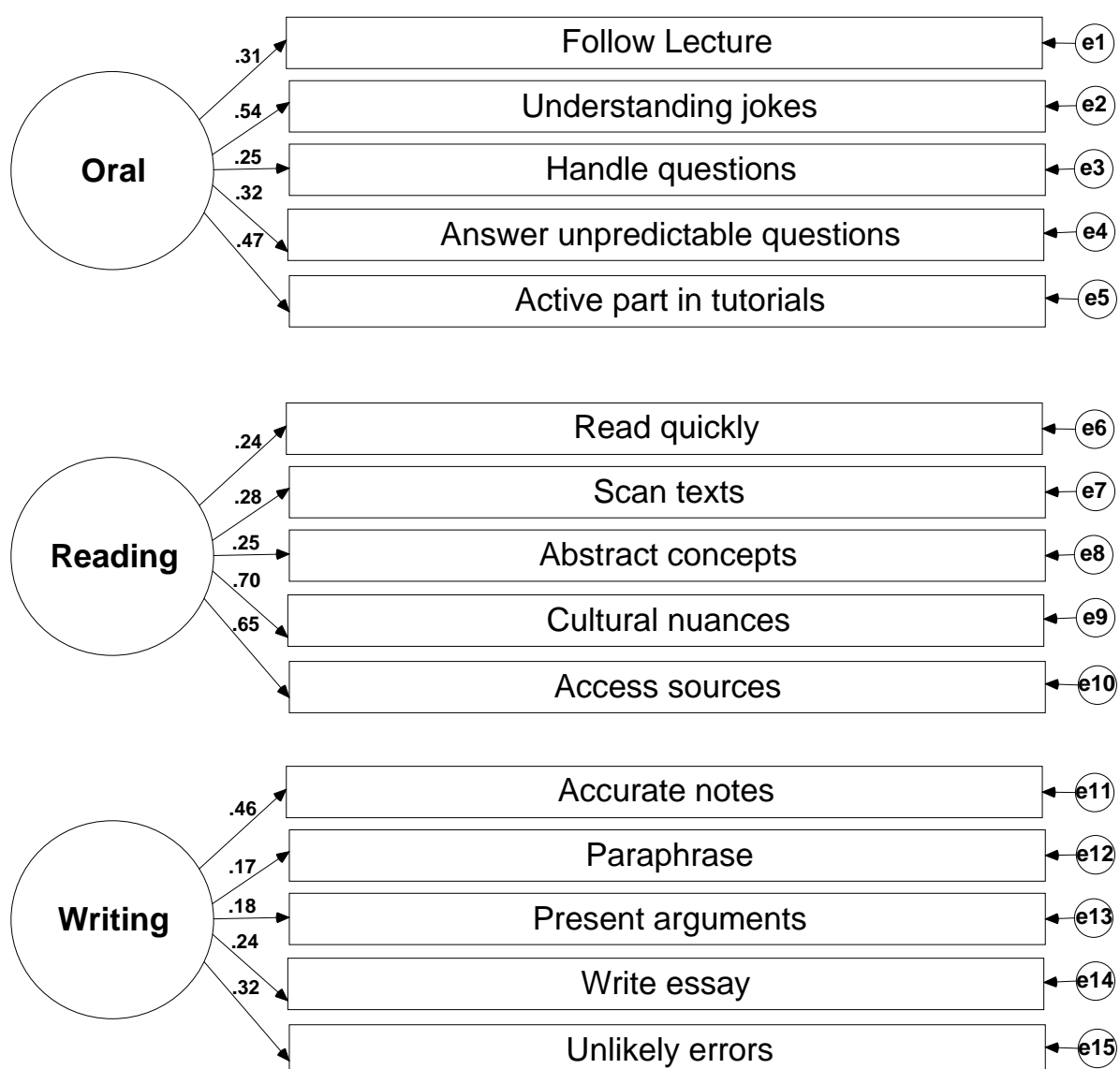

Figure 2. CAN DO measurement model

Pearson correlation coefficients among the oral, reading, and writing factors suggested that the three macro skills were strongly associated with *r*'s ranging from .59 to .70 (Table 2) indicating that, as anticipated, the three factors were complementary facets of

English language proficiency. The mean scores suggested that the students rated themselves as having intermediate skills in oral, reading and writing.

Interview findings
Written English
      18 students responded that writing essays and reports were the most difficult academic tasks. They blamed their English language abilities and their inability to understand the assignment questions. For example:

      Sometimes writing essays is hard because it is university here so they require good
      quality of writing in fluent English so it's hard to get good marks in essays (3).

Such comments indicated that students considered their problems with writing essays and reports were related to a lack of grammar and vocabulary rather than an ability to think logically or argue. Overall, students reported that they were familiar with the demands of the writing tasks, but felt they lacked the English needed to carry out the tasks.

Reading
      Interestingly, only one student mentioned reading in the interview, commenting that managing her reading load and the complexity of reading at university with the limited time available was very difficult for her. None of the other students mentioned reading in the interview. This may be because reading was not an issue or the students did not find reading to be as great of difficulty.

Table 2. Scale Inter-Correlations and Means (*SD*) for Can Do, SAPAD and SAL

Scales	Can Do			SAPAD			SAL			Scale Statistics	
	1	2	3	4	5	6	7	8	9	*M*	*SD*
1. Oral	(.85)									2.82	.71
2. Read	.696**	(.82)								2.90	.70
3. Write	.586**	.649**	(.89)							2.64	.70
4. English	.342**	.259**	.280**	(.88)						2.26	.72
5. Academic	.309**	-.143	-.192*	.603**	(.87)					2.60	.79
6. Help	.102	.186*	.142	.393**	.054	(.81)				1.69	.71
7. Memory	.039	-.005	.044	.252**	-.102	.255**	(.83)			2.14	.77
8. Elaborate	-.039	-.058	-.125	.017	.185*	-.005	.099	(.68)		2.46	.58
9. Control	-.029	-.049	.051	-.026	.231*	.142	.017	.383**	(.51)	2.91	.44

Note: Cronbach alpha estimate of internal reliability for each scale shown on diagonal in brackets; *=p<.05; ** =p<.01.

Oral language

Although the mean value for oral skills was reasonably high, difficulty in understanding lectures was frequently mentioned in the interviews. The EAI students had difficulty understanding lectures and keeping up with lecturers' fast-paced speech. These responses were consistent with Choi's (1997) and Wong's (2004) findings that lecturers' frequent use of English idioms, accent, and quick speech made it hard for Asian students to follow the lectures and take notes.

> Sometimes I have difficulty understanding kiwi English .They use different vocabularies and slang. Before I came here, I learned American English so some words and accents are different. (4).

Interestingly, one of the participants explained that when lecturers slowed their speed of delivery to help Asian students, this was possibly perceived by the EAI students as lecturers implying EAI students lacked academic ability or intelligence. In sum, students rated themselves as reasonably competent in English, but, consistent with previous studies, identified difficulties with understanding and following lectures and writing academic English.

Discussion of English language competencies

The questionnaire results were consistent with the interview findings. When students were asked to self-estimate their proficiency level in English, 13 out of 21 students rated their English proficiency at the intermediate level. Nevertheless, this should not be taken to mean that the students had enough English to cope with all course requirements. When asked if they had achieved full English language proficiency for studying, 12 students reported considerable difficulty in their use of English for academic purposes.

Self-assessment of academic progress and academic difficulties

Responses to 19 SAPAD items were factor analysed yielding the three factors of English, academic content, and sources of help. CFA identified two items that had very low loadings on their respective factors (i.e., 'Thinking critically' and 'Asking questions in lectures or tutorials'). It was again decided to run each factor independently with these items removed which resulted in adequate fit (English: χ^2=44.5; df=14; χ^2/df=3.18; p=.07; CFI=.92; gamma hat=.89; RMSEA=.143; SRMR=.057; Academic Content: χ^2=33.2; df=9; χ^2/df=3.69; p=.05; CFI=.92; gamma hat=.91; RMSEA=.159; SRMR=.055; and Sources of help: χ^2=5.9; df=2; χ^2/df=2.96; p=.08; CFI=.98; gamma hat=.98; RMSEA=.136; SRMR=.039) (Figure 3). Hence, the three factors were used in this study.

Factor 1 was concerned with the students' English ability. While Can Do assesses students' self-rated level of English competency in the areas of oral, reading, and writing broadly, SAPAD's English ability measures students' English competency on a range of academic tasks and their English for specific academic purposes. Factor 2 was related to academic content, in which students were confronted with the unfamiliarity of their new educational system. Factor 3 dealt with their ability to seek help from others and use university services available while studying.

The mean scores were moderately different (English: M=2.26, SD=.72; academic content: M=2.60, SD=.79; and sources of help: M=1.69; SD=.71). Three paired sample t-tests revealed significant differences between English and academic content, $t_{(107)}$ = -4.41, p<.001, English and sources of help $t_{(107)}$ = 9.73, p<.001, and academic content and sources of help $t_{(107)}$ = 10.8, p<.001. Students reported experiencing more difficulty with academic content than language. This is not consistent

with previous findings where the most difficult academic tasks for EAI students were related to language proficiency. This could be explained by students' lack of knowledge and awareness of the host academic context which acted as a barrier to their adjustment to academic demands of a different educational context, suggesting academic adjustment is as important as acquiring language. Sources of help had the lowest mean, indicating that seeking help by using university services were not considered difficult tasks compared to language and academic content.
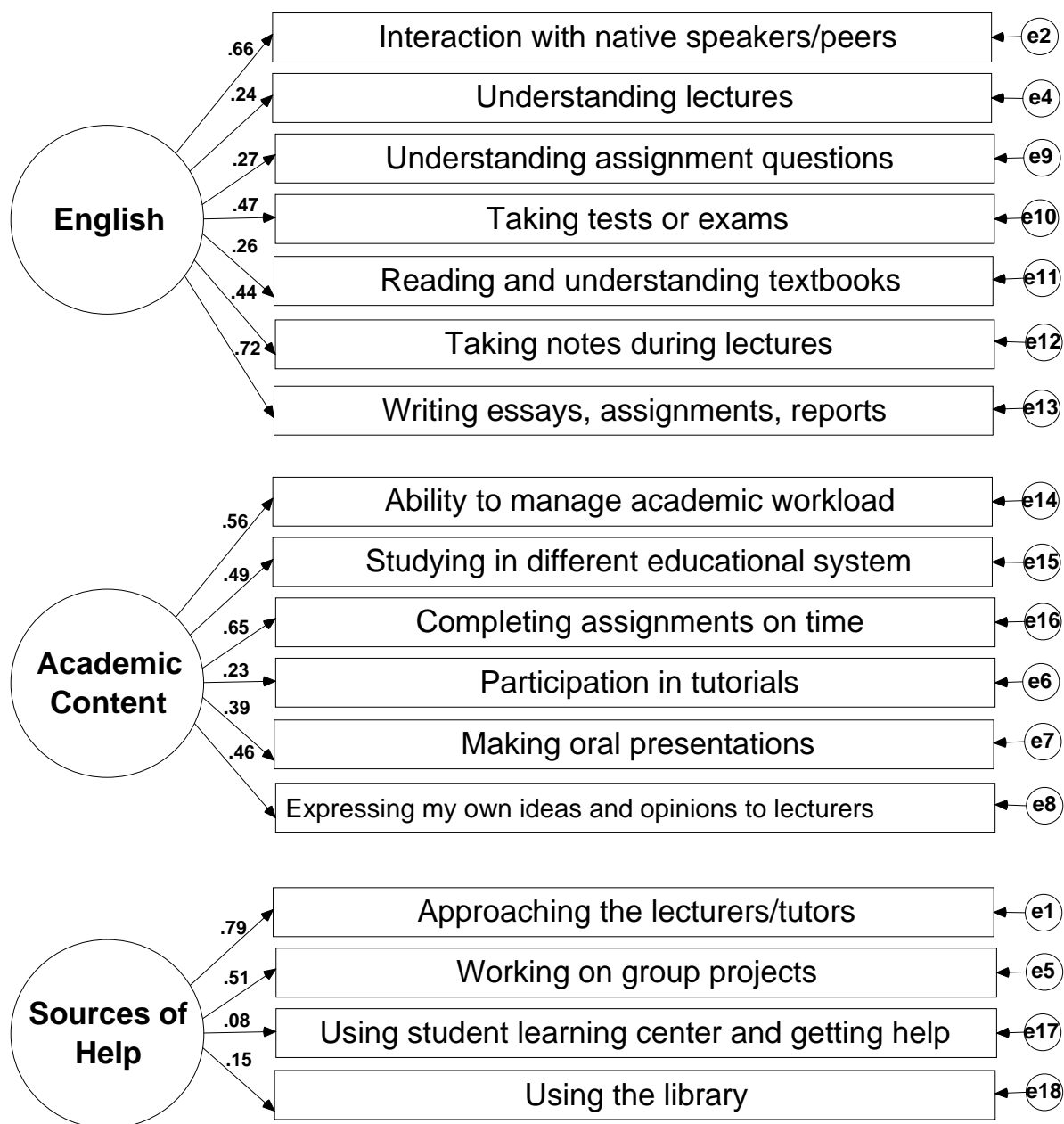

Figure 3. Self-assessment progress and academic difficulties

English ability and academic content were positively correlated (*r*=.60) indicating that students who had difficulty with their English also tended to have difficulties in coping with academic tasks. This result is consistent with earlier findings where language

proficiency is correlated with academic performance (Brooks & Adams, 2002). Academic content (e.g., tutorials) involves Western dialogical practices in class such as questioning, expressing opinions and requires students to adjust to the speaking styles in fluent English (Major, 2005). English ability was also positively correlated with sources of help ($r=.39$), while the correlation between academic content and sources of help was non-significant ($r=.05$).

Interview findings

Most students reported having difficulties participating in class discussions and expressing opinions to lecturers. Unfamiliarity with class interactions inhibited EAI students' interactions with lecturers and students during class discussions. Some interviewees' comments reflect what Holmes (2000) has indicated in his study that Confucian ideology influences students' communication patterns with lecturers. In Confucian Heritage Culture, knowledge is not to be questioned, but to be accepted and learned.

> It's really difficult to ask questions to lecturers and participate during tutorials. Not only because my English is not good but in Korea, asking for opinions are very restricted so I feel uncomfortable when it comes to class discussions (5).

Discussion of SAPAD

Possible explanations for the academic problems with sources of help are that the support available to EAI students is not seen as helpful for academic problems that these students encounter or that academic problems mean EAI students seek or are given the wrong kind of help. If students are given inappropriate help, they will continuously confront learning challenges and approaching the learning services will be considered pointless for these students. Alternatively, EAI students may themselves perceive the act of seeking help as something relatively problematic. The act of seeking help requires the help-seeker to admit publically that there are weaknesses in one's learning and, if avoiding appearance of weakness is important to the individual, then seeking help is difficult. Further, seeking help may be complicated by language difficulties since help must be sought in English.

Integrating constructs

The relations between language difficulties, academic difficulties and learning strategies were tested using structural equation modelling. To redress the low case to variable ratio (i.e., 117:41), mean scale parcelled variables were created for the nine latent traits, resulting in a case to manifest variable ratio of 117:9. It was expected that English language competencies and student approaches to learning would simultaneously predict the academic difficulties EAI students reported. Each construct was modelled as a latent trait consisting of three factors, being the parcelled mean scale variables. The English competencies latent trait itself was modelled as predicting the three separate academic difficulties. The three separate approaches to learning were used to predict the three separate academic difficulties. This approach was taken because of the strong inter-correlation among the three Can Do competencies and the weak inter-correlation among the three learning approaches. These correlations suggested that the English competencies would have a strong common effect whereas the learning approaches were likely to have independent effects. In an initial model, all paths from the English latent trait and the three manifest SAL variables were tested to

all three academic difficulties (i.e., a total of 12 paths). All statistically non-significant paths were removed to create a trimmed model that had satisfactory fit characteristics.

The resulting model fit the data acceptably (χ^2=40.4; df=24; χ^2/df=1.68, p=.19; CFI=.94; gamma hat=.93; RMSEA=.081; SRMR=.100) (Figure 4). While the SRMR was higher than expected (likely due to the weak path from SAL to memorisation), the balance of robust indices support acceptance of the model.
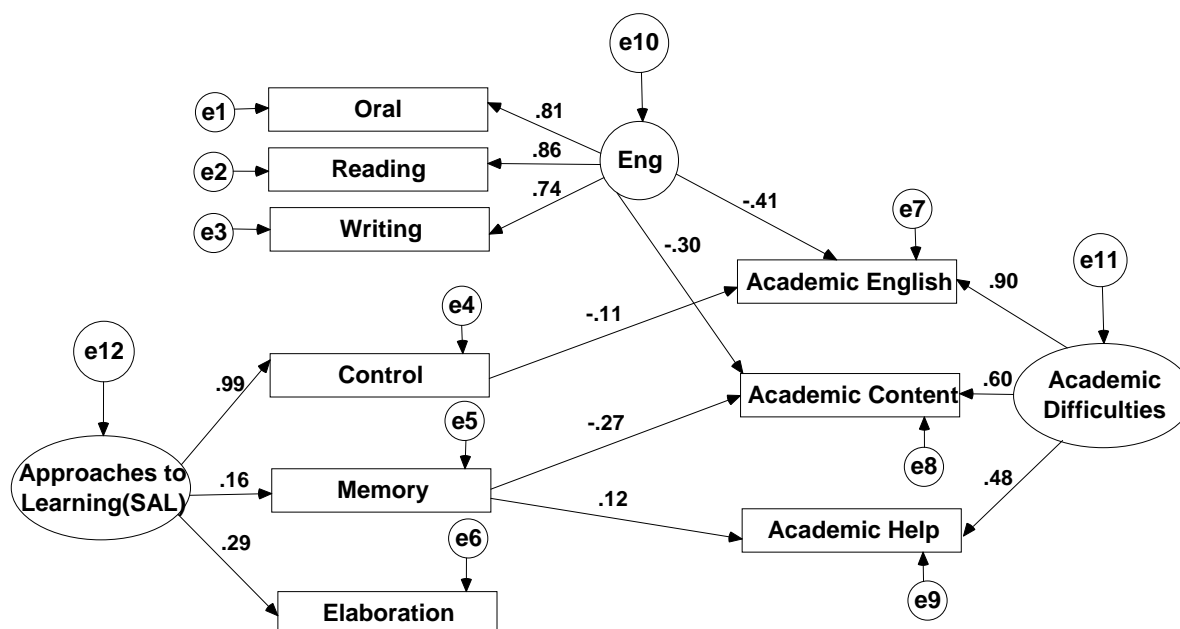

Figure 4. The relationships between language, academic task difficulties, and learning strategies

As can be seen from the model, the statistically significant paths were from English to academic English (β=-.41) and academic content (β=-.30), memorisation to academic content (β=-.27) and sources of help (β=.12), and control strategy to academic English (β=-.11). In terms of language, the higher students' self-rated English language, the fewer academic English and difficulties reported. Furthermore, students' greater use of control strategy also reduced self-reported difficulties with English language. Both paths are consistent with Brooks and Adams (2002) and suggested that students who are competent with the three macro components of English and who exercise explicit control over their learning may not struggle with the linguistic demands of the tertiary study.

However, relationships between memorisation, academic content and sources of help were surprising. The path to academic content from memorisation was negative, suggesting students who tended to rely more on memorisation had less difficulty with academic content. At the same time, greater use of memorisation led to more difficulties in using university help, suggesting that these strategies created obstacles in approaching others for help and using university services. This suggests, while EAI students perceived memorisation as a constructive and empowering strategy, they did not perceive university assistance as relevant to their preferred learning strategies. Combined with the weak relationship of memorisation to the approaches to learning (β=.16), it would seem this key strategy had a two-edged result. EAI students were more inclined to conceive that memorisation was not strongly part of a strategic, controlled

approach to learning. However, it also meant students had more difficulties in accessing university resources intended to help learning.

A second surprising result was the no-relationship between the elaboration strategy and any of the academic difficulties. This strategy, which ought to be productive of learning outcomes, had no statistically significant relationship to any of the self-reported difficulties of EAI students. A possible explanation may be that survey questions inadequately measured student preference or ability to use elaboration (Chiu, Chow & Chang, 2007).

Discussion

The goal of this study was to understand the kinds of difficulties EAI students perceived themselves as having and to identify factors that they considered either hindered or helped them cope with those difficulties. The results revealed that EAI students in NZ encountered a number of difficulties in terms of language, academic demands, and differences in learning. Two major contributors to coping with difficulties were investigated (i.e., language and study strategies). As expected, self-reported language proficiency reduced students' self-reported difficulties with academic English. Students' ability to cope with academic tasks (e.g., reading and writing essays) was related to their competency level in English. Increased competency in English would contribute to higher performance in all course requirements. Moreover, language competency also reduced students' difficulties with the content of academic tasks, which was a separate, though related, aspect of academic success. Thus, in addition to difficulties related to language proficiency, these EAI students indicated that academic content was a more difficult aspect of academic performance. Difficulty with academic content might be attributed to cultural differences in education practices and difficulty adjusting to Western dialogical practices in class due to unfamiliarity with the academic classroom discourse patterns and limited English. Difficulties in oral language contributes to those sociolinguistic characteristics of the standard English academic discourse that are key factors for academic achievement in English-speaking cultures (Major, 2005).

In general, students' use of Control and Memorisation strategies reduced difficulties, except around help seeking which was made worse by use of Memorisation. Together, the two paths from Memorisation and language suggested that, from the EAI student perspective, language competency and Memorisation combine to overcome academic content difficulties. This positive effect from reliance on Memorisation as an approach to learning moves beyond previous studies which asserted that Asian students are rote learners who prefer to memorise material so as to gain a deeper understanding of material (e.g., Kember 1996) and provides a more complex understanding of the role language competency plays.

The interview findings gave some insights into why memorisation might be a help rather than hindrance. East Asian examination cultures provide the students with motivation for this kind of learning since examinations are seen in Asia as measures of intelligence and personal virtue (Kennedy & Lee, 2008). Memorisation is, therefore, a highly developed strategy among Asian students.

However, an interesting but potentially negative consequence arose from stronger endorsement of the memorisation approach to learning. This approach led to an increase in difficulties related to making use of university assistance resources. When EAI students are more inclined to apply a surface approach to learning, they will have greater difficulty in seeking academic help. It may be that reliance on memory

approaches indicates students believe they do not need any academic help as everything they need should be in their memory. Additionally, it may be that EAI students are quite independent and self-reliant learners who are reluctant to seek help because having others know about their weaknesses in learning may lead to a loss of face and feelings of shame. Within Confucian-heritage cultures, shame and loss of face are particularly important and seeking help from others is culturally problematic. Hence, Asian students tend to confine their problems related to learning to themselves or members of their own cultural group (Mok, Kennedy, Moore, Shan & Leung, 2008). While limited English may add to the difficulty of seeking and receiving help (Nippoda, 2002), this study did not find a statistically significant relationship between English competency and difficulty with seeking help. Hence, this study indicates reluctance to access social assistance may be more a matter of learning strategy and possibly self-concept as a Confucian learner than a matter of language proficiency. In view of this, social assistance resources (e.g., student learning centre) may need to convey their assistance more in terms of improving learning strategies (e.g., how to memorise better and how to actively expand knowledge and information) than as assistance (e.g., "if you need help, come to…"). It should be easy to teach students transformational learning strategies (e.g., elaboration and control) by not contrasting them with memorisation strategies, but rather as adjuncts or new tools for memorisation. Based on the results of this study, such an approach ought to be seen by EAI students as a culturally appropriate means of building their learning capacity.

The findings of this study also indicate the following issues to be considered and explored in future studies. First, students' academic performance (e.g., GPA) should be included so that the findings can be extended to explore relations with academic achievement. Second, academic expectations and pressure from the students' families play an influential role in their studies in terms of academic achievement. Therefore, further studies should involve samples of parents to test their attitude toward education and their expectations on achievement. Because these findings are based on a small sample size, it is hoped that more students and parents could be involved in future research to find the ways to promote students' learning.

Conclusion

An important conclusion that can be drawn from this study is that students who believe they have better study strategies and English report having fewer academic difficulties. However, emphasising memorisation as a learning strategy appears to make getting help harder. EAI students in this study did not perceive themselves as victims of their learning situation. They understand that by using appropriate strategies and having the necessary English skills required to deal with tertiary demands, they can overcome difficulties they face.

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