Facilitating independent learning amongst Chinese international Students

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Facilitating Independence amongst Chinese International Students completing the Whitireia Polytechnic Bachelor of Applied Business Studies

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KEY WORDS: Independent learning, self-directed learning, international students, employability, international education.
Abstract: This paper is the first part of a longitudinal study focussing on facilitating independent learning amongst Chinese International students completing the Bachelor of Applied Business Studies at Whitireia Polytechnic. The major rationale advanced for developing independence is that this an important graduate competency required by Western employers. Evidence from the literature indicates that new Chinese international students will initially have a low level of willingness and ability to practise independent learning.

A model of independence is developed based on the Staged Self-Directed Learning model (Grow, 1991) and on the Situational Model of Leadership (Hersey & Blanchard, cited in Hersey & Blanchard, 1996). Grow’s model characterises four learning levels ranging from dependent to self-directed and it is proposed that, if suitable teaching strategies are employed, students should progress towards higher levels of independence as they advance through the degree.

Confirming the evidence from the literature review, the findings indicate that the class is at level two of independence. Suitable teaching strategies for level two learners will be developed and implemented in parts two and three of this project.

Introduction

This paper is the first part of a three-part longitudinal study focussing on facilitating independent learning amongst Chinese International students completing the Bachelor of Applied Business Studies (BABS) at Whitireia Polytechnic, Auckland.

In this first paper, a rationale for facilitating independent learning amongst Chinese international students is advanced. The focus is on developing a model of independence and on characterising and measuring student levels of independence. The construct of independent learning is defined and barriers and contributors to independent learning are identified in this context. Independence is defined and measured using 5-point scales for the constructs ability, confidence, beliefs and motivation. The model of independence is based on Grow’s (1991) taxonomy of Staged Self-Directed Learning and on the Situational Model of Leadership (Hersey & Blanchard, cited in Hersey & Blanchard, 1996). Grow’s model characterises four learning levels ranging from dependent to self-directed and it is proposed that, if suitable teaching strategies are employed, students should progress towards higher levels of independence as they advance through the degree programme.

The complete longitudinal project will involve tracking independence, using the questionnaire, at three points within the BABS marketing major, at the beginning of 200-level, at the end of 200-level and on completion of the programme. This paper presents findings from the first survey administered at the beginning of 200-level.
In this paper, suitable teaching strategies for students at each independence level are briefly outlined. In the following parts of the project, strategies will be developed and implemented to match the students’ independence level as identified by the evidence collected in this paper.

**Review of the Literature**

A rationale for independent learning

Saskatchewan Education proposes that globalisation of the economy and continual workplace and technological change mean that it is almost impossible for teachers to adequately prepare the next generation of global citizens. It proposes that independent learning is a capability that is required beyond school to assist learners to develop their own strategies to cope with continual social, workplace and technological change (Saskatchewan Education, 1988). The Commission of European Communities (1995) recognises the need to establish a learning society whereby education provides formal qualifications and the personal skills to cope with rapid changes taking place in Europe due to globalisation and the move to an information society. Fallows and Steven (2000) propose that graduates must be able to function in the ‘learning age.’ They propose that, in addition to equipping students with knowledge, higher education programmes should equip students with key skills such as the use of information technology and learning how to learn, and with cognitive skills such as an ability to analyse critically. Fallows and Steven suggest that these skills should be incorporated into learning outcomes at the University of Luton because the University mission statement refers to vocational relevance. The Whitireia Polytechnic BABS has a similar mission with respect to workplace relevance (Whitireia Polytechnic BABS Handbook, 2006, p6).

Western employers want trainees and staff who are independent and self-motivated, can set themselves targets and plan how to achieve them in a given time scale, can evaluate and learn from their own performance and can generalise their skills and knowledge to new situations (McNeill, 2003). In a survey of New Zealand graduate employers, Joseph & Joseph (1997) found that the top ranked competencies expected of graduates in descending order are willingness to learn, having a positive attitude, being motivated, having good communication skills and possessing the ability to work independently. The following literature review indicates that all of these competencies are characteristics of independent learners.

It is acknowledged that independence may not be required in all types and sizes of organisations and at all levels within organisations. It is also acknowledged that the graduate competencies required by Chinese employers may presently be different. It is possible that globalisation will ultimately lead to a fusion of Western and Eastern business practises (Howson, 2002), or to Chinese employers adopting Western practises or vice versa. However, the target student for the Whitireia Polytechnic BABS is the ‘global citizen’ who will work in a contemporary Western economy. One of Whitireia Polytechnic’s overriding goals is ‘to extend the range, relevance and quality of learning opportunities offered to students to enhance their potential, particularly for employment, locally, nationally and internationally’ (Whitireia Polytechnic BABS Handbook, 2006, p6). In addition, the BABS graduate will have competencies that are relevant to the New Zealand workplace in particular. The programme operates under the auspices of an advisory committee made up of a
range of people including representatives from New Zealand industry to ensure that the programme aims to provide workplace skills that are particularly relevant and useful to New Zealand.

Finally, a pragmatic reason for developing the ability to learn independently amongst students at Whitireia Polytechnic is that this is one requirement for lecturer career progression. One of the factors characterising a Senior Academic Staff Member in the Academic Staff Multi-Employer Collective Employment Agreement is the ability to ‘select and apply strategies to enable students to develop as independent learners’ (ASTE, 2005, p40).

A definition of independent learning
A literature review reveals the analogous constructs, autonomous learning, self-directed learning and independent learning. Cotterall (1995) defines autonomy as the extent to which learners use tactics for setting goals, choosing materials and tasks, planning practice opportunities and monitoring and evaluating progress (emphasis added). Although Cotterall is referring to autonomy in the language-learning context, it is proposed in this paper, that these learning tactics are context free. Grow (1991) defines self-directed learning as the degree of choice that learners have within an instructional situation.

In this project, the term ‘independent learning’ is adopted. Independent learners are able to acquire knowledge by their own efforts and have the ability for enquiry and critical evaluation. Independent learners know what their strengths and weaknesses are, how they best learn, are able to work towards their goals and can seek help if it is needed. Independent learners make the decision on how best to meet their learning needs in conjunction with relevant others, such as teachers, peers and employers. They select from a variety of settings, resources, styles and needs that meet their interests (Saskatchewan Education, 1988). Moreover, independent learners are able to generalise their strategies to a variety of situations (Grow, 1991). In this paper, it is suggested that these situations include the workplace as well as different educational situations.

A situational model of independent learning
Independent learning is situational and, not only will it take different forms for different students, but it will also vary according to student beliefs, ability and motivation. In addition, the level of independence will vary amongst subjects (Grow, 1991).

Grow (1991) adapted the Hersey & Blanchard Situational Leadership Model to a model of self-directed learning in the educational context. Hersey & Blanchard (cited in Hersey & Blanchard, 1996) argue that subordinates are at different levels of ‘readiness’ in an organisation with respect to their willingness and ability to perform work tasks. Willingness is defined as having the confidence, commitment and motivation to accomplish a specific task. Ability is having the knowledge, experience and skill in relation to a task (Hersey & Blanchard, cited in Hersey & Blanchard, 1996). Hersey & Blanchard define four levels of readiness and appropriate leader behaviours for each level. They argue that the leader should practise different
combinations and levels of task and relationship behaviour according to employee readiness. Also, inherent in their model is the idea that a leader should help followers to grow in readiness as far as they are willing and able.

Task behaviour is defined as the extent to which the leader directs how, when, where and what is to be done. Hersey & Blanchard (cited in Hersey & Blanchard, 1996) refer briefly to applying their model in different contexts and, in the education context, change the word ‘task’ to ‘guidance.’ Relationship behaviour is defined as the extent to which a leader engages in two-way communication, listening, facilitating behaviours and giving socio-emotional support.

At the two higher levels, followers become responsible for task direction and decisions are self-directed. At the two lower levels, the leader provides the direction and decisions are leader directed. Specifically, at level one decisions should be made by the leader; at level two decisions should be leader made with an explanation of the rationale for decisions; at level three decisions should be leader and follower made, or follower made with encouragement from the leader; and at level four decisions should be made by followers (Hersey & Blanchard, cited in Hersey & Blanchard, 1996).

In the early stages of working in an organisation, when subordinates are at the lowest level of readiness, they welcome a more directive style of leadership and are not in a position to contribute to decisions regarding work tasks. Subordinates are unable and unwilling and/or insecure. Hersey & Blanchard (cited in Hersey & Blanchard, 1996) propose that the leader should adopt high task, but low supportive behaviour for stage one learners. At the second stage subordinates are willing and/or confident but still unable, so a high level of task behaviour is still necessary (Hersey & Blanchard, cited in Hersey & Blanchard, 1996). According to Grow (1991), students at the second stage are making an effort, so the leader should be supportive and provide the rationale for decisions. At the third stage, subordinates are able but not confident and/or unmotivated. At this stage the level of task direction given by the leader should be low, as subordinates can do the task, and supportive behaviour and two-way communication should be high. Subordinates should be given input into decisions that affect their work and the leader should support risk-taking (Hersey & Blanchard, cited in Hersey & Blanchard, 1996). At the highest stage of readiness, subordinates are able and willing and/or confident. At this stage subordinates do not need task direction and supportive behaviour should be low. The leader should delegate and encourage risk-taking, for example (Hersey & Blanchard, cited in Hersey & Blanchard, 1996).

In the educational context, Grow’s model characterises four stages of independent learning, dependent (S1), interested (S2), involved (S3) and self-directed (S4). The stage four independent learner assumes responsibility for designing the learning situation, whereas the stage one learner is dependent upon the teacher to do that (Grow, 1991).

As Grow’s characterisation of the different learning stages is imprecise, the model developed in this paper is based on the characterisation of each learning level
developed by Hersey & Blanchard (cited in Hersey & Blanchard, 1996). In addition, neither the Grow nor the Hersey & Blanchard model is based on empirical evidence and this project attempts to develop the model based on evidence. Each level is characterised, measured and tracked amongst a cohort of students. However, no attempt is made to measure the relationship between academic outcomes and independent learning.

An important point is that Grow’s model is ‘non-linear and iterative’. As students experience different levels of ability and motivation for different subjects, a learner may be self-directed in one subject and dependent in another (Grow, 1991, p 144). In addition, students may become temporarily dependent with respect to new topics within subjects (Ariizumi, 2003; Grow, 1991). Individuals in one class may be at different readiness levels. Another very important point is that independence implies the ability to *decide* to be dependent (emphasis added) (Grow, 1991).

With regard to the model of independence, it is suggested that the majority of the new intake of Chinese international degree students will be at the lower two levels of independence. It is proposed that, if appropriate teaching strategies are employed, the cohort will progress towards higher independence as they move through the degree. Although it is expected that individual students may not all progress and regress in exactly the same manner, it is hoped that, by the final semester of the degree, many students will have achieved complete independence which is context free. As Grow (1991) proposes, independence is not entirely situational. Independence can be taught (and learned) and generalised to other subjects.

Independent learning in a cultural context
An understanding of the culture and educational background of Chinese students entering the BABS programme provides insight into their likely willingness and ability to practise independent learning; appropriate teaching strategies to facilitate independence and suitable tools to measure the level of independence in this context. It is acknowledged that there is diversity within the Asian culture and that the evidence collected from students from one Asian cultural group may not apply to another. In addition, one must be aware of the danger of stereotyping Chinese students. However, with respect to independent learning, there are general Asian cultural characteristics that differ from New Zealand culture. Ho & Crookall (1995) propose that in the Asian culture, the teacher is expected to take charge and to exercise authority. They also refer to the Chinese pre-occupation with saving face and how this relates to the concept of independent learning. They state that autonomy requires shared decision-making and may entail the student presenting opinions that differ from those of the teacher. Chinese students may feel uncomfortable about this as they wish to maintain their teacher’s mien-tzu (face) and avoid embarrassment.

Ho & Crookall also propose that while some aspects of Chinese culture are a barrier to independent learning; other aspects contribute to autonomy in the right situation. They propose that Chinese students have a culturally imposed need to be achievers by way of competing against each other in exams and that this prevents investigative activities. However, if they are given the opportunity to set goals and to assess the
extent to which they have achieved by their own standards, they may accept autonomy. Ho & Crookall presented a case study whereby students undertook a simulation requiring autonomous decision-making. The conclusions made from a post activity questionnaire were that students did become autonomous from the teacher. Kember, Wong and Leung (1999) found evidence of Asian students working collaboratively and, taking a different perspective than Ho & Crookall, propose that individual competition may not actually be a motivator in the Asian context. This proposal is supported by Kember (2000) and Eaton & Dembo (1997). Kember et al (1999) propose that some students work in a group to share workload and that others work in a group to learn from each other, and that neither type of group exhibits evidence of individual competition.

Cheng (1998) reported on the educational needs of newly arrived Asian Pacific Americans, stating that American teachers expect students to be interactive, creative and participatory, while their parents teach them to be quiet and obedient and not to question teachers. Cheng proposes that Asian Pacific American students are used to learning through listening, observing, reading and imitating; responding to teachers’ questions based on lectures and textbooks and taking tests that require only the recall of factual information. Miyuki (2001) found that students in a Japanese English as second-language class tended to be highly motivated to learn but that they were not ready for independent learning. Miyuki, like Cheng, offers past learning experiences as an explanation and his anecdote is that students are used to being excessively spoon fed by their teachers. However, evidence presented by Chan (1999) suggests that Chinese students are not passive, uncritical rote learners. Chan presented evidence from a study comparing Australian and Hong Kong University students, which illustrates that Asian students engage in metacognitive strategies such as monitoring and learning from their mistakes and linking learning with workplace experience. In addition, Chan found that Asian students are critical thinkers. They do not just accept everything that the teacher says. However, they do not express this openly like Australian students.

Latchem & Xinzheng (1999) propose that Chinese learners are typically less intrinsically motivated than Western learners are, and view a qualification as a means to an end, a worthwhile occupation. However, there is a longstanding Chinese tradition of self-teaching for knowledge and wisdom exemplified by the imperial examination system, which dates back to 589 – 618 AD and continued up to the turn of the twentieth century. Candidates unable to attend state institutions were able to study on their own. Furthermore, the examination required scholarly interpretation of the writings of Confucius and had no standard answers (Ren, cited in Latchem & Xinzheng, 1999).

Several researchers dispute the dichotomy between intrinsic and extrinsic motivation and the categorisation of some motivators, such as career success, as extrinsic with respect to Asian students (Kember, 2000; Kember, Wong & Leung, 1999; Miquelon, Vallerand, Grouzet & Cardinal, 2005; Pintrich, 2003). In addition, there is evidence that the negative motivator, fear of failure is influential amongst Asian students (Eaton & Dembo, 1997; Kember et al, 1999; Zusho, Pintrich & Cortina, 2005) and that this fear may relate to fear of parental displeasure (Eaton & Dembo, 1997).
Kember et al propose that fear of failure encourages a surface learning approach, which they characterise as meeting requirements in a minimal way. A deep approach, however, involves interest in a subject and a desire to achieve competence in it. Biggs, Kember & Leung (2001) propose that the generic aim of good teaching is to develop amongst students a deep approach to learning. They propose that a surface or deep approach is related to student factors such as prior knowledge and preferred approach to learning as well as teaching factors such as nature of content being taught, methods of teaching and assessment.

In response to the challenging evidence that career success can be an intrinsic motivator (Kember et al, 1999), Biggs et al respond with the suggestion that scales intended to measure surface motivation simply need to ‘reflect a tendency to minimise the cognitive level’ (Biggs et al, 2001, p 8), and that scales measuring supposedly extrinsic motivators such as the desire to get a good job are redundant. This project proposes that it follows that fear of failure, or individual versus group motivation are also redundant and the only relevant motivation scale items are those that characterise either a deep or a surface approach to learning. Biggs et al developed a questionnaire to measure deep and surface learning approaches and the motivational variables from this scale have been employed to measure motivation in this research project.

Facilitating Independence
A brief outline of teaching strategies for students at each independence level is presented in table 1. The outline of strategies presented arises from the literature review and from the practical experience of the author in the context of teaching Chinese international students. For theoretical clarity, the suggested teaching strategies are divided into discrete stages commensurate with each level of independence. However, the levels of independence and strategies should be viewed as falling on a continuum with some degree of overlap.

Table 1: A Model of Independence
### Methodology

The structure of the Bachelor of Applied Business Degree at Whitireia is:
- **Level 1** - eight 100 level papers completed within NZDipBus programme.
- **Level 2** - five 200 level papers
- **Level 3** - five 300 level papers.

Agreement to participate in this project was sought from 27 200-level BABS marketing major students. Twenty-two students agreed to participate in the project and completed the first questionnaire. This represents an 81% response rate.

To measure independence, a structured questionnaire was administered to the marketing major cohort commencing BABS 200-level. The questionnaire measured the following constructs with respect to independent learning on 5-point scales, motivation, confidence, beliefs and abilities, with 1 being the lowest and 5 the highest. These constructs were defined with 10, 10, 14 and 16 variables respectively and the individual variables were combined to create an average score for each composite construct. The surface motivation variables, 1, 4, 6, 8 & 9 were re-coded so that if a student strongly disagreed with the surface motivation statements, they scored five. A high score was defined as ≥ 3.5 and a low score was defined as ≤ 2.5, and respondents were classified as follows:

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<tbody>
<tr>
<td>Involved learner S3</td>
<td>Able/Unwilling and/or Insecure. Not willing to use the ability and/or is insecure or apprehensive about doing it alone.</td>
<td>Believe teacher &amp; student share responsibility for learning.</td>
<td>Decisions teacher &amp; student made, or student made with encouragement from teacher.</td>
<td>Low guidance/high support.</td>
<td>Higher risk choices, e.g. whether to complete assignment individually or in a group.</td>
</tr>
<tr>
<td>Interested learner S2</td>
<td>Unable/Willing and/or Confident. Motivated and making an effort, or confident as long as teacher provides guidance.</td>
<td>Decide teacher made with an explanation of the rationale for decisions.</td>
<td>Decisions teacher made.</td>
<td>High guidance/Support.</td>
<td>Low risk choices, e.g. select assignment topic from a list. Provide basic academic skills. Explain why students need to gain skills.</td>
</tr>
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</table>
Table 2: Levels of Independence

<table>
<thead>
<tr>
<th>Level One: Unable and unwilling and/or insecure.</th>
<th>Level Two: Unable but willing and/or confident.</th>
<th>Level Three: Able but unwilling and/or insecure.</th>
<th>Level Four: Able and willing and/or confident.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low ability</td>
<td>Low ability</td>
<td>High ability</td>
<td>High ability</td>
</tr>
<tr>
<td>and/or</td>
<td>and/or</td>
<td>and/or</td>
<td>and/or</td>
</tr>
<tr>
<td>Low motivation</td>
<td>High motivation</td>
<td>Low motivation</td>
<td>High motivation</td>
</tr>
<tr>
<td>and/or</td>
<td>and/or</td>
<td>and/or</td>
<td>And/or</td>
</tr>
<tr>
<td>Low self confidence</td>
<td>High self confidence</td>
<td>Low confidence</td>
<td>High confidence</td>
</tr>
<tr>
<td>and/or</td>
<td>and</td>
<td>and</td>
<td>and</td>
</tr>
<tr>
<td>believe teacher responsible</td>
<td>believe teacher &amp; student share responsibility</td>
<td>believe student responsible</td>
<td></td>
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</table>

The questionnaire was anonymous because it was believed that students would not answer the questionnaire candidly otherwise. Although it was expected that individual students might be at different levels of independence, the questionnaire did not identify individuals. Therefore, the questionnaire findings can only provide a guide to appropriate class level teaching strategies. However, it will be possible to identify how many individuals are at different levels for each construct.

Findings
The composite construct scores, ability, motivation, self-confidence and beliefs were classified as low (≤ 2.5), high (≥ 3.5), and medium or neutral (> 2.5 < 3.5). The findings indicate that overall, respondents' motivation and confidence is neutral (\(\sqrt{3.3}, S 0.34; \sqrt{3.1}, S 0.43\)) and ability is medium (\(\sqrt{2.8}, S 0.42\)). In addition, overall respondents believe that students and teachers share responsibility for learning (\(\sqrt{3.1}, S 0.36\)). No one in the class has low motivation and 11 students (50%) have high motivation. One person has low confidence and five students (22.7%) are highly confident. Six students have low ability (27.3%) and one student has high overall ability. No one believes that the teacher is solely responsible for learning and one student believes that the student is solely responsible for learning.

For the individual variables that make up each construct, the following have low (≤ 2.5) or high (≥ 3.5) scores (table 3):

Table 3: Scores for Individual Independence Variables
Discussion
Using the low/high classification of ≤ 2.5 and ≥ 3.5 for the composite constructs ability, confidence, motivation and beliefs, findings indicate that this class has neither high nor low independence. It has average ability, neutral confidence and motivation, and believes that teacher and student share responsibility for learning.

Alternatively, if this class is classified as less than, equal to or above average/neutral (3.0) for the composite constructs, this class is at level two of independence. It has average ability, neutral self-confidence, believes that the responsibility for learning is shared, and above neutral motivation. Level two is defined by Grow (1991) as an ‘interested learner’ and by Hersey & Blanchard (cited in Hersey & Blanchard, 1996) as being unable but motivated and/or confident. Although the class has average ability and therefore cannot be categorised as ‘unable’, this class is motivated. Also, this class believes responsibility for learning is shared and, on this basis, could be classified at level two or three. This project proposal is that level one learners believe that the teacher is responsible for learning, level four learners believe that the student is responsible for learning and level three learners believe that teacher students are jointly responsible. There is no expectation about whom level two learners hold responsible for learning. Additional evidence suggesting that this class is at level two is that it does not have the other characteristics of level one, three or four learners. Level one learners have low ability, motivation and/or confidence. Level three learners have high ability, but low confidence and/or motivation. Level four learners have high ability, motivation and/or confidence.

The composite scores will serve as a benchmark to track independence levels over the longitudinal project. However, the individual variables making up each construct (table 3) have higher validity and practical use with respect to guiding teaching strategy. With respect to the individual variables, this class has low scores (≤ 2.5) for the ability to independently revise for tests/exams and answer a case study. The class also has low scores for several factors that may be beyond its control, the ability to select assignment due dates, choose assignment topics and give suggestions to their teacher. These scores may be low either because students are

<table>
<thead>
<tr>
<th>Low Independence (≤ 2.5)</th>
<th>High Independence (≥ 3.5)</th>
</tr>
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<tbody>
<tr>
<td><strong>Low Ability</strong></td>
<td><strong>High Ability</strong></td>
</tr>
<tr>
<td>Exam/test revision ((\bar{y} = 2.32, S = 0.89))</td>
<td>Learn from mistakes ((\bar{y} = 3.64, S = 0.72))</td>
</tr>
<tr>
<td>Answer case study ((\bar{y} = 2.41, S = 0.66))</td>
<td>Access lecture notes from Blackboard ((\bar{y} = 3.55, S = 1.05))</td>
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<tr>
<td>Select assignment due dates ((\bar{y} = 2.27, S = 1.2))</td>
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</tr>
<tr>
<td>Choose assignment topics ((\bar{y} = 2.45, S = 1.14))</td>
<td></td>
</tr>
<tr>
<td>Give suggestions to teacher ((\bar{y} = 2.5, S = 1.14))</td>
<td></td>
</tr>
<tr>
<td><strong>Low Motivation</strong></td>
<td></td>
</tr>
<tr>
<td>Exam/test revision ((\bar{y} = 2.38, S = 0.78))</td>
<td></td>
</tr>
<tr>
<td><strong>Low Confidence</strong></td>
<td><strong>High Confidence</strong></td>
</tr>
<tr>
<td>Exam/test revision ((\bar{y} = 2.41, S = 0.9))</td>
<td>Make lesson notes ((\bar{y} = 3.5, S = 1.0))</td>
</tr>
<tr>
<td>Provide answer to case study ((\bar{y} = 2.32, S = 1.12))</td>
<td>Make learning notes ((\bar{y} = 3.82, S = 1.14))</td>
</tr>
<tr>
<td>Believe teacher responsible</td>
<td>Believe student responsible</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make lesson notes ((\bar{y} = 3.5, S = 1.0))</td>
</tr>
<tr>
<td></td>
<td>Make learning notes ((\bar{y} = 3.82, S = 1.14))</td>
</tr>
<tr>
<td></td>
<td>Decide if need extra help ((\bar{y} = 3.82, S = 1.14))</td>
</tr>
<tr>
<td></td>
<td>Learning missed material if absent ((\bar{y} = 3.76, S = 1.06))</td>
</tr>
<tr>
<td></td>
<td>Asking questions in class ((\bar{y} = 3.77, S = 1.11))</td>
</tr>
</tbody>
</table>

With respect to the individual variables, this class has low scores (\(\bar{y} = 2.32, S = 0.89\)) for the ability to independently revise for tests/exams and answer a case study. The class also has low scores for several factors that may be beyond its control, the ability to select assignment due dates, choose assignment topics and give suggestions to their teacher. These scores may be low either because students are
intellectually unable, or because their teachers have not previously either given them the opportunity or expected them to practise these skills.

It is suggested that the high ability (≥ 3.5) with respect to accessing lecture notes from Blackboard indicates that this class does have independence with respect to a limited form of research, that of accessing material from Blackboard. In addition, the ability to learn from mistakes supports the finding that Asian students do engage in metacognitive strategies such as monitoring and learning from their mistakes (Chan, 1999).

Overall, this class finds learning satisfying and comes to class with questions in mind. However, anecdotal evidence from observation of the class contradicts the latter. Students ask very few questions in class. In addition, this class does study topics in depth. These two findings support Chan’s (1999) proposal that Chinese students are not passive, uncritical rote learners, but that they do not express this openly like Australian students.

This class has a lack of confidence with respect to exam/test revision and this supports the finding that the class has low ability to revise for tests/exams. However, it is difficult to define a causal direction with respect to these confidence and ability variables. In addition, the class has high confidence with respect to knowing how to study well and expressing opinion. There is a contradiction between the lack of confidence with respect to exam/test revision and the high confidence with respect to knowing how to study well. In addition, observation of class behaviour contradicts the evidence that students have confidence to express their own opinion and come to class with questions in mind. However, it is acknowledged that confidence to express one’s own opinion does not necessarily mean vocal expression. As these students are motivated and ‘come to class with questions in mind’, are confident to express their own opinion, yet do not ask many questions in class, teaching strategies will be developed in part two of this project to address this apparent contradiction.

Overall, this class believes that students have greater responsibility than the teacher does for deciding when to make lesson notes, deciding if extra help is needed, learning missed material if absent and asking questions in class. Alternatively, the class believes that the teacher has greater responsibility for revising for tests/exams and giving the answer to a case study, and this finding is supported by the findings with respect to confidence and ability. Students are not confident with test revision, have low ability to independently revise for tests/exams and low ability to answer a case study. This indicates that beliefs, confidence and ability are interrelated. However, as noted, it is difficult to specify a causal direction with respect to these variables. These students may believe that the teacher is responsible because they have low ability and/or confidence. Alternatively, student beliefs may mediate actions and confidence.

Conclusion
On an aggregate level, using the low/high classification of ≤ 2.5 and ≥ 3.5 for the composite constructs, this class has average ability, neutral confidence and motivation, and believes that teacher and student share responsibility for learning.
Alternatively, if the class is classified as less than, equal to or above average/neutral (3.0), it has average ability, neutral confidence, believes that student and teacher share responsibility for learning, and is motivated. Findings indicate that these students are not surface learners. Using this alternative classification, the students are at level two of independence. Grow (1991) defines learners at level two as ‘interested learners’ and Hersey & Blanchard (cited in Hersey & Blanchard, 1996) define subordinates at this level as unable, but ‘willing and/or confident.’ Suitable teaching strategies for students at this level will be developed and implemented in the next part of this project. These strategies will be based on the evidence from scores on the individual variables making up each construct.
References


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