The role of work-integrated learning in student preferences of instructional methods in an accounting curriculum

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The role of work-integrated learning in student preferences of instructional methods is largely unexplored across the accounting curriculum. This study conducted six experiments to explore student preferences of instructional methods for learning, in six courses of the accounting curriculum that differed in algorithmic rigor, in the context of a high power distance society, Sri Lanka. Two hundred and ninety-seven accounting students attending a major Sri Lankan university took part in the study. For six courses in the curriculum, the study investigated students' preferences of traditional, interactive, and case-study-based group instructional methods. All students least preferred the traditional instructional method across all courses. All students most preferred the interactive instructional method for high algorithmic courses. However, work-integrated learning students most preferred instructional methods that differ from other students for lower algorithmic courses. The implications are outlined for an algorithmic pedagogy such as an accounting curriculum. *(Asia-Pacific Journal of Cooperative Education, 2015, 16(1), 71-86)*

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Several universities have a work-integrated learning component included in the accounting curriculum while other universities are increasingly considering including it into their programs. Work-integrated learning enables students to bring work-related knowledge into the classroom (Abeysekera, 2006), but the influence of students' work-integrated learning on their preferred learning instructional methods remains largely unexplored.

This study explored the influence of work-integrated learning on students' preference of instructional methods for learning courses in an undergraduate accounting degree program at a premier Sri Lankan university. The three instructional methods investigated were traditional, interactive, and case-study-based group. Led by the literature and theory, the purpose of the study was met with two objectives. First, it investigated whether students in work-integrated learning most prefer interactive instructional method to learn high algorithmic courses, and second, it investigated whether students most preferred case-study-based group instructional method to learn low algorithmic courses in the accounting curriculum. Students' identifying preferred learning instructional methods in the context of algorithmic rigor of courses, and the role of work-integrated learning in this preference, may help instructors to design instructional methods to provide the best learning outcomes for students.

RELEVANT LITERATURE

Contemporary Challenges in Accounting Education

The change in future higher education is influenced by the massive increase in the availability of knowledge, competition for students and government funding, digital technology, mobility of students and academics, and building deeper relationships with industry to differentiate teaching programs (EY, 2014). In relation to accounting, the Pathways Commission on Accounting for Higher Education created by the American Accounting Association and the American Institute of Certified Public Accountants notes

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that more needs to be done to engage and retain the strongest possible community of students in the study of accounting (Pathways Commission, 2012, p. 9). Albrecht and Sack (2000) identified a set of unequally ranked competencies for accounting students. The competencies rated most highly by accounting students, practitioners, and academics included written communications, oral communications, analytical and critical thinking skills, decision making, interpersonal skills, teamwork, computer technology, and leadership. Albrecht and Sack urged revision of instructional methods and the curriculum in higher education to develop the skill set required in future accountants (Mathews, 2001). A path to facilitating competence in students is to enable them with instructional methods that allow students to build competence through acquiring knowledge, applying knowledge, and gaining insights into the competence built.

Students' Perceptions on Instructional Methods

Instructional methods help the learning process to link conceptual knowledge in a meaningful professional practice (Abeysekera, 2008, 2011; Ramsden, 2003, p. 50). Picciano (2002) examined student interaction in an online course in a graduate program in education administration, and found that student interaction (measured as postings on an online discussion board) had a positive influence on examination performance in that course (measured as scores on an examination and on a written assignment). Students' perceptions of various aspects of learning have been examined across academic disciplines such as information technology (Smart & Cappel, 2006), foreign language (Stepp-Greany, 2002), and accounting (Zraa, Kavanagh, & Morgan, 2012). Studies have also examined student perceptions of effective instructional methods in different delivery platforms such as distance education (Egan, Welch, Page, & Sebastian, 1992), online education (Potter & Johnston, 2006; Smart & Cappel, 2006), and face-to-face education (Zraa et al., 2012). Zraa et al. (2012) examined students' perceptions (about feeling empowered) in relation to classroom instructional methods, using first-year Libyan and Australian students undertaking a business degree program. They found that students who received the collaborative method of instruction perceived themselves to be more empowered in that they felt they could make an impact on how learning was conducted in the classroom, learning was more meaningful to them, and they felt more competent in their learning tasks.

Students' Preference of Instructional Methods

There are various ways to classify instructional methods for learning commonly used in accounting courses. The two broad classifications are teacher-centered instructional approach (traditional instructional method) and learner-centered instructional approach. The learner-centered instructional approach includes learning through discussion, cooperative learning, and team-based learning. The teacher-centered instructional approach focuses on how students are taught with attention to *what* students learn, while by contrast learner-centered instructional methods are taught with attention to *how* students learn (Kramer et al., 2007). Rather than classifying instructional methods as teacher-centered and student-centered approaches, literature has classified instructional methods as traditional, interactive, and case-study-based group, where the teacher-centered instructional approach is traditional, the learner-centered instructional approach is case-study-based group, and the 'hybrid' instructional method is interactive (Abeysekera, 2008, 2011).

There are salient differences among the three instructional methods investigated. The traditional instructional method offers students little opportunity to engage interactively

with the course content (Gray, Bebbington, & McPhail, 1994), and is a teacher-dominated instructional method. The interactive method, on the other hand, allows students to interact with the instructor in two-way communication, asking questions and engaging in discussion. It is a teacher-dominated instructional method, but it facilitates interaction between the students and the instructor. The case-study-based group instructional method divides students into groups and allows them to learn the course content through case studies with the instructor directing and facilitating the learning. In this method there is less emphasis on instructor-centered instruction, and more emphasis on students engaging in discussion with their peers. Thus, it is a student-dominated instructional method that facilitates interaction with peers (Apostolou, Hassell, Rebele, & Watson, 2010).

In a recent study Apostolou et al. (2010), compared student preferences of each instructional method for a two-hour lecture, between Australian students and international students and found that both Australian and international students least preferred the traditional instructional method compared with the interactive and case-study-based group instructional methods. They found that international students preferred the interactive and case-study-based group instructional methods. Using Hofstede's (1980) cultural dimensions, the study concluded that societal cultures of international students favored them to prefer the case-study-based group instructional method over the traditional instructional method.

Instructional Methods as a Product of Learning Environment

Students in various academic disciplines study differently (Ramsden & Entwistle, 1981), and this study examined learning in an accountancy curriculum. Regardless of the academic disciplines, good teaching is student-centered (Carpenter & Tait, 2001), but this does not imply that bad teaching is teacher-centered. Trigwell, Prosser, and Waterhouse (1999) showed that good teaching involves matching students' learning approaches with appropriate instructional methods. For instance, Abhayawansa and Fonseca (2010) found with Sri Lankan students who studied in Sri Lanka for secondary education, but are now studying at an Australian university for tertiary education, conceived learning as acquiring knowledge and skills to apply in future employment. A study conducted with accounting students at a major Hong Kong university revealed that those students learn as spectators rather than as participants, and concluded that the learning process is a product of the learning environment (Hwang, Lui, & Tong, 2005, 2008). The learning environment is largely determined by its society's cultural setting, and the authors identified Hong Kong as being representative of Asian societal cultures measured using Hofstede's (1980) societal culture dimensions, characterized by a greater power distance. The greater power distance between the instructor and students diminished student participation in the learning process and was considered more conducive to passive, rather than active, learning. Hwang et al. (2005, 2008) studies showed, using experiments and using intermediate accounting content, even in a greater power distance culture, introducing the cooperative learning instructional method significantly outperformed the traditional instructional method in meeting student learning outcomes.

This research investigated students' preferred instructional methods (traditional, interactive, and case-study based group) in six algorithmically different courses in the accounting curriculum of a large Sri Lankan university. An accounting curriculum comprised several courses that differ in algorithmic rigor, and such investigation could provide valuable information regarding students' preferences of instructional method for courses across an accounting curriculum.

Algorithmic Pedagogy and Likely Student Preferences of Instructional Methods

Rules of academic discourse differ between courses, and students explore various ways to understand these discourses (Hull & Rose, 1990). Thus, instructors need to understand the ways in which learners learn the rules of academic discourse in various courses in academic disciplines (Olivier-Shaw, 1995). Several studies examining single courses, or single topics, in Western tertiary institutions have created a 'halo effect' assumption that student-to-student interaction is the most preferred instructional method to achieve best examination performance outcomes, equating those outcomes with student learning (Hwang et al., 2005, 2008; Johnson, 1981; Kerr & Murthy, 1994; Potter & Johnston, 2006).

Authors have described algorithmic in various ways. Galloway described algorithm metaphorically as "a machine for the motion of parts" (Galloway 2006, p. xi) while Wark (2006) and Narayan (2009) describe an algorithm linearly. Wark described it as a finite set of instructions to accomplish some task, which transform an initial starting condition into a recognizable end condition (Wark, 2006, section 31). Narayan described it as step-by-step breaking down of procedures for a given computational task to facilitate student learning. Umapathy (1984) identified six attributes that make course content highly algorithmic: (i) the course content has procedural aspects; (ii) the problems examined therein can be broken down into several components as procedures or decisions; (iii) the concepts or theories to be learned can be generated by solving problems; (iv) there is one correct solution to each problem; (v) the learning process can be standardized across all students and instructors; and (vi) the material to be learned is high in the importance of accuracy and low in the importance of subjective factors.

Algorithmic pedagogy relies on two aspects: course learning content in terms of algorithmic rigor, and the use of appropriate instructional method. The instructional methods could differ in relation to the level and robustness of algorithm development in learning demanded by students. Arguably, the interactive instructional method would offer the best pathway to develop algorithms in learning among students, with the help of an instructor who has demonstrated competence in the application of algorithms. Using the interactive instructional method, the instructor has ample time to design classroom activities with the students, and to overcome any misunderstandings while the concepts are still fresh in students' minds (Ongeri, 2009).

HYPOTHESIS DEVELOPMENT

Algorithms in Accounting

Each of the six algorithmic pedagogical attributes suggested by Umapathy (1984) was evaluated for high, medium, or low rigor in each of the six courses. Based on the analysis as shown in Table 1, financial accounting and business statistics are high on five attributes, finance is high on four attributes, management accounting is high on three attributes, and business law and management are high on one attribute only. As a guideline, it can be concluded that, among these courses, the financial accounting and business statistics courses are highest in algorithmic pedagogy, and management and business law are lowest in algorithmic pedagogy.

TABLE 1: Attributes for algorithmic pedagogy for courses in the study using criteria suggested by Umapathy (1984)

Attribute	Financial accounting	Management accounting	Finance	Management	Business statistics	Business law
Importance of procedural aspects	High	Medium	Medium	Low	High	Low
Breaking down a problem into several procedures	High	High	High	Low	High	Medium
Generating concepts through problem-solving	High	High	High	High	High	High
One solution to each problem	Medium	Medium	Medium	Low	Medium	Low
Learning process standardization	High	High	High	Low	High	Medium
Importance of accuracy factors	High	Medium	High	Low	High	Low

Assigning ordinal scale values as 3 for high, 2 for medium, and 1 for low, the financial accounting and business statistics courses received the highest algorithmic score of 17 points each. The finance course received 16 points, and the management accounting course received 15 points. The business law course received 10 points, and the management course received eight points. The median score was 15.5. Although median value is quantitatively valid to segregate courses as higher and lower algorithmic rigor, this is an objective but mechanistic approach. An alternative method would be to classify courses requiring students to learn the procedural aspects, with precision to solution, as higher algorithmic courses, and others as lower algorithmic courses. This is a subjective but purpose-driven approach. Based on this more qualitative classification, financial accounting, finance, business statistics, and management accounting become courses with higher algorithmic rigor. Business law and management courses become lower algorithmic courses.

Hypotheses

Students who are in work-integrated learning can bring their work-related experience to courses to provide multiple solutions to a given problem (Abeysekera, 2006). However, workplace knowledge is no substitute for learning procedures to reach exact answers, and it is expected that all students, whether in work-integrated learning or not, will most prefer the integrated learning instructional method to learn higher algorithmic courses, to construct algorithms with the most assistance from instructors. Where workplace knowledge can supplement alternative and additional solutions that do not require exact answers, work-integrated learning students are likely to most prefer the case-study-based group instructional method. The case-study-based group instructional method involves students' interaction with peers and is expected to be most favored by work-integrated learning

students to acquire and apply knowledge in the lower algorithmic courses. This study, therefore, states the following two hypotheses.

> H1: Students in work-integrated learning most prefer the interactive instructional method to learn higher algorithmic courses.
>
> H2: Students in work-integrated learning most prefer the case-study-based group instructional method to learn lower algorithmic courses.

Control Variables

Several studies have confirmed the relation between the overall GPA (grade-point average) and examination scores (Harnett, Romcke, & Yap, 2004; Tickell & Smyrnios, 2005), but not in relation to the students' instructional method preference. Several cross-sectional studies (Booth, Luckett, & Mladenovic, 1999; de Lange & Mavondo, 2004; Duff, 1999) and longitudinal studies (Ballantine, Duff, & Larres, 2008; Hall, Ramsay, & Raven, 2004) have examined gender difference in relation to student learning outcomes, and obtained mixed results. The current study included variables from the literature that may determine students' perceptions, for additional analysis: student age, work status (student in work-integrated learning or not), and enrollment status (full-time or part-time), to determine whether the students' preferences of instructional methods are statistically different above and beyond the determinants of these control variables. Table 2 outlines the proxy and measurement of variables.

TABLE 2: Explanation of variables included in the empirical model

Variable	Proxy	Measurement	Data source
Dependent			
Courses	Financial accounting (FA), management accounting (MA), finance (F), management (M), business studies (BS), business law (BL)	Five-point response score from 1 (strongly disagree) to 5 (strongly agree)	Questionnaire
Predictor			
Instructional method	Traditional method (TM), interactive method (IM), and case-study-based group (GM)	TL = 1 TM = 2 GM = 3	Predefined from literature
Control			
Study year	Student year of study	Third year = 0 Fourth year = 1	Questionnaire
Student cohort	The year in which study conducted	2006 = 0 2008 = 1	Questionnaire
GPA	Student grade point average	Between 0 and 4	Questionnaire
Gender	Student gender	Female = 0, male = 1	Questionnaire
Work status	Students in work-integrated learning (WIL) program or otherwise	Non WIL students = 0 WIL students = 1	Questionnaire
Enrollment status	A student enrolled as full time or otherwise	Part-time = 0 Full-time =1	Questionnaire

RESEARCH METHOD

Participants

Two hundred and ninety-seven students volunteered to participate; 108 (36%) students were male, and 189 (64%) were female. The overall grade point average (GPA) of the students was 2.4 (*SD* = 0.57). The average age of the students was 23.5 (*SD* = 1.5). One hundred and forty eight (50%) were fourth-year students, and 149 (50%) were third-year students. Two hundred and one students were employed (68%), and 96 students were not (32%). One hundred and forty three students (48%) were enrolled full-time, and 154 (52%) were enrolled part-time.

Experimental Design

The courses examined were from the third year of the accounting program. Courses are conducted as a single two-hour face-to-face weekly lectures over thirteen weeks; the same instructors conducted a given course using their preferred instructional method (traditional, interactive, or group case-study-based) throughout the period of the study. In planning to conduct the research, discussions held with the head of the school of accounting, and several academic staff of the accounting department at the university confirmed that third- and fourth-year undergraduate students had experienced the three instructional methods. Based on the course content, and guided by prior studies, this study selected courses in such a way that they differed in algorithmic pedagogy.

Procedure

At the time the research was conducted, students were first given a covering letter sheet outlining the purpose of the study. It stated:

> for the purpose of this study, traditional learning occurs when the teacher teaches the course content with no interaction with students in a two-hour lecture. Interactive learning occurs when the teacher teaches the course content with more interaction between students and the teacher in a two-hour lecture. Case-study-based group learning occurs when the teacher teaches the course content with minimal interaction with students, but students interact substantially with their peers and learn through case-study material in small groups of three to four in a two-hour lecture.

In preparing participants for the study, the administrator of the experiments asked participants to assume that every other factor (such as whiteboard usage) was the same for all three instructional methods across all courses. To avoid the assessment criteria influencing the responses, students were told that all courses would have a final examination only. The administrator of the experiments answered any other questions participants had before commencing the experiments which were provided to the participants as seven separate sheets that followed the covering letter.

On each sheet that solicited students' preferences of instructional method the students were told in writing that there were five possible responses to each question, on a five-point scale: strongly agree, agree, neutral, disagree, and strongly disagree. A separate question was asked about each of three instructional methods in relation to a certain course: traditional method, interactive method, and case-study-based group method. Students were asked to record their preferences in relation to each of the three instructional methods for the course in question. Below these questions, a space was provided for any comments the participants might wish to write. Six separate sheets were prepared and given to students, and each sheet

solicited students' preferences on instructional methods relating to a different course. The seventh sheet required students to record demographic information. Students were given these seven sheets (one sheet for each course and one demographic sheet) in a random order, to be completed in that sequence. As per the ethics agreement, the students were given written assurance that their participation in the study was voluntary and that their anonymity would be maintained. The research was conducted in 2006 with one student cohort and in 2008 with another student cohort. The experiments were conducted on the same day, prior to an evening lecture for both third- and fourth-year students.

RESULTS

The response scores are obtained from experiments relating to students' preferences of the three instructional methods for each course, and are analyzed using multivariate analysis of variance (MANOVA) to verify whether students' preferences relating to the three instructional methods are statistically different across the six courses in the curriculum.

In this sample, 68% of students were undertaking work-integrated learning. To test the two hypotheses, the total observations in the sample were separated into work-integrated learning students as one sub-sample (N=603=201*3, that is 201 students providing three responses for traditional, interactive learning, and case-study-based instructional methods for a given course), and other students as another sub-sample (N=288=96*3, that is 96 students providing three responses for traditional, interactive learning, and case-study-based instructional methods for a given course). First, t-test was conducted to examine whether there are differences between the aptitude measured by GPA scores between students undertaking and not undertaking work-integrated learning. There was no statistical difference between the two groups (p=0.56). Second, the univariate statistics of courses for associated with MANOVA were tabulated for the two samples. Third, the two samples were tested using MANOVA. The work-integrated student sample model (Pillai's statistic=0.51, (F = (48, 3,564) = 6.82), p=0.001) and instructional method in that model (Pillai's statistic= 0.45, (F = (12, 1,180) = 28.56), p=0.001), as well as the other student sample model (Pillai's statistic=0.57, (F = (48, 1,674) = 3.66, p=0.001)) and instructional method in that model (Pillai's statistic=0.46, (F = (12, 550) = 13.63, p=0.001)) were statistically significant at the one percent level. However, the control variables were not statistically significant at the one percent level in both models (detail results not shown here).

The MANOVA results were followed by examining the mean value contrasts of instructional methods for the work-integrated students sample and the other students sample, separately (Table 3). All the partial eta squared values that estimate the effect size are larger than 0.06, which means they have either moderate (i.e., >0.06 but <0.14) or large effect (>0.14) (Gray & Kinnear, 2012).

TABLE 3: Univariate statistics associated with MANOVA for the instructional methods

Instructional method	Cohort	TM		IM		GM				
Dependent variable		Mean	Std. error	Mean	Std. error	Mean	Std. error	F (df, n-2)	Partial η2	Inequality
Financial accounting	WIL	3.04	1.22	4.30	0.77	3.45	1.18	18.95	0.20	IM>GM>TIM
	Non WIL	3.11	1.24	4.28	0.85	3.51	1.12	7.84	0.22	IM>GM>TIM
Business statistics	WIL	3.41	1.46	4.13	0.95	3.43	1.26	7.14	0.09	IM>GM>TIM
	Non WIL	3.31	1.49	4.14	0.91	3.47	1.26	5.22	0.16	IM>GM>TIM
Finance	WIL	3.06	1.29	4.23	0.91	3.67	1.13	15.84	0.18	IM>GM>TIM
	Non WIL	3.12	1.24	4.19	0.76	3.53	1.18	7.35	0.21	IM>GM>TIM
Management accounting	WIL	3.12	1.33	4.19	0.88	3.67	1.15	11.59	0.14	IM>GM>TIM
	Non WIL	2.93	1.20	4.29	0.81	3.94	1.01	12.07	0.30	IM>GM>TIM
Business law	WIL	3.35	1.33	4.11	1.00	3.93	1.10	6.97	0.09	IM>GM>TIM
	Non WIL	3.35	1.38	4.05	0.91	3.64	1.21	3.66	0.12	IM>GM>TIM
Management	WIL	2.92	1.25	4.08	0.95	4.34	0.92	27.37	0.27	GM>IM>TIM
	Non WIL	2.95	1.23	4.24	0.86	4.28	0.87	13.46	0.33	IM>GM>TIM

TM = traditional instructional method, IM = interactive instructional method, and GM = case-study-based group instructional method.

The contrast analysis of preference of students most preferred instructional method for each course (shown under Inequality column in Table 3), indicates both work integrated learning students and other students most prefer interactive instructional method for learning high algorithmic courses (that is, financial accounting, business statistics, finance, and management accounting). This satisfies H1 where work integrated learning students' most preferred interactive instructional method to learn higher algorithmic courses.

Low algorithmic courses are management and business law courses. In the sample of students in work-integrated learning, the contrast coefficient of IM versus GM instructional methods was statistically significant (contrast coefficient = -0.45, p-value = 0.001) for the management course. This indicates that work-integrated learning students preferred case-study-based group instructional method over interactive instructional method. The contrast coefficient of IM versus the GM instructional method was not significant (contrast coefficient = 0.078, p-value =0.191) for the business law course. This indicates work-integrated learning students most preferred interactive and case-study-based group instructional methods with no clear preference between the two. This partially satisfies H2.

The contrast coefficient of IM versus GM was significant (contrast coefficient = 0.542, p-value = 0.03), indicating non-working students preferred interactive instructional method for the business law course. The business law course has a moderate level of standardized learning processes comparable to the management course that has a lower level of learning process standardization. The contrast coefficient of IM versus GM for the management course was not statistically significant (contrast coefficient = -0.167, p-value = 0.211), indicating non-working students showed no preference between the interactive and case-study-base group instructional methods.

DISCUSSION

A key contribution of this study is showing that student preference for instructional methods is based on three dimensions: the societal culture, algorithmic rigour of courses, and work-integrated learning experience (Table 4).

Power Distance Dimension of the Societal Culture

In terms of societal culture, the findings of this study are consistent with those of Hwang et al. (2005, 2008) in that, although the traditional instructional method is consistent in ensuring a greater power distance, it is not the most conducive instructional method for students meeting learning outcomes. The greater societal power distance and including non-traditional instructional methods are common elements in the work of Hwang et al. and this study. However, Hwang et al. examined a topic in intermediate accounting only. This study, on the other hand, examined student preference of three instructional methods across courses in the accounting curriculum in meeting learning outcomes, with work-integrated learning as an additional effect.

The power distance dimension of the Hofstede theory (Hofstede, 1980) of societal culture proposes that students would prefer the traditional instructional method because that instructional method establishes the greatest power distance between instructors and students. This study found that students least preferred the traditional instructional method. Abhayawansa and Fonseca (2010) examined a Sri Lankan student cohort that had had higher education in Sri Lanka and were currently undertaking tertiary education in Australia, and found that these students took responsibility in the pursuit of knowledge and, when

provided with the opportunity, desired to contribute to classroom discussion. The findings of this study are consistent with Abhayawansa and Fonseca in that students preferred instructional methods that facilitated interactions. These findings show that the Hofstede societal power dimension is not in itself sufficient to predict student preferences for instructional method.

Algorithmic Rigour

This study tested the application of algorithmic pedagogical attributes proposed by Umapathy (1984) to learning courses in an accounting curriculum which were not examined in previous studies. It found that student preference of instructional methods differed based on the algorithmic rigour of courses.

Work-Integrated Learning Experience

Students most preferred the interactive instructional method and/or case-study-based group instructional method for lower algorithmic courses, and their preference differed depending on whether they undertook work-integrated learning (Table 4).

TABLE 4: Student preference for instructional methods

	WIL students	Non-WIL students
Higher algorithmic courses		
Financial accounting, Business statistics, Finance, Management accounting	Interactive	Interactive
Lower algorithmic courses		
Business law	Interactive, case-study-based group	Interactive
Management	Case-study-based group	Interactive, case-study-based group

Work-integrated learning augments students' tacit knowledge. Tacit knowledge has three parts: skill that can be learned only by daily professional training; knowledge acquired by translating verbal knowledge into perception-action link; and part that is nebulous and cannot be verbalized because it is new and premature (Hori, 2000). The higher algorithmic courses augment explicit knowledge as often instructors rely on explicit knowledge codified in textbooks and printed and electronic materials (Edvinsson and Sullivan, 1996).

The lower algorithmic courses encourage work-integrated students to share their tacit knowledge with other students and instructors. This is especially so in the management course where tacit knowledge takes equal or greater importance over explicit knowledge to provide an understanding of decision-making in an unstructured, practical work situation.

The classroom is enriched with both tacit and explicit knowledge, and students' classroom learning benefits from a more nuanced knowledge base.
The predominance of tacit over explicit knowledge shared in the classroom was guided by the level of algorithmic rigour. Management course has the lowest algorithmic rigour. The business law course not only requires multiple solutions to a given problem, it also requires students to learn procedures. Learning in the management course was largely driven by the multiplicity of solutions and contextual environment.

Work-integrated learning students were unsure about whether peers or instructors could better provide them with conceptual and applied knowledge in a business law course, as they were likely to have more tacit knowledge. Although the work-integrated students had workplace-based tacit knowledge for peer interaction, they lacked procedural knowledge that required them to interact with the instructor or peers. Non-working students preferred interacting with the instructor to obtain explicit knowledge and tacit knowledge. It is possible that non-working students lacked the capacity to learn from peers because they lacked tacit knowledge to share, and so preferred for the instructor to share with them.

Work-integrated learning students preferred interacting with peers because this course has a large proportion of tacit knowledge. The non-working students were ambivalent about whether peers or instructors provide them with tacit knowledge, as multiple solutions are driven by tacit knowledge rather than explicit knowledge.

IMPLICATIONS

The findings have implications for designing learning outcomes and assessments at academic institutions and workplaces where students undertake work-integrated learning. Academics must increasingly think about how to enter into a new discourse of knowledge arising from students' undertaking work-integrated learning (Jones, 2000). The issue concerns integrating tacit knowledge acquired at workplaces into the curriculum. The workplace knowledge acquired by work-integrated students can be shared with other students in the classroom, but it is important for such learning to be captured by learning outcomes.

Assessments need to ensure that students have attained the set learning outcomes. Appropriate assessment techniques can direct work-integrated learning students to share knowledge in the classroom. Courses with high algorithmic rigour can encourage assessment techniques that encourage students to capture and share explicit knowledge. The assessments in low algorithmic courses can encourage work-integrated learning students to share tacit knowledge acquired at workplaces with other students in the classroom to simulate and enhance workplace-based learning in classrooms (Reeders, 2000). As tacit knowledge is difficult to codify, assessments should comprise not only written communication, but also oral communication.

Workplaces where the students undergo work-integrated learning experiences should be made aware of the subtleties in knowledge capture in different domains of courses. Academics could work with practitioners to jointly design learning outcomes and assessment techniques acceptable to both parties. This means when students are assessed for work-integrated learning experience in accounting, tax, and auditing, where learning the procedural aspects ('how to do') dominate in knowledge capture, the assessments should have an emphasis on explicit knowledge. These assessments can comprise expressing explicit knowledge using written communication. When students undergo work-integrated

learning in management and business law where the learning the process ('what to do') aspects dominate in knowledge capture, the assessments should have an emphasis on tacit knowledge. These assessments can comprise expressing tacit knowledge through oral communication.

The findings should, however, be considered in the context of several limitations encountered. First, this study was conducted at a single tertiary institution at one time interval, and generalizing findings to other tertiary institutions requires future empirical validation. The experimental setting makes findings strong in interval validity, but weak in external validity. For instance, the experimental setting manipulated the instructional methods separately, but in practice these instructional methods can be used concurrently. Second, the study examined six courses in the accounting curriculum, and expanding the number of courses in future experiments would assist in further broadening findings across a wider set of courses in the curriculum.

Given these limitations, the findings are still consistent with those of the previous three studies that reported active instructional methods to be the students' preferred choice, although there existed the possibility that students might prefer the traditional instructional method because of the societal cultural setting (Hwang et al., 2005, 2008). Results show that, to the contrary, these students most prefer the interactive instructional method in learning courses that have higher algorithm. On the other hand, the society's cultural setting may have been conducive to the interactive instructional method as it conforms to the greater power distance between the instructor and students, with the instructor becoming the revered expert in facilitating algorithmic rigour for students.

The purpose of this study was to investigate the extent to which students prefer instructional methods rather than why they prefer them, and a future study can investigate the reasons behind such selection. For instance, in one learning context, students may compete with each other for interactive instruction to obtain better praise and grades from the instructor. In another learning context, students may feel positively interdependent to help their group members to succeed in educational tasks. The role of work-integrated learning could be empirically examined for building generic skills such as critical thinking skills. These skills have been found to influence students' examination performance. The outcomes from such implementation could then serve as feedback, leading to further refinements of the students' preferred instructional methods.

The findings of this study are pertinent for three reasons. First, the study was conducted at a Sri Lankan university, and thus adds to the broader understanding of students' preferred instructional methods across different courses in an accounting curriculum in a greater power distance society and a large class setting. In a greater power distance society students are likely to revere instructors more than in a lower power distance society. Second, the study found that the students preferred the interactive instructional method for the courses with higher algorithmic rigour. It is likely that students most prefer to model instructors' knowledge, and that instructors or peers becoming involved in resolving issues serves to facilitate students' greater understanding of these courses. Being in a work-integrated learning program influenced students' most preferred instructional methods for courses with lower algorithmic rigour. Third, students least preferred the traditional instructional method regardless of the course algorithmic rigour, due to the least involvement of instructors in resolving learning issues relating to course content. The accounting curriculum comprises courses with differing algorithmic rigour. The societal culture, algorithmic rigour, and

whether students are in work-integrated learning are important factors to consider in determining an appropriate instructional method to deliver course content in the accounting curriculum.

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