APPROACH TO LEARNING OF SUB-DEGREE STUDENTS IN HONG KONG

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Abstract

The learning approaches and learning experiences of 404 sub-degree students were assessed by using a Study Process Questionnaire and a Learning Experience Questionnaire. The research focused on deep and surface learning, good teaching, appropriate workload, clear goals and standards, appropriate assessment and emphasis on independence, in the teaching and learning process. Across all samples, the results show that statistical differences were not found in gender, age and family income variables but did occur in the division variables. The results show that the Art and Design students as well as Information Technology students tended to use a deep learning approach, while Business and Management students used a surface learning approach. The research supports the notion that learning approaches can relate closely to subject area. Furthermore, this study discusses relevant strategies for enhancing deep learning for sub-degree students.

Key words: Approach to Learning, Deep Learning, Study Process Questionnaire and Course Experience Questionnaire

Introduction

In recent years the numbers of students entering higher education in Hong Kong has grown rapidly. The Hong Kong Government set a target in 2000 that within 10 years, 60% of senior secondary school leavers would receive tertiary education (Tung, 2000). It was believed that in order to meet the needs of the knowledge-based economy, Hong Kong has to increase the number of places in tertiary education, like most developed countries. For this reason, an ideology of flexibility and diversity were proposed by the policy makers, specifically providing about 28 thousand additional places for higher

education, bringing the total number to around 55 thousand. In order to achieve this target, the Government promised to facilitate tertiary institutions, private enterprises and other organisations to provide options other than the traditional sixth form education, such as professional diploma courses and sub-degree courses. By co-ordinating with these organizations and allocating resources such as non-means-tested loan schemes and low-interest loan schemes, the government attempted to build a higher education system that offers different modes of learning.

According to the official source, the achieved ratio has exceeded the target of providing tertiary education places for 60% of senior secondary school leavers. The proportion of student places provided by tertiary institutions has been increased from about 30% in 2000 to 66% in 2005 (Cheung, 2006). The official EMB figures also show that there were 17 thousand undergraduate places and 28 thousand sub-degree places in 2005-2006 – an increase of 18% in undergraduate places and 93% in sub-degree places, including associate degree and higher diploma programmes, compared with the figures in 2000-2001 (Government Information Centre, 2006). This is a massive increase in the numbers of sub-degree students participating in higher

education.

The huge extension of sub-degree student places in the tertiary education system in Hong Kong has generated potential difficulties. Though the government has committed student financial assistance schemes with a major form of loan to help needy students, it provides little strategic guidance to monitor the extension of sub-degree courses. Moving from elite to mass post-secondary education in a very short period of time and at little cost to the Government means that the quality of the programmes may be questionable because most of this spectacular expansion has come through enrolments in associate degrees in community colleges where many are private organisations and may follow their own way of operation without giving much consideration to learning quality.

Addressing the quality issues, Cheung (2006) pointed out that the Government should consider the following five aspects: setting up a quality assurance mechanism to ensure the quality of sub-degree courses; monitoring over-supply of sub-degree places; combining the Local Student Finance Scheme and the Financial Assistance Scheme for Post-secondary Students;

providing appropriate facilities and student development services to post-secondary students; and gradually increasing the number of degree places in keeping with the needs arising from social development and the academic structure reform.

The development of a quality mass post-secondary education is a long process. One of the key issues is to examine learning experiences of students because it can reflect learning quality and may lead to an indication of directions for service development. The expansion in tertiary education creates opportunities for more students, especially those with a working class background. Various studies have indicated that there are class differences in educational attainment (Bogenschneider & Steinberg, 1994), students' study effort and organisational activities (Camp, 1990; Kohn, 1981). Others are interested in gender differences in education (Pong, 1991; Post and Pong, 1998; Post, 2004).

The present study aims to examine the learning experience of sub-degree students by selecting age, gender and socio-economic status as key variables. Gathering quantitative data from different sub-degree programmes in a

university in Hong Kong, this study explores whether the factors of gender and socio-economic status have an influence on students' learning experiences. In particular, the paper examines whether there is a relationship between study process, i.e. deep approach or surface approach, and students' learning experience, and, if so, whether gender, age and socio-economic status, such as family income, and subject area have an effect on the students' learning experiences and approaches.

Method

The sampling in this study was a stratified sampling design. In the first stage, the total population of all sub-degree programmes from a department of continuing studies at a university was obtained. Then a proportional sampling method by nature of courses was applied. At the second stage, students were invited to complete a questionnaire with assistance from school administrators and teachers.

The subjects in this study were sub-degree students, including those who studied higher diplomas and associate degrees. There were 404 students in total (239 girls and 165 boys) who completed the questionnaires. The

samples included 310 students who studied higher diploma programmes and 94 students who studied associate degree programmes. All students in the sample completed details on a Study Process Questionnaire (SPQ) and on a Course Experience Questionnaire (CEQ).

Based on the revised two-factor SPQ and CEQ, a student questionnaire was used in the study. The SPQ was first designed by Biggs (1987) and then revised by Biggs, Kember and Leung (2001). The original SPQ is a 42-item self report instrument that measures three major learning approaches: surface, deep and achieving. As reported, the instrument achieved satisfactory test-retest reliability and internal consistency alpha coefficients (Biggs, 1987). The satisfactory reliability results also appear in other studies, such as O'Neil and Child (1984) as well as Hattie and Watkins (1981). The revised SPQ has 20 items that measure deep and surface approaches only. Judged by means of multivariate Lagrange Multiplier and Wald Tests accomplished in an EQS programme (Bentler, 1995), the total items were refined and reduced to 20 items, forming two main scales, Deep Approach and Surface Approach, with ten items each. The new revised scales were then tested by standardised root mean squared residual, comparative fit index and Cronbach alpha. The

results gained were acceptable and satisfactory. Biggs et al (2001) believe that the revised questionnaire is an ideal tool to evaluate students' learning and it can help teachers to ensure that assessments are constructively aligned to promote deep approaches to learning.

Deep learning, according to Biggs (1992), means understanding and coming to grips with the heart of the problem. The deep learning approach consists of deep motive and deep strategy. Deep motive is about intrinsic interest. For example, 'I find that many subjects can become very interesting once I get into them'. Deep strategy is about maximizing meaning. For example, 'In reading new material, I am reminded of things I already know, and see them in a new light.' Surface learning involves the reproduction of sufficient detail to meet demands minimally and the surface learning approach consists of surface motive and surface strategy. Surface motive relates to fear of failure. For example, 'I chose my present subjects mainly to help me get a good job when I leave school, not because I'm particularly interested in them.' Surface strategy means a narrow target or rote learning. For example, 'I tend to study what's set; I don't do anything extra.'

The CEQ is a popular instrument that was originally designed as a performance indicator of teaching effectiveness in the 1980s by Ramsden (1991). It is based on a theory of university teaching and learning in which students' perceptions of the curriculum, instruction and assessment are regarded as key elements of their learning outcomes (Ramsden, 1992, 1997). The questionnaire is widely used as a measure of teaching quality. For example, the Graduate Career Council in Australia has used the questionnaire to measure student feedback by higher education institutions on an annual basis for more than ten years (Australian Vice-Chancellors' Committee, 2006).

The full CEQ contains 36 items consisting of six scales: Good Teaching, Clear Goals, Workload, Assessment, Independence and Generic Skills. There are also 23-item and 30-item versions. It was reported that these versions established a satisfactory reliability and validity in various studies. For example, alpha coefficients indicating moderate to high levels of internal consistency for all scales were found in the studies of Wilson, Lizzio and Ramsden (1997) that compared samples from 1991 with those from 1994 involving five independent studies.

For both the SPQ and CEQ, students were asked to respond on a five-point scale to indicate their level of agreement, ranging from strongly agree to strongly disagree. In addition, the questionnaire in the study also asked questions about gender, age, family income and housing in order to provide information about respondents' personal characteristics and socio-economic status. Students normally had about fifteen to twenty minutes to complete the questionnaire.

After data collection, the data were coded and analysed by the SPSS 14.0 computer program. The internal consistency of the scales was examined by Cronbach's alpha reliability coefficient and Pearson's r correlation coefficient to verify whether the items were consistent and homogeneous (Edwards, 1969; Guilford & Fruchter, 1973; Tuckman, 1972). Having assessed the reliability of the instruments and background profiles of the samples at large, attention was then shifted to group differences. The main focus was on the inter-group differences and differences among groups. Statistical tests, and analysis of variance were performed using gender, family income and division (academic subject grouping) as independent variables and the deep and surface approaches as dependent variables. These statistical tests indicated whether

the various total raw scores were significantly affected by one single factor or any two of the combination.

The present analysis was conducted with the following assumptions in mind. First, the Learning Process Questionnaire and Course Experience Questionnaire would have a close relationship in which the use of both questionnaires would appropriately reflect students' positive and negative experiences in learning. Secondly, there would be no significant differences across gender, age, family income and division on deep learning and surface learning approaches, as well as on different aspects of course experience, such as emphasis on independence and good teaching.

Results

The internal consistency of the study process and course experience scores were examined using Cronbach's alpha reliability coefficients. Pearson's correlation coefficient calculations were also carried out to verify whether the items were consistent and homogeneous. Having assessed the profiles for the overall samples, attention could then shift to group differences. For the purposes of the present study, the main focus was on gender and socio-economic status differences. Analysis of variance was applied using

gender, age, academic grouping and income as independent variables and the various scale scores as dependent variables. Variance analyses gave an indication of whether the various scores were affected by single factors as well as combinations of factors.

Internal consistency analyses applied to the combined 10-item Deep Approach Scale and 10-item Surface Approach Scale obtained a high alpha of 0.84 and of 0.80 respectively (Table 1). The 30-item Course Experience Questionnaire also has an acceptable alpha of 0.75 in the Teaching subscale. In the full scale of CEQ, a high alpha of 0.81 was also found. An acceptable alpha of 0.75 was found in the good teaching scale and moderate alphas were found in Appropriate Workload, Appropriate Assessment, Clear Goals and Standards subscales. Emphasis on Independence is a little low but that was affected by the statement of student's choices of subjects. Generally speaking students admitted that they had choices over the range of subjects that they studied. This tendency is quite different from the dimension of other statements that affects the consistency of the scale. Deleting this statement, the alpha score is of moderate level.

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Table 1 about here

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The study first deals with the relationship between learning approaches and learning experience. In order to explore these relationships, Pearson correlation coefficients were calculated between the subscales of SPQ and CEQ (Table 2).

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Table 2 about here

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Table 2 shows that 14 out of 36 correlations were statistically significant and were greater than or equal to 0.30. For behaviour sciences, 0.30 is typically interpreted as a medium coefficient (Green, S. et al, 2000). The correlation of Deep Motive is correlated very highly with Deep Strategy ($r=0.77$, $p<0.01$) and the correlation of Surface Motive is correlated fairly highly with Surface Strategy ($r=0.67$, $p<0.01$). The correlation of Deep Motive tended to be positively associated with Emphasis on Independence ($r=0.32$, $p<0.01$) and Good Teaching ($r=0.31$, $p<0.01$), while the correlation of Deep Strategy tended to be positively associated with Good Teaching ($r=0.38$, $p<0.01$) and Clear Goals and Standards ($r=0.32$, $p<0.01$). This means that the students with

deep learning motives tended to state that the course had encouraged them to develop their own academic interests and the teaching staff had motivated them to do their best work. The students with deep strategy tended to say they were encouraged to develop their own academic interests and were clear about the aims and objectives of the course.

Consistent with the negative aspect of the scales measured, Surface Motive and Surface Strategy are either correlated with the Course Experience subscales in a very small way or negatively correlated with the scales. Interestingly, both scales have a medium negative correlation with the Appropriate Assessment subscale. This means that the students with surface motive or surface strategy tended to say that to do well on this course all you really need is a good memory, and tended to express the opinion that feedback on student work is usually provided only in the form of marks and grades.

In addition, relatively large correlations were found between Good Teaching and Emphasis on Independence ($r=0.57$, $p<0.01$) as well as between Good Teaching and Clear Goals and Standards ($r=0.50$, $p<0.01$). This means that

if the students say their teachers motivate them to do their work or their teacher puts a lot of time into commenting on their work, they are more likely to say that they are being encouraged to develop their own academic interests as far as possible and that they have a great deal of choice over learning. The correlation between Good Teaching and Clear Goals and Standards also indicates that if the students said that their teachers showed real interest in them, they tended to say that the aims and objectives of the course were made clear.

Medium correlation coefficients were also found between Emphasis on Independence and Clear Goals ($r=0.35$, $p<0.01$), Appropriate Workload and Good Teaching ($r=0.36$, $p<0.01$), Appropriate Workload and Appropriate Assessment ($r=0.38$, $p<0.01$), and Appropriate Workload and Clear Goals ($r=0.34$, $p<0.01$). These correlations support the idea that there are positive relationships between the two aspects measured. For example, the higher the score given by students who responded on the Appropriate Workload scale, the more highly they would rate Good Teaching, Appropriate Assessment as well as Clear Goals scales. The significant correlations of the CEQ also indicate that the CEQ is a reliable tool and all the subscales tend to measure

similarly.

Group differences

A one-way multivariate analysis of variance (MANOVA) was conducted to determine the effect of the factors of gender, age, family income and division studied on the two dependent variables, namely deep learning approach and surface learning approach. Significant differences were found among the division variables on the dependent measures, Wilks' $\Lambda = 0.94$, $F(6,524)=2.99$, $p<0.01$. The multivariate partial η^2 based on Wilks' Λ was 0.03. The effect size may be described as quite small.

Table 3 about here

Analyses of variances (ANOVA) on each dependent variable were conducted as follow-up tests to the MANOVA. The ANOVA on the surface learning approach was significant, $F(3, 263)=3.94$, $p<0.01$, partial $\eta^2=0.04$ while the ANOVA on the deep learning approach was not significant.

As there is a significant multivariate effect, the univariate effects were further examined. Pair-wise comparisons Pos hoc analyses to the univariate

ANOVA for surface learning approach were conducted to find out which division links with surface learning approach most strongly. Each pair-wise comparison was tested at the 0.025 level. As the tests of homogeneity of variance were not significant, a Dunnett's C test of not assuming equal variances was used. The Dunnett's C multiple comparison tests indicate that the mean differences of Business and Management (mean=30.46, SD=6.49) is significantly different from Language and Translation (mean=26.78, SD=6.88) as well as significant mean differences between Art and Design (mean=31.56, SD=5.91) and Business and Management in the surface learning approach. The tests also show that there are significant mean differences between Information Technology (mean=30.35, SD=5.54) and Business and Management (mean=28.03, SD=6.31) in the deep learning approach. Thus, the results suggest that different subjects may have different learning approaches. In this case, Information Technology students seem to use a deep learning approach while Business and Management students tend to use a surface approach.

Table 4 shows the one-way ANOVA results over the course experience scales for the division variable. As far as the scales of Emphasis on Independence,

Good Teaching, Clear Goals and Standards are concerned, significant division (academic grouping) differences were not found. Significant differences however were found in Appropriate Assessment, $F(3, 390)=9.23$, $p<0.001$, $\eta^2=0.07$, and Appropriate Workload scales, $F(3,386)=4.79$, $p<0.01$, $\eta^2=0.04$. For the significant ANOVA, follow up tests were conducted to evaluate pair-wise differences among the means. The variances (the standard deviations squared) among the four groups range from 4.84 to 7.51 (Appropriate Workload scale) and from 6.3 to 9.99 (Appropriate Assessment scale) and the tests of homogeneity of variance were not significant. Therefore the Dunnett's C test was used. The results of mean differences show that in the Appropriate Assessment Scale, Art and Design (mean=18.29, SD=3.16) differed significantly from Business and Management (mean=15.79, SD=2.8). In the Appropriate Workload Scale, Language and Translation (mean=14.71, SD=2.54) differed significantly from Business and Management (mean=13.80, SD=2.69) as well as Art and Design (mean=12.74, SD=2.74). This means that more students of Art and Design tend to think that they have appropriate assessment than students of Business and Management. And more students of Language and Translation tend to think that they have an appropriate workload than students of Business and Management, and of Art.

Table 4 about here

Discussion

This study uses statistical techniques to reflect mean differences or relationships between variables. In particular, it examines whether the population mean for deep learning scores and surface learning scores are the same or different for students with different gender, age, family income and study discipline. It highlights whether there is a relationship between learning approaches and course experience and particularly looks at major differences among the groups studied. This section mainly focuses on two aspects: the group differences and the ways of enhancing deep learning for sub-degree students.

First, the findings of this study in the samples indicate that there is little difference across gender, age and family income, but there is a statistically significant difference in the field of subject variable. Interestingly, the difference appears mainly in the subject discipline the students take. From the students' responses to the survey, the students on Art and Design courses and Information Technology students tend to use a deep learning approach

while Business and Management students seem to use a surface learning approach. This difference may be due to the fact that Art and Design and Information Technology are more technical, practical and creative, so these factors may contribute to a flexible deep learning environment. On the other hand, business and management may often be theoretical, traditional, classroom-based talk and chalk style, so many students tend to use a surface approach to handle the subject. The negative correlations between surface approaches and appropriate assessment mean that when students adapt to using a surface learning approach, they tend to think that they can get through the course just by working hard around exam times and think that to do well on this course just needs a good memory.

This is not only in the case for Business and Management courses: a surface learning approach may be quite typical, especially for courses run by traditional-style instructors or tutors. Though the issues of learning approaches in the Hong Kong context have been widely reported (Biggs, 1992), the debate however mainly focuses on reliability and validity of the instrument or whether Asian students are more prone to relying on rote learning than their western peers (Samuelowicz, 1987). So far there is no

conclusive evidence to support the view that an Asian learner is a rote learner (Watkins, 1991). The results of this study however point to a new direction and suggest that the subject matter can make a difference to learning approaches. This study supports the view that learning approaches can relate to subject nature and very possibly to the style of teaching delivery in different subjects. As each different subject may have its own theoretical basis and knowledge structure, caution should be exercised to be aware of the norms of individual subject differences when researching into learning approaches.

Secondly, both SPQ and CEQ reflect a broader picture of the student experience that helps us to understand the learning needs in sub-degree students. The SPQ focusing on deep and surface learning approaches provides an important tool to evaluate fundamental attitudes and behaviour in learning while CEQ using more dimensions helps to figure out the students' perspectives in response to learning and teaching in the education process. As discussed before, deep learning and surface learning can be affected by cultural factors. Like other undergraduate students, sub-degree students need to work hard to gain a good learning experience. Those who cannot get

a place of study at a university often take up a sub-degree course that is normally run by a continuing education provider. This situation of second choice may sometimes be difficult for youngsters because the loss of first choice of a university degree place might have an effect on their self image.

This study points out that there is a need to provide support to sub-degree students to enhance their learning experience. According to the results shown, significant differences appear in the main SPQ scales of deep learning and surface learning, and the CEQ subscales of appropriate assessment and appropriate workload. Such differences on the one hand indicate the norms of differences between fields of studies; on the other hand they may become the specific areas for improvement because of the statistically significant differences shown. Thus, the data-based findings suggest that appropriate assessment and workload should be provided, as well as teacher attitudes being supportive, in order to avoid the acceleration of surface learning.

According to Biggs (1999, 2001), there are three teaching levels. The first level is teacher-centred and is a transmission model of teaching. This level does not promote reflection, whereby the teacher asks, ‘Is my present practice

the best way of doing this?' Level 2 theory emphasizes what the teacher does: forward planning, good management skills and an armoury of teaching competencies. It focuses on what teachers do. Level 3 focuses not on teachers, but on teaching that leads to learning. It is believed that unless appropriate learning takes place, teaching is just an empty display. For this reason, it is suggested that focusing on what students do should be emphasized in the learning process. In addition, Biggs (1999) pointed out the importance of aligning curriculum objectives, teaching and learning activities and assessment tasks so that learning objectives can be measured and then achieved. He also suggested that problem-based learning and learning portfolios can be ways to enhance deep learning. For sub-degree programmes, while some course providers designed more activity-based and hands-on sections for students in order to help them to grasp practical skills, others, however, may still use the traditional talk and chalk approach. The 'learning by doing' and deep learning approach would no doubt be worth adopting by traditional teachers.

Based on observations, the following aspects are likely to be important when setting up a quality teaching and learning enhancement system for sub-degree

students. First, knowledge-sharing about teaching methods and assessment tasks may be promoted by the course provider. A genuine sharing of problems and solutions in the process would help build a cooperative teaching force. Secondly, a transparent quality assurance and quality enhancement system should be considered for School development. The course providers need to make explicit the teaching delivery system and to establish a built-in mechanism that would lead to continual review and improvement of current practice. The mechanism should have the flexibility of allowing educational innovations and encouraging new initiatives in responding to the changing conditions. The advent of a Qualifications Framework in Hong Kong would no doubt be a challenge for many course providers, especially when they respond to the issues of how to improve student learning quality (Leong & Wong, 2004). Besides that, other learning enhancement strategies, such as co-operative learning or 'learn how to learn' workshops, may also be effective ways to enhance deep learning for sub-degree students.

Conclusion

The SPQ and CEQ, which were employed throughout the research, yielded

measures of deep learning, surface learning approaches, as well as learning experience. Analysis of gender, age, income and division differences showed that statistically significant differences appear in the division variable, but not in gender, age and income variables. The division differences imply that subject area may have an impact on students' learning approach. To remedy the shortcomings, suitable strategies may be worth considering by course providers who run traditional courses. The use of active learning techniques, such as e-learning, collaborative learning and problem-based learning, are likely to be meaningful ways to improve the situation and subsequently benefit the sub-degree learners.

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TABLE 1: Reliability

Scale	N	Mean	Standard Deviation	Alpha
Deep Motive	397	2.86	0.65	0.70
Deep Strategy	393	2.89	0.67	0.74
Surface Motive	397	2.84	0.74	0.70
Surface Strategy	398	3.05	0.70	0.65
Deep Learning Approach	387	2.87	0.62	0.84
Surface Learning Approach	392	2.94	0.66	0.80
Emphasis on Independence	387	3.04	0.41	0.37*
Good Teaching	390	3.19	0.48	0.75
Appropriate Workload	390	2.78	0.53	0.55
Appropriate Assessment	394	2.71	0.49	0.56
Clear Goals and Standards	392	3.06	0.52	0.50
Course Experience Questionnaire	364	3.39	0.35	0.81

Note: * If item 21 is deleted, the alpha will be 0.63. Item 21 is that there are few opportunities to choose the particular areas you want to study. Generally speaking, students gave good ratings in this item, which is different from other items in the scale.

Table 2: Pearson product-moment correlations between learning approaches and learning experience scales

		1	2	3	4	5	6	7	8
1.	Deep Motive								
2.	Deep Strategy	0.77**							
3.	Surface Motive	0.20**	0.09						
4.	Surface Strategy	0.14**	0.06	0.67**					
5.	Emphasis on Independence	0.32**	0.40**	0.01	0.07**				
6.	Good Teaching	0.31**	0.38**	-0.07	-0.02**	0.57**			
7.	Appropriate Workload	0.13*	0.18**	-0.22**	-0.21**	0.23**	0.36**		
8.	Appropriate Assessment	0.08	0.10*	-0.30**	-0.35**	0.10	0.18**	0.38**	
9.	Clear Goals and Standard	0.29**	0.32**	-0.19**	-0.1*	0.35**	0.50**	0.34**	0.26**

Note: *p<0.5, **p<0.01

Table 3: Analysis of variance over learning approaches for the division variable

		N	Mean	Standard Deviation	F
Deep Learning Approach	Art	34	3.16	0.59	4.37**
	Information Technology	37	3.04	0.55	
	Language	76	2.89	0.57	
	Business	240	2.80	0.63	
	Total	387	2.87	0.62	
Surface Learning Approach	Business	244	3.05	0.65	8.57***
	Information Technology	39	3.02	0.56	
	Language	76	2.68	0.69	
	Art	33	2.68	0.53	
	Total	392	2.94	0.66	

Note: **p<0.01, ***p<0.001; the range of scales is from 1 to 5, where 5 is the most favourable response.

Table 4: Analysis of variance over course experience scales for the division variable

		N	Mean	Standard Deviation	F
Emphasis on Independence	Information Technology	37	3.18	0.38	2.27
	Art	35	3.11	0.31	
	Language	75	3.02	0.42	
	Business	240	3.01	0.43	
	Total	387	3.04	0.41	
Good Teaching	Information Technology	38	3.35	0.38	2.13
	Language	76	3.24	0.47	
	Business	242	3.16	0.49	
	Art	34	3.11	0.51	
	Total	390	3.19	0.48	
Appropriate Workload	Language	75	2.94	0.51	4.79**
	Information Technology	36	2.82	0.44	
	Business	245	2.76	0.54	
	Art	34	2.55	0.55	
	Total	390	2.78	0.53	
Appropriate Assessment	Art	35	3.05	0.53	9.23***
	Information Technology	37	2.82	0.42	
	Language	77	2.77	0.50	
	Business	245	2.63	0.47	
	Total	394	2.71	0.49	
Clear Goals and Standards	Business	243	3.09	0.51	1.21
	Language	76	3.05	0.54	
	Information Technology	38	3.03	0.49	
	Art	35	2.92	0.61	
	Total	392	3.06	0.52	

Note: **p<0.01, ***p<0.001; the range of scales is from 1 to 5, where 5 is the most favourable response.