

**Developments in Business Simulation and Experiential Learning, Volume 33, 2006**  
**STUDENT PREFERENCE TO MODE OF LEARNING IN HONG KONG**

Sek-foo Chan  
The Hong Kong Polytechnic University

Karen Ka-leung Moon  
The Hong Kong Polytechnic University

Jimmy Chang  
The Hong Kong Polytechnic University  
tcchangj@inet.polyu.edu.hk

Bosco Yu  
The Hong Kong Polytechnic University

Joyce Chan  
The Hong Kong Polytechnic University

Lai-kuen Chan  
The Hong Kong Polytechnic University

Chester KM To  
The Hong Kong Polytechnic University

Ka-fai Choi  
The Hong Kong Polytechnic University

Paulene Hsia  
The Hong Kong Polytechnic University

**ABSTRACT**

The authors identified seven factors in student's preference to mode of learning in one of the Hong Kong universities. These factors are named as 'Learning Atmosphere', 'Learning Autonomy', 'Motivation and Reward', 'Material and Answer', 'Direct Instruction', and 'Structure of Teaching'. The findings of this paper shed some light on the subject matter on the mode of learning for Hong Kong students and suggest that Hong Kong students are not just rote learner and their learning behavior can be more than one type.

Keywords: mode of learning, student ideal learning environment, Hong Kong student study behavior

**INTRODUCTION**

As students are getting exposed to the use of multimedia, their expectations of classroom teaching practices will tend to vary. Snyder and Vaughan (1998) in their previous study on student expectations on multimedia indicated that students that had used multimedia before would prefer to have such included in their ideals of the optimal classroom teaching practices. As discussed by other researchers (Kuehn, 1994, Ramarapu, Cites & Overby, 1996, Snyder & Vaughan 1998), programs based on computer-assisted instruction and multimedia are popular in education. The importance of multimedia is used in information presentation and the coordination of all these audio-visual technologies combined to apply in the medium

of multimedia (Bruder, 1991, Synder, 1996, Snyder & Vaughan, 1996, Snyder & Vaughan, 1998). In the Hong Kong study by Chang, et al (2004), 'information technology factor', 'student activity/work factor', and 'traditional teaching factor' were identified as principal dimensions of teaching methods perceived by Hong Kong students. In another study by Chang, et al (2005), three Clusters were identified within the respondents in the study and named as 'Traditional Teaching Group', 'Student Activity Group', and 'All Low Group respectively'. Nonetheless, we have forgotten the fundamental issue and that is the student preference to mode of learning. According to Biggs (1987), student's learning is complex. It all depends on the followings:

1. Individual characteristics of students and teachers
2. The method of instruction and the nature of the curriculum
3. How students and teachers perceive their interactions with each other
4. Family environment
5. Intricate and interrelated sets of factors:
  - i. Background characteristics
  - ii. Social status
  - iii. Ethnic group membership
  - iv. Social-psychological processes in family
  - v. Impact on peers
  - vi. Out-of-classroom factors

Others see learning as an outcome in terms of a state of knowledge rather than as an outcome in terms of a process of constructing. To understand how learning may occur, Light and Cox (2001: 47) proposed a framework of five learning gaps. They can be described as gap between: recall and understanding; understanding and ability; ability and wanting to; wanting to and actually doing; and actually doing and ongoing change. There is no prescribed right way. Experience suggests that a balanced approach is appropriate. Balanced means different things to different professionals in different contexts. Tokoro and Steels (2003) identified five main themes of student learning. They must be learner-centred under an environment that favours discussion and exchange of ideas as a means of knowledge transfer. The importance of stimulation, self-activity, motivation, cognitive development and other aspects are relevant for developing the mind in learning. The last two themes are that learning must be social and fun. The arguments are supported by the widespread use of small-group tutorials, workshops and seminars in supplementing tradition classroom teaching. Thus, taking into account of all these ideas, the authors wish to conduct a preliminary study in Hong Kong to examine and understand the study behaviour (their preference to mode of learning) of the first year undergraduate Hong Kong students in one of the universities in Hong Kong.

## METHODOLOGY

This research study examines the behavioral preferences of the Hong Kong undergraduates towards their ideal learning environment. The study started with a literature review on teaching and learning. Then, a one and half -page questionnaire with 34 Likert-type statements on a 5-point scale ranging from least preferred (0) to most preferred (4) were derived. The questionnaires were distributed to 108 Hong Kong students (who are of Chinese Origin) in a mass lecture of Principles of Management in Fashion Business. All these Chinese students were year one students enrolling in the course of BA (Hons) of Fashion and Textile in the Institute of Textiles and Clothing at the Hong Kong Polytechnic University.

With the aid of the SPSS statistical package, descriptive statistics and exploratory factor analysis were adopted to analyze the nature of the variables of learning preferences. Mean scores of the descriptive statistics analysis are used to express the central tendency of each item while exploratory factor analysis is generally used to define the underlying structure in a data matrix, i.e. interrelationships (correlations) among a large number of variables by defining a set of common underlying dimensions (Hair et al., 1998).

## RESULTS AND DISCUSSION

### Descriptive Statistics of Respondents' Characteristics

Among the 108 responding students, nearly 90 percent of all (91, 89%) came directly from the local senior second schools. A few had completed Higher Diploma (4, 3.7%) and Ordinary Diploma (6, 5.6%), while two came from overseas (2, 1.8%) (see Table 1). Before enrolling in this course, they had taken subjects of Arts (48, 44.4%), Science (44, 40.7%) and Commerce (38, 35.2%). Overall, the distribution was rather even, indicating that the respondents had a diverse academic background. Moreover, they had different intentions in choosing their specialism in the second year. Forty-two students (38.9%) wanted to take Fashion Design as their specialism while twenty-two students (25%) preferred to take Retailing. Fourteen students (13%) chose Marketing stream while eight of them (7.4%) planned to enroll in the Technology stream.

### Preferential Ranking of Learning Environment

In this study, the respondents had a positive attitude towards most of the items in the questionnaire. Table 2 shows the ranking of the 34 items according to their mean scores. Six items had a mean core over 3.0, 26 over 2.0, and 2 over 1.0. Nevertheless, none was below 1.0. Amongst all, questions of 'would have a professor who was not just an instructor, but more an explainer, entertainer and friend' and 'would provide experiences and material that is relevant to

Table 1. Summary of Respondents' Academic Background

Variables		Frequency (n)	Percentage (%)
Academic background	Secondary school	91	89.0
	Higher Diploma	4	3.7
	Diploma	6	5.6
	Others	2	1.9
Subjects taken in secondary school	Arts	48	44.4
	Science	44	40.7
	Commerce	38	35.2
	Others	6	5.6
Specialism intended to be selected	Fashion Design	42	38.9
	Fashion retailing	27	25.0
	Marketing & merchandising	14	13.0
	Fashion technology	8	7.4
Remark:		n=108	

what I need to know later' received the highest mean scores of 3.22 and 3.20; while questions of 'would have the focus on having the right answers rather than on discussing methods on how to solve problems' and 'would provide assignments with practical everyday applications' had the lowest scores of 1.46 and 1.83.

This indicated that most of these students highly valued the role of instructors as explainer, entertainer and friend. Also, they saw their importance of the subject knowledge to their future needs. However, they seemed not to prefer direct instruction and 'spoon feed' teaching style and their pursuance of knowledge was not confined to daily operational tasks. They were expecting for more knowledge at managerial or strategic levels.

### Factor Analysis of the Learning Environment Preferences

To have a deeper understanding on the nature of the 34 items regarding students' behavioral preferences towards different leaning modes, a principal component factor analysis was used for this research study. A cut-off point of factor loading of 0.40 was conducted to include items in the interpretation of a factor. An inspection of the factor loadings, 14 of the initial 34 items were found either loaded on several factors or had low loadings, reflecting the heterogeneity of items. After several runs, these problematic items were deleted from further analysis, and the resulting solutions were improved. Finally, 20 items were left and seven clean factors with Eigenvalue equal to or greater than one were yielded. The Kaiser-Meyer-Olkin (KMO) Index was 0.648 and the total variance in the original data explained was 64.682% (see Table 3). This confirmed that factor analysis was statistically viable to be run amongst the dataset and the resulting factors accounted for a large portion of the variance among the variables.

Factor 1 was the main factor derived from the exploratory factor analysis which included items of 'would

provide a relaxed atmosphere where discussion is encouraged', 'would provide a workshop/seminar atmosphere so that we can exchange ideas & evaluate our own perspectives on subject matter', and 'would provide a classroom atmosphere of exploring and debating new ideas'. The Eigenvalue of this factor was 3.315 with a factor mean score of 2.85 and a Cronbach-alpha of 0.728. In light of the content of these three items, we renamed it as 'Learning Atmosphere'. Its mean score was the second highest, indicating the respondents highly valued a relaxed learning atmosphere that would allow them to exchange as well as to explore new ideas.

Factor 2 was the second derived factor including the items of 'would be where the professor doesn't tell me the answers; rather s/he shows me how to find the answers for my self', 'would let me learn on my own because I hate being spoon-fed by professors/tutors', and 'would be where I have my own opinions and I think for myself.' The Eigenvalue was 1.879 and the mean score was recorded as 2.475. The Cronbach-alpha is equal to 0.661. It was renamed as 'Learning Autonomy'. The ranking of the mean score of this factor was in the middle, yet, still over the neutral point of 2.0. This indicated that the responding students had a rather positive attitude towards autonomy learning.

Factor 3 had items of 'would reward me with high grades for independent thought', 'would reward me with good grades when I worked hard to learn the material' and 'would have a professor who was not just an instructor, but more an explainer, entertainer and friend' (Eigenvalue = 1.673; mean score = 2.898; Cronbach-alpha = 0.618). We called this factor as 'Motivation and Reward'. This factor has the highest mean score value. This strongly indicated that this group of students was mostly reward-oriented. They linked their learning to the rewards they can receive.

Factor 4 also had three items, 'would emphasize class discussion but I would expect the professor/tutor to tell us the right answer' 'would be where I take effective notes on

**Developments in Business Simulation and Experiential Learning, Volume 33, 2006**

**Table 2. Mean Scores of Respondents' Behavioral Preferences of Learning Modes**

Items	Mean	SD
would have the focus on having the right answers rather than on discussing methods on how to solve problems.	1.46	0.891
would provide assignments with practical everyday applications	1.83	1.037
would be where I could listen intently to the professor/tutor and not to classmates and peers for answers to questions	2.08	0.918
would include straightforward, not tricky tests, covering only what has been taught and nothing else	2.09	1.019
would be lectures since I am get the information I need to know most efficiently	2.15	0.925
would be where the professor doesn't tell me the answers; rather s/he shows me how to find the answers for myself	2.21	1.024
would be where I would have a lot of control over the course content and class discussion	2.23	0.816
would provide me with a professor/tutor who is a source of expertise only in a particular subject area	2.24	0.852
would let me learn on my own because I hate being spoon-fed by professors/tutors	2.27	0.953
would include exams and assessment as pan of the learning process	2.28	0.926
would be a 'free-flowing' class that does not follow a said outline	2.38	1.011
would value my classmates as sources of information, not only as companions	2.44	0.835
include grading that is by a pre-arranged point system (for homework, tests, final) since I think that is most fair	2.45	0.847
would emphasize class discussion but I would expect the professor/tutor to tell us the right answer	2.56	0.899
would be where learning is a mutual experience where I contribute to the teaching and learning in class	2.57	0.751
would reward me with high grades for independent thought	2.59	0.821
would be where the professor/tutor is an expert who knows all the answers	2.60	0.875
is where my opinion counts, but I have to support it with factual evidence	2.61	0.807
would be where I can make connections among various subjects and am encouraged to construct an adequate arguments	2.67	0.820
would provide a workshop or seminar atmosphere so that we can exchange ideas and evaluate our own perspectives on the subject matter	2.69	0.803
would be where I take effective notes on what is presented in class and reproduce that information on tests.	2.71	0.786
would provide a flexible class where I can explore independent learning options	2.87	0.821
would reward me with good grades when I worked hard to learn me material	2.88	0.782
would let me learn from my classmates and peers	2.89	0.740
would provide a classroom atmosphere of exploring and debating new ideas	2.90	0.831
would have die professor/tutor giving me all the theory and information I need to know	2.93	0.828
would be where I have my own opinions and I think for myself	2.94	0.863
would provide a relaxed atmosphere where discussion is encouraged.	2.94	0.783
would take learning seriously and be where I feel personally motivated to learn the subject	3.03	0.814
would encourage me to learn using lots of different learning methods	3.04	0.784
would be where the professor provides me with clear directions and guidance for all course activities and assignments	3.08	0.738
would allow peers the right to have their own opinions	3.14	0.690
would provide experiences and material that is relevant to what I need to know later	3.20	0.638
would have a professor who was not just an instructor, but more an explainer, entertainer and friend	3.22	0.753

## Developments in Business Simulation and Experiential Learning, Volume 33, 2006

**Table 3. Students' Behavioral Preferences in Learning modes - Rotated Component Matrix**

Learning Mode Attributes	Components						
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
would provide a relaxed atmosphere where discussion is encouraged	0.824						
would provide a workshop/seminar atmosphere so that we can exchange ideas & evaluate our own perspectives on the subject matter	0.748						
would provide a classroom atmosphere of exploring and debating new ideas	0.743						
would be where the professor doesn't tell me the answers; rather s/he shows me how to find the answers for my self		0.828					
would let me learn on my own because I hate being spoon-fed by professors/tutors		0.763					
would be where I have my own opinions and I think for myself		0.621					
would reward me with high grades for independent thought			0.830				
would reward me with good grades when I worked hard to learn me material			0.741				
would have a professor who was not just an instructor, but more an explainer, entertainer and friend			0.602				
would emphasize class discussion but I would expect the professor/tutor to tell us the right answer				0.702			
would be where I take effective notes on what is presented in class and reproduce that information on tests				0.681			
would be lectures since I am get the information I need to know most efficiently				0.656			
would be where I could listen intently to the professor/tutor and not to classmates and peers for answers to questions					0.778		
would have the focus on having the right answers rather than on discussing methods on how to solve problems					0.620		
include grading that is by a pre-arranged point system (for homework, tests, final) since I think that is most fair.						0.873	
would be where learning is a mutual experience where I contribute to the teaching and learning in class.						0.626	
would provide assignments with practical everyday applications							0.833
would be a 'free-flowing' class that does not follow a said outline							-0.605
Eigenvalue:	3.315	1.879	1.673	1.516	1.192	1.066	1.001
Factor mean	2.8457	2.4753	2.8981	2.4753	1.7731	2.513	2.1065
Cronbach's alpha	.728	.661	.618	.466	.354	.467	-.412
Remark: Exaction method = Principal Component Analysis Rotation = Varimax with Kaiser Normalization; 7 iterations KMO = .648 Total variance explained = 64.682%							

## Developments in Business Simulation and Experiential Learning, Volume 33, 2006

what is presented in class and reproduce that information on tests' and 'would be lectures since I am get the information I need to know most efficiently, (Eigenvalue = 1.516; mean score = 2.475; Cronbach-alpha = 0.466). This factor was renamed as 'Teaching Material and Answer'. Its mean score was the same as Factor 2. The responding students considered the provision of teaching materials and solutions to a problem to be fairly useful.

Factor 5 included items of 'would be where I could listen intently to the professor/tutor and not to classmates and peers for answers to questions' and 'would have the focus on having the right answers rather than on discussing methods on how to solve problems'. Its Eigenvalue is 1.192 with a factor mean score of 1.773 and a Cronbach-alpha of 0.354. We renamed the factor as 'Direct Instruction'. The mean score was the lowest, strongly indicating that the respondents had a negative attitude towards direct instruction given by the instructors. They preferred discussion with their peer students.

Factor 6 was also comprised of two items of 'include grading that is by a pre-arranged point system (for homework, tests, final) since I think that is most fair' and 'would be where learning is a mutual experience where I contribute to the teaching and learning in class' (Eigenvalue = 1.066; mean score = 2.513; Cronbach-alpha = 0.467). It was called 'Evaluation of Learning'. It had a third highest mean score. Students regarded proper evaluation to be important to their learning process.

Factor 7 was the last factor derived from the factor analysis and it also consisted of two items: 'would provide assignments with practical everyday applications' and 'would be a 'free-flowing' class that does not follow a said outline' (Eigenvalue = 1.001; mean score = 2.107; Cronbach-alpha = - 0.412). It was called 'Structure of Teaching'. It had a mean value just above 2.0, indicating that the attitude towards structured teaching method was rather neutral.

### CONCLUSION

Much of the research in the Chinese learners was based on the theoretical stance that has become known as the Student Approaches to Learning (SAL) paradigm (Biggs, 1987, 1993). It was argued that the Western misperceived the Chinese learner as rote learner. Marton, Dall'Alba and Tse (1996) suggested that Chinese students learn repetitively in the belief that memorisation can lead to understanding. It was found that Hong Kong students (Chinese students) tend to have good receptive skills, listening and reading, but they have poor expressive skills both in speaking and writing in English as a second language (Biggs & Wakins, 1996; Wakins & Biggs, 2001). In fact Chinese learners use repetition strategically more often than Westerners do in their attempts to understand their world. They aim to understand and therefore choosing to memorise would allow them to be more effective to achieve their goal. In this study, seven factors in student's

learning behaviour were recorded in this Hong Kong study and they were 'Learning Atmosphere', 'Learning Autonomy', 'Motivation and Reward', 'Material and Answer', 'Direct Instruction', and 'Structure of Teaching'. The findings of this paper shed some light on the subject matter on the mode of learning for Chinese students and suggest that Chinese students are not just rote learner and their learning behavior can be more than one type. As a matter of fact, the continuation of this preliminary study is to explore more in depth on the issues on these seven factors to fit in today's multimedia teaching and learning in the classroom setting in Hong Kong educational institution just as Townsend & Townsend opted for the benefits of adopting multimedia in teaching in 1992.

### REFERENCE

- Biggs, J.B. (1987) Student Approaches to Learning and Studying, Australian Council for Education Research.
- Biggs, J.B. (1993) "What do Inventories of Students' Learning Processes Really Measure? A Theoretical Review and Clarification", British Journal of Educational Psychology, Vol. 63, 3-19.
- Biggs, John B. & Watkins, D.A. (1996) The Chinese Learner in Retrospect, in (Ed.) Wakins, David A. & Biggs, J.B., The Chinese Learners: Cultural, Psychological and Contextual Influence, CERC & ACER, 269-285.
- Bruder, I. (1991) "Guide to Multimedia: How It Changes the Way We Teach and Learn?" Electronic Learning, September 22-26.
- Chang, J., Choi, K.F., Moon, K.L., Chan, P., & Chan, L.K. (2004) "Student Expectations of Classroom Teaching Practices in Developing and Presenting Course Information in Hong Kong." Developments in Business Simulation & Experiential Learning, Vol. 31, 233-241.
- Chang, J., Choi, K.F., Moon, K.L., Chan, P., Chan, L.K., and To, C.K.M., (2005) "Teaching Practices: A Cluster Analysis of Students in Hong Kong", Developments in Business Simulation and Experiential Learning, Vol. 32, pp. 373-380.
- Light, Greg & Cox, R. (2001) Learning and Teaching in Higher Education: The Reflective Professional, PCP Publishing.
- Marton, F., Dall'Alba, G. and Tse, L.K.(1996) Memorizing and Understand: The Keys to the Paradox?, in (Ed.) Wakins, David A. & Biggs, J.B., The Chinese Learners: Cultural, Psychological and Contextual Influence, CERC & ACER, 69-83.
- Ramarapu, N., Cites, T., & Overby, J. (1996) "Multimedia in the Year 2000: How Will It Affect Our Life?" Developments in Business Simulation & Experiential Learning, Vol. 23, 175-176.
- Snyder, S.J. & Vaughner, M.J. (1996) "Multimedia & Learning: Where is the connection?" Developments in Business Simulation & Experiential Learning, Vol. 23, 179-180.

## **Developments in Business Simulation and Experiential Learning, Volume 33, 2006**

- Snyder, S.J. & Vaugher, M.J. (1998) "Multimedia and Student Expectation." *Developments in Business Simulation & Experiential Learning*, Vol. 25, 179-186.
- Snyder, S.J. (1996) "Multimedia in the Workplace: Who is Really Using it and Where is it Headed?" *Developments in Business Simulation & Experiential Learning*, Vol. 23, 152-156.
- Townsend, Frank C. & Townsend, Catherine M., (1992), *Meeting Learning Needs through Multimedia: A Look at the Way Modern Technology Can Help Classroom Teachers Meet the Varied Instructional Needs of Students.*, Learning Style Inventory, ERIC, Resources in Education (RIE).
- Tokoro, M. and Steels, L. (Ed.) (2003) *The future of learning*, Ohmsha, IOS Press.
- Wakins, David A. & Biggs, J.B. (2001) *The Paradox of the Chinese Learners and Beyond*, in (Ed.) *Teaching the Chinese Learners: Psychological and Pedagogical Perspectives*, Comparative Education Research Centre, HKU, 3-23.