

University Faculty Members' Attitudes towards Student Centred Learning

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ABSTRACT

The Malaysian National Higher Education Strategic Plan launched in 2011 by the Ministry of Higher Education emphasised the student centred learning (SCL) approach for all institutions of higher education. In SCL, the focus of instruction is transferred from the teacher to the students who are expected to take greater responsibility for learning. The strategic plan also calls for a strengthening of higher education faculty members' capacity in implementing SCL in the learning environment. Based on the aforesaid reasons, it is important for lecturers to be competent in implementing SCL. At the same time, it is also important to ensure that they possess positive attitudes towards SCL. Affective characteristics should not be overlooked as there is evidence to suggest the link between attitude and behaviour. This study explores faculty members' attitudes towards SCL at a leading research university in Malaysia. The study also examined if gender and academic seniority had an impact on the SCL attitudes of lecturers. Descriptive results revealed that faculty members possessed positive attitudes towards SCL. Gender made a difference in attitudes towards SCL, with female faculty members favouring the SCL approach more than their male counterparts. Academic seniority, however, did not have a bearing on preference towards SCL.

Keywords: Student centred learning, faculty members, gender, academic seniority

INTRODUCTION

Education has been recognised as one of the key contributors to the economic growth of a country. Developed and developing nations alike are investing heavily in education to stay competitive in the globalised economy. Policy makers in many countries, including Malaysia, strive to lay a strong foundation for education to ensure that students are equipped with the appropriate knowledge and skills to compete in the job market. Apart from having the relevant paper qualifications, young graduates are now expected to be creative, independent and, innovative in the real world. They must also be able to communicate well and be a team player. In order to produce graduates with such sought-after attributes, the teaching approach in Malaysian higher institutions is gradually shifting from a teacher centred approach to a student centred one (Wong, Abu Bakar & Tang, 2006).

In a progressive step forward, the Malaysian Ministry of Higher Education launched the National Higher Education Strategic Plan (more popular known by its Malay acronym - PSPTN) in 2011 which emphasised the student centred learning (SCL) approach for all institutions of higher education (Ministry of Higher Education, 2011). With SCL, the focus of instruction is transferred from the teacher to the students who are encouraged to take on more active roles and assume greater responsibility for their own learning. In tandem with this, the strategic plan also calls for the need to strengthen the higher education faculty members' capacity in implementing SCL.

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Universiti Putra Malaysia (UPM), one of the top research universities in Malaysia, had in fact embarked on its own initiative since 2004 to train all faculty members to use the SCL approach (Abu Bakar, Wong, Mohd Ayub & Lope Pihie, 2013). The university's Centre for Academic Development (CADE) has been providing training to realise strategies similar to those outlined in the PSPTN.

Given the importance of lecturers' competency in implementing SCL, it is also important to ensure that they possess positive attitudes towards this approach. Affective characteristics should not be ignored as there is evidence to suggest a link between attitude and behaviour. Indeed, it is believed that one's attitude can determine one's public behaviour (Myers, 2005).

Theoretical Framework

Aiken (1980, p. 2) defines attitudes as "learned predispositions to respond positively or negatively to certain objects, situations, concepts, or persons. As such, they are associated with cognitive (beliefs or knowledge), affective (emotional, motivational) and performance (behaviour or action tendencies) components". More recently, Fishbein and Ajzen (2010, p. 76) define attitude as "a latent disposition or tendency to respond with some degree of favourableness or unfavourableness to a psychological object". Based on these definitions, SCL attitude constitutes three components, *viz.* affect, cognitive, and behaviour. Affect is operationalised in this study as the faculty members' positive or negative feelings towards SCL for teaching and learning. Cognition refers to the faculty members' beliefs or thoughts regarding SCL for teaching and learning while behaviour relates to how they respond to the SCL approach.

Affective characteristics have been given due recognition in both the education and corporate settings (McCoach, Gable & Madura, 2013). According to McCoach et al. (2013) such characteristics play a pertinent role in education and corporate research because of their relationship with student and worker performance. Attitude, as a powerful affective construct, has been researched for many decades because of its ability to influence behaviour (Fishbein & Ajzen, 1980). According to the Theory of Planned Behaviour (Ajzen, 1991), behaviour is influenced by one's intention behind an action, which in turn is jointly influenced by attitude, subjective norms, and perceived behavioural control. Myers (2005, p.110) aptly puts it that "if we want to alter the way people act, we need to change their hearts and minds".

Related Research

SCL is not a new approach, but has in fact been advocated by the teaching profession for the past 25 years (Avellino, 2009). According to the European Students' Union (2010), SCL does not have one universally-agreed definition despite its long history. However, there has been general consensus that students are the main focus in the SCL environment where they learn actively while teachers remain as guides to achieve the learning goals.

Attention on SCL has not diminished over the years as many past and recent studies have shown that this approach can enhance students' learning experience at the tertiary level. A study by Wong et al. (2006) revealed that the SCL approach used in computer laboratories created opportunities for students to work and collaborate. Students were able to complete their assignments on their own or with their friends' help in practical sessions. The authors assumed that new knowledge and skills were built based on the current knowledge and skills that the students possessed prior to the course.

Armbruster, Patel, Johnson and Weiss (2009) provided some evidence that an SCL environment had a positive impact on both student learning and student attitudes in a biology course. The researchers restructured an undergraduate biology course by incorporating interactive learning and student-centered pedagogy into the instructional design of the course over the course of one semester. The findings suggested that re-organising the course to include elements of SCL had led to students being more engaged and satisfied during teaching-learning. This in turn resulted in better academic performance. In a more recent study, Smith, Wood, Krauter and Knight (2011) reported that the combination of student engagement through peer discussion with instructor feedback was effective for in-class performance. Their findings showed that average student performance improved significantly from this combination approach, implying that peer discussion and instructor explanation played a symbiotic role in helping students academically.

Although the literature clearly shows that SCL has a positive impact on students' attitudes toward learning and academic performance, Al-Hadad (2013) points out that lecturers are not implementing SCL in their classrooms as much as they should. Even more worrying, he feels that lecturers are not able to differentiate between the teaching approach and the student learning approach. Abu Bakar, Wong, Mohd Ayub and Lope Pihie (2013) also raised their concern when their findings in a study suggested that faculty members seldom used the SCL approaches despite having undergone SCL training, and despite perceiving themselves being competent in six of

the 27 SCL methods surveyed. The six approaches included the Student Class Presentation, Group Discussion, Group Project, Interactive Lectures, Tutorials and Individual Project. Thus, it seems that lecturers are still playing the dominant role in the classrooms. On the other hand, Mohd Yusoff, Abdul Karim, Othman, Mohin and Abdull Rahman (2013) reported more promising results in a large scale study conducted among faculty members of a university. Faculty members did use the SCL approach that involved computer assisted learning more frequently as compared to other approaches such as Problem Based Learning, collaborative learning, case based learning or inquiry based learning. It was found that student-student collaboration occurred more frequently than instructor-student collaboration (Mohd Yusoff et al., 2013).

Studies have also shown that the instructor's gender does have an impact on the classroom instructional approach. Lammers and Murphy (2002) reported that male faculty members were more inclined to lecture in class than to encourage active participation among students. Zhou and Xu (2007) agree that female faculty members are more likely to apply SCL to instruction than male faculty members. Their study found that "females more frequently used strategies such as questioning students' ideas before introducing new concepts, encouraging students to share ideas with neighbours in the classroom, engaging students in small group discussions, and asking students to give presentations" (Zhou & Xu, 2007; p.150). These findings were corroborated by Soloman (2011) who found female faculty members to be more inclined to use multiple ways of interacting with students and offer their feedback and support as compared to their male counterparts. The author also opined that female faculty members "encouraged a democratic construction of knowledge through engaging students in discourse about course structure or content" (p. 194). Wood and Rhodes (1992) observe that from a sociological viewpoint, females are more expressive in nature and therefore have higher tendency to emphasise social-orientated activities. On the other hand, males tend to focus more on task-oriented activities. These findings and views, when taken as a whole, suggest that female faculty members have a greater tendency to implement SCL approaches than their male counterparts.

Apart from gender, there is also evidence to show that academic seniority could affect the teaching approach of faculty members. Lindholm and Astin (2008) observe that older lecturers, as reflected by academic rank, are less likely to use a student-centered pedagogy, compared to their more junior colleagues. Senior faculty members were found to be less inclined to encourage students to learn course materials than those in the lower academic rank (BrckaLorenz, 2008). BrckaLorenz (2008) also points out that faculty members with higher academic rank are less likely to communicate high expectations to their students and that they exhibit less likelihood to appreciate diverse talents and learning paths than their more junior colleagues.

It could therefore be surmised that the two aforesaid variables, gender and academic seniority, could have a bearing on the way faculty members teach in their classroom. It is for this reason that the present study explores the link between SCL and faculty members' gender and academic rank.

Given that the majority of lecturers have been exposed to the SCL approach at Universiti Putra Malaysia, there is a strong likelihood that they would have formed personal opinions toward SCL in teaching and learning. Based on the assumption that attitudes can help understand and predict behaviour (Ajzen & Fishbein, 2005), the attitudes of faculty members towards SCL could be expected to predict the extent to which they implement SCL in the learning environment.

Objectives of the Study

The main purpose of this study was to explore faculty members' attitudes towards student centred learning for teaching and learning, given the university's emphasis on this approach to produce creative and innovative graduates for the workplace. The objectives of the study were as follows:

1. What is the overall profile of faculty members' SCL attitudes?
2. Does gender have an effect on the faculty members' SCL attitudes?
3. Does seniority have an effect on the faculty members' SCL attitudes?

METHODS

This quantitative-descriptive survey research was conducted among 1550 UPM faculty members from 16 faculties. Data were collected online from 23 September 2011 till 30 October 2011. Although the questionnaires were completed by 680 faculty members (43.87%), data from only 623 faculty members (40.20%) were usable as the rest contained incomplete responses.

Instrumentation

Since we found no standardised instrument that would suit our needs, we developed our own instrument. It was an online survey form where all faculty members were given unique usernames and passwords to access. Nine items were developed and measured against a five point Likert-type scale ranging from strongly disagree to strongly agree. All except three items were in the positive form. Three items each corresponded to the affective, cognitive and behavioural domains as shown in Table 1. The instrument was content validated by three experts; it was pilot-tested with 30 faculty members who did not participate in the actual study. The three validators had expertise in pedagogy with teaching experience of more than 10 years. All three were also familiar with the SCL approach, and had experience in its implementation in their teaching-learning environment. The reliability of the attitude score was ascertained by Cronbach's alpha for the actual study was .84.

Faculty Members' Backgrounds

There were 326 (52.3%) male and 297 (47.7%) female faculty members who participated in this study. Their teaching experience ranged between 1 and 49 years ($M=14.20$, $SD=10.40$). The faculty members comprised 98 (15.7%) professors, 190 (30.5%) associate professors and 335 (53.8%) lecturers/senior lecturers.

Results

The results of the study were based purely on the quantitative data obtained through the online survey using Likert-style items. Descriptive statistics (means and standard deviations) were used to report the data related to the overall profile of faculty members' SCL attitudes. An independent t-test was used to ascertain the difference between gender while MANOVA was carried out to determine the differences between males and females in terms of the three domains of attitudes (affective, cognitive, and behavioural). ANOVA was used to determine the difference among academic seniority while a second MANOVA was conducted to determine the differences among the academic ranks in terms of the aforesaid domains. Preliminary assumption testing for MANOVA was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices and multicollinearity, with no serious violations noted.

Attitudes towards SCL

Table 1 presents the faculty members' responses in regard to their SCL attitudes as measured by nine questionnaire items. All the item scores, except for one, were above the mid-point of the scale (3.00), suggesting that the faculty members were generally positive towards SCL in the teaching-learning environment.

In the case of the affective domain, the high mean scores were indicative that faculty members had a positive feeling towards the use of SCL. They liked and enjoyed using the SCL approach for teaching-learning. They also found it easy to implement in the classrooms. The high mean scores for the knowledge domain suggested that they believed the SCL approach was beneficial to their students and implementing it was worth their time in the classroom. Within the behavioural domain, the high mean scores implied that the faculty members implemented the SCL approach based on their own volition. They disagreed that the SCL activities slowed their teaching-learning in the classrooms. The item which had the lowest score ($M=2.47$, $SD= 1.05$) suggested that faculty members agreed that more time was needed for preparation in an SCL environment.

When the analysis was split according to gender, the results in Table 1 showed that female academicians scored better than male academicians. None of the mean scores for males were above 4.0 while the females scored 4.0 and above for several items. In other words, females appeared to be more favourable towards SCL than males. Both genders scored the lowest for the item "I need to spend more time preparing SCL activities". However, the difference between all scores was small and confirmation of their significance would require quantitative analysis.

The analysis was also split according to academic seniority as shown in Table 1. The differences in mean scores of academic staff varying in seniority were small.

TABLE 1
Items for Attitudes towards SCL According to Gender and Academic Seniority

	Gender				Academic Seniority						Total	
	Males		Females		Professor		Associate Professor		Senior Lecturer/ Lecturer		M	SD
	M	SD	M	SD	M	SD	M	SD	M	SD		
Using the SCL approach in class is a waste of time ^{*C}	3.94	0.92	4.16	0.79	3.96	0.93	3.96	0.90	4.11	0.83	4.04	0.87
I like using the SCL approach in class ^A	4.04	0.67	4.13	0.63	4.06	0.72	4.03	0.66	4.12	0.63	4.08	0.66
I use the SCL approach in class even without anyone telling me to do so ^B	3.91	0.78	4.07	0.72	4.01	0.71	3.95	0.77	4.00	0.76	3.99	0.75
I enjoy using the SCL approach in class ^A	3.96	0.70	4.12	0.65	4.08	0.64	3.98	0.73	4.06	0.66	4.04	0.68
I find it easy to use the SCL approach in class ^A	3.76	0.79	3.82	0.86	3.92	0.76	3.71	0.88	3.81	0.81	3.79	0.82
The SCL approach is suitable to be implemented in class ^C	3.88	0.73	3.98	0.73	3.95	0.75	3.86	0.77	3.96	0.70	3.92	0.73
I cannot finish my syllabus when implementing SCL activities ^{*B}	3.47	0.99	3.58	0.98	3.46	0.99	3.54	0.96	3.53	1.00	3.52	0.99
I need to spend more time preparing SCL activities ^{*B}	2.48	1.01	2.41	1.07	2.60	1.07	2.35	0.99	2.46	1.06	2.45	1.04
The SCL approach allows students to learn more in-depth ^C	3.99	0.80	4.12	0.81	4.01	0.84	3.99	0.83	4.10	0.78	4.05	0.81

*negative items; C-cognitive; A-affective; B-behavioural

Gender Differences in SCL Attitudes

Table 2 shows that female faculty members scored higher than male faculty members for SCL attitudes. The independent t-test results revealed that there was a significant difference in the mean scores for males (M=33.42, SD=4.96) and females [M=34.40, SD=4.81 ;t(621)= -2.49, p= .013] for the overall SCL attitudes. Nevertheless, the mean differences were small (eta squared= .009). Further analyses were carried out to ascertain if there were differences between male and female faculty members in terms of the three domains, *viz.* the affective, cognitive, and behavioural domains. The MANOVA test results revealed that there was a significant difference between male and female faculty members on the combined dependent variables: F(3, 619)= 2.81, P= .039; Wilk's Lambda=0.987, partial eta squared=0.01. When the results of the dependent variables were considered separately, the mean scores for for all three domains reached statistical significance using the Bonferroni adjusted alpha level of .017. The domains were affective [F(1,621)= 4.31, P= .038, partial eta squared= 0.01], cognitive [F(1,621)= 8.40, P= .004, partial eta squared= .013] and behavioural [F(1,621)= 2.00, P= .158, partial eta squared= .003]. An inspection of the mean scores for each domain in Table 2 indicated that females scored higher than males. This suggests that female faculty members appeared to have more positive feelings and perceptions towards SCL attitudes when compared with males for all the three domains. Female academic staff also showed more favourable reactions toward SCL than male faculty members.

TABLE 2
Descriptive Statistics for Each Domain According to Gender

Dependent variables	Males		Females	
	Mean	S.D.	Mean	S.D.
Affective	11.76	1.88	12.08	1.89
Cognitive	11.80	1.96	12.25	1.89
Behavioural	9.85	1.94	10.07	1.84
Attitudes	33.42	4.96	34.40	4.81

Academic Rank Differences in SCL Attitudes

Although the mean scores differed among the academic ranks (professors, associate professors and senior lecturer/lecturers) as shown in Table 3, the ANOVA showed that there was no significant differences at the $p < .05$ level in the overall SCL attitudes scores: $F(2,260)=1.53$, $p = .217$. This indicated that academic seniority did not have an effect on SCL attitudes.

Another MANOVA was carried out to determine if differences existed among different faculty members ranks in terms of the three domains - affective, cognitive, and behavioural domains. The MANOVA test results revealed that the differences among the three different ranks were not significant on the combined dependent variables: $F(2, 260)= 1.42$, $P= .204$; Wilk's Lambda=0.99, partial eta squared=0.07. Hence, academic rank had no bearing on faculty members' feelings, perceptions, and reactions towards SCL.

TABLE 3
Descriptive Statistics for Each Domain According to Academic Rank

Dependent variables	Professor		Associate Professor		Lecturer/Senior Lecturer	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Affective	12.06	1.83	11.71	2.00	11.99	1.84
Cognitive	11.92	2.15	11.81	1.94	12.16	1.87
Behavioural	10.07	1.94	9.85	1.82	9.98	1.92
Attitudes	34.05	5.14	33.36	4.98	34.13	4.79

DISCUSSION

Several findings have emerged from this baseline study. First and foremost, the findings of this study showed that faculty members in UPM had positive attitudes towards SCL. It is reasonable to believe that their positive attitudes were specifically towards the six types of approaches (Student Class Presentation, Group Discussion, Group Project, Interactive Lectures, Tutorials and Individual Project) that they were reported to be competent in (Abu Bakar et al., 2013). The relatively high means for all three dimensions, *viz.* affective, cognitive, and behavioural, were an indication that faculty members were optimistic about SCL (affective) and held favourable perceptions about this approach (cognitive). It could also be assumed that they exhibited intention to implement SCL in their classrooms (behavioural intention). It is encouraging that faculty members indicated that they used the SCL approach without being coerced. This showed their willingness to embrace this approach despite needing more time to prepare the SCL activities. It is, therefore, expected that they would use the SCL approach to a greater extent given the link that exists between one's attitude and behaviour (Fishbein & Ajzen, 1980; Myers, 2005). This finding bodes well for the university as it indicates that the various training sessions conducted by CADe had been beneficial in shaping their attitudes towards SCL in a positive manner.

The findings of this study suggested that faculty members saw the benefits of implementing SCL. The benefits were two pronged—they could see the personal *benefit* for *themselves* and *their* students. As instructors, faculty members perceived SCL to be manageable as the approach was easy to implement in their classrooms. At the same time, they perceived that students learned more in the SCL environment.

The present findings supported the notion that female faculty members were more inclined to use the SCL approach than male faculty members did (Lammers & Murphy, 2002; Zhou & Xu, 2007; Soloman, 2011). Perhaps this is to be expected from the sociological point of view, that female faculty members tend to show more favourable SCL feelings (affective) and responses (behaviour) because they possess the innate nature of being more expressive (Soloman, 2011). Such nature could therefore, influence their preference for social-oriented activities in their classrooms.

Findings in the current investigation contradicted those of past studies which suggested that academic staff seniority could affect faculty members' teaching approach preference (Lindholm & Astin, 2008; BrckaLorenz, 2008). The present findings indicated that holding a professorial position had no bearing on one's preference to apply SCL in the classrooms. Given the university's policy where teaching responsibilities are seen to be equally emphasised as conducting research, it is possible that both junior and senior faculty members viewed the adoption of the SCL approach seriously when conducting their lessons. Their ready adoption of SCL might also be attributed to the university's policy of giving recognition to faculty members for their efforts in implementing SCL through their annual appraisal. It is, therefore, reasonable to expect faculty members to take their teaching responsibilities seriously despite teaching in a research university.

CONCLUSION

Faculty staff members of Universiti Putra Malaysia had favourable attitudes towards SCL and used the SCL approach regardless of academic seniority. This is reassuring because all academic staff members play crucial roles as instructors who provide an environment conducive to learning. It is imperative for them to possess positive attitudes towards SCL as past studies have shown attitudes to be positively linked to usage. Accordingly, there is a high likelihood for faculty members with positive SCL attitudes to apply the SCL approach. This would have a positive effect on students' learning performance and experience in the classroom. In addition, the fact that gender is an important variable should be considered when plans and initiatives are taken to shape faculty members' attitudes towards SCL.

Implications of the Study

Several implications related to the SCL environment at the higher education level may be drawn from this study. It is important for the university to recognise the need to provide adequate and continuous in-service pedagogical training to all faculty members to not only sustain, but to enhance their positive attitudes towards SCL in the teaching-learning environment. Faculty members must also be exposed to environments that are conducive for the use of the SCL approach. This in turn would allow them to acquire more confidence and competency in various pedagogical approaches within the scope of SCL.

Gender makes a difference in the faculty members' attitudes towards SCL. Female faculty members tend to favour the SCL approach more than their male counterparts. Additional pedagogical support could be given to male faculty members to shift their preference in a more positive manner towards SCL. Other measures such as providing more SCL training sessions would also encourage male faculty members to include more social-oriented activities in their teaching.

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