

Students' and Lecturers' Perception Towards Student-Centred Learning Method: The 4-Pit Stop 6-Motion Technique

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Abstract: Prior research on culture suggests that people are culturally heterogeneous. The culture heterogeneity is based on the varying region, religion, gender, generation and class. The extant literature has established four cultural dimensions which differentiate national culture values into power distance, masculinity versus femininity, individualism versus collectivism, and uncertainty avoidance². From the perspective of the Malaysian races, the first two value dimensions i.e. power distance and masculinity versus femininity and define Malay cultural values as feminine (such as discretion and modesty) and high power distance. These effectively create unique personality traits among the Malay students in the educational setting which are shyness and introversion, as well as relatively wide social gap between teachers and learners. Accordingly, this necessitates the conventional teaching method to be less effective for Malay learners as learning styles has been identified in the literature to be culturally driven. Against this theoretical conjecture, we develop an alternative, non-conventional teaching method termed the "4-pitstop and 6-motion technique" (4P6M) which aims at removing students' shyness by creating a relaxed learning environment whilst eliminating the power distance by letting students to teach their friends under the teacher's oversight. Applying this revolutionized teaching and learning techniques to a relatively new and difficult course of Corporate Financial Strategy and Financial Strategy subjects offered at the Faculty of Accountancy, Universiti Teknologi MARA,

for postgraduate students, this novice teaching technique is expected to enhance the learning environment and hence, academic outcome in terms of improved students' performance. We interviewed 28 students and two lecturers on their perception on the effectiveness of the 4P6M technique.

Keywords: *postgraduate students, student-centred learning, Malay students, non-conventional teaching*

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2 In masculine societies, the traditional masculine social values permeate the whole society (e.g. the importance of showing off, of performing, of achieving something visible). In more feminine societies, the dominant values-for both men and women-are those more traditionally associated with the feminine role. Individualism versus collectivism relates to the relation between an individual and his or her fellow individuals (i.e. very loose or very tight). For uncertainty avoidance, the fundamental issue is how society deals with the fact that time runs only one way; that avoidance is, we are all caught in the reality of past, present and future, and we have to live with uncertainty because the future is unknown and always will be. Finally, power distance relates to how society deals with the fact that people are unequal.

INTRODUCTION

Motivated by the different ethnicities in Malaysia, it is the objective of this study to investigate the degree to which the Malay ethnic and cultural values have effects on teaching and learning. Specifically, a unique teaching method is developed in this study, known as “4 Pit Stops 6 Motions”. This teaching method is introduced to assist students to gain a better understanding of the Finance subject. In applying the student-centred learning framework, the “4 Pit Stops 6 Motions” method essentially promote students to assume increased ownership, participate in higher-order thinking activities, in addition to articulating and presenting an artefact. More specifically, the “4 Pit Stops 6 Motions” technique involves a few stages of preparation before students can present a topic in class. Initially, students will be divided into four small groups. Within each group, students should be able to explain the topic assigned to them within 15 minutes. To innovate and implement an alternative teaching/learning technique for theory-based topics that

overcomes the barrier to the full extent of knowledge transfer between teachers and learners attributable to Asian students' personality traits and learning culture.

STUDENTS-CENTRED LEARNING

Student-centred learning (SCL) is an approach by which students create their own learning opportunities and rebuild knowledge in a dynamic way within an open-ended learning environment (Hannafin et al. 2014). This would mean that students undertake high responsibility and autonomy in their learning process (Lee & Hannafin, 2016). The learning process in the SCL environment requires that students are completely supported from many different angles including cognitive, social and motivational aspects. Leaving students to learn alone independently without any external guidance may be ineffective. Rather, students need to be supported properly throughout the learning process. This would involve support from the very beginning of the process including owning the project, researching the project up to the stage of sharing the outcomes of the project (Lee & Hannafin, 2016). McCombs and Whisler (1997) further contend that student-centred approaches focused in supporting unique individuality of varying needs, interests, perspectives, capacities and background.

An optimal learning environment is suggested to be the interactive one. Creating an interactive learning session is not an easy task. This task is even more challenging for Asian lecturers for two main reasons i.e., (1) discretionary and modesty (Hofstede, 1984) are personality traits commonly ascribed to Asian students; and (2) anecdotal evidence suggests a relatively high power distance between lecturers and learners in the Asian learning culture.

We innovate a student-centred learning technique called "4 Pit Stops 6 Motions". This technique has multiple advantages. The teacher can easily and quickly assess if students have really mastered the material (and plan to dedicate more time to it, if necessary during the preparation process or during the presentation day). By applying this method, the teacher can understand the subject matter more by engaging the students' participations- this is true for new teachers. This method involves the process of encouraging students

to read and understand the materials—often students do not actually learn the material until asked to make use of it in assessments. This method further increases the level of students’ mastery of the topics. Furthermore, it enhances students’ confidence and communication skills. Finally, the very nature way of learning drives interactivity and brings several benefits. Students are revived from their passivity of merely listening to a traditional way of lecturing and instead become attentive and engaged, two prerequisites for effective learning (see e.g., Angelo & Cross, 1993; Alison & Marwitz, 2001; Mel, 1996; Arthur, 2005 and Ryan, 2005).

This method is focusing on student action. This method deepens teachers’ learning by not having a teacher/ teacher-centred lessons, but by deepening students’ understanding through explaining the subject matter by creating or finding ways to show their understanding and what they actually can do to make their friends understand better. The key in quality station rotation or pit stops is building student metacognition³ through goal-setting, as well as teacher engaging with students around their goals and encouraging deeper learning in small groups (see e.g., Livingston, 2003 and Kim, 2014).

This method is perceived to encourage teachers to spend more of their time on the higher order levels of thinking in Bloom’s Taxonomy rather than focusing on communicating or delivering the subject matter. It may be, for instance, that students are practicing and gaining fluency in communication and presentation skills, while they are memorizing their knowledge.

MECHANICS OF THE 4-PITSTOP AND 6-MOTION TECHNIQUE

There are two (2) phases in implementing this method, as indicated in Table 1 below. In phase 1, students are divided into 4 different groups and each group will be allocated with a different sub- topic. Students will do further reading, group discussion and preparation of short notes based on the sub-topic given. The completed notes will be then submitted to the teacher for initial review in order to ensure that the contents covered are in line with the syllabus. Following this, students will prepare the final notes which will be distributed to all students in class. There are 2 types of notes, i.e. (i) handouts – generally distributed, and (ii) Mahjong paper (34” x 34”) – pasted on the

wall/4-pitstops. In phase 2, the real presentation takes place. The teacher will monitor students' presentation and set the timing. Each group will be the teacher at their own pit stop and become the learners at the other pit stops. The novelty of this technique lies in this latest step; (i) it removes the students' shyness by creating a relaxed learning environment, and (ii) eliminates the power distance by letting students to teach their friends under teacher's oversight. Each group will repeat the presentation 3 times to 3 different groups of learners. In total, there will be 6 movements represented by the 6 motions as summarized in Figure 1. Finally, in the last 10 minutes of the session, the teacher will do the wrap up of the topic. The summary of the stages is tabulated in Table 1.

RESEARCH METHODOLOGY

We conduct interviews among masters by coursework at the Faculty of Accountancy, Universiti Teknologi MARA, Malaysia. We interviewed 28 students from two Finance classes i.e., Corporate Financial Strategy and Financial Strategy where the 4P6M technique has been implemented in both classes. We analysed the findings from the interview sessions and discussed few similar themes from the transcribed interview sessions. We apply qualitative method in analysing the interviews and observations. A qualitative approach is used to analyse the interviews with the students and observations from the teaching lecturer. The lecturers interpreted the active learning in their classes based on their understanding of the 4P6M method.

³ "Metacognition" is often simply defined as "thinking about thinking." According to Livingston (2003), there are several terms currently used to describe the same basic phenomenon (e.g., self-regulation, executive control), or an aspect of that phenomenon (e.g., meta-memory), and these terms are often used interchangeably in the literature.

Table 1
The different phases of the 4-pit stop 6-motions teaching approach

DESCRIPTION	
PHASE 1	
<i>Stage 1</i>	Group Formation (4 groups – 4-pit stop)
<i>Stage 2</i>	Sub-topic Allocation
<i>Stage 3</i>	Reading and preparation of short notes
<i>Stage 4</i>	Submission for initial review
<i>Stage 5</i>	Correction and preparation of final notes for presentation
PHASE 2	
	<ul style="list-style-type: none"> • Presentation of maximum to 10-15 minutes in a small group. There will be 2 concurrent presentation sessions. • Lecturer monitors presentation and timing • Each group repeat the same 6 times • Lecturer wraps up the whole topic in the last 10 minutes of the class

Figure 1 below shows the mechanics of the 4-pit stop and 6 motions teaching technique.

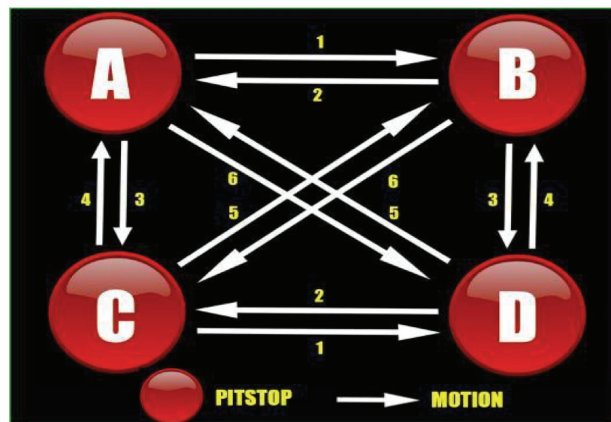


Figure 1: Mechanics of the 4-pit stop and 6-motion technique

STUDENTS' PERCEPTION TOWARDS 4-PITSTOP AND 6-MOTION TECHNIQUE

Students find it to be more effective as it involves face-to-face teaching and learning process. It is a two-way communication between the students and the lecturer. Students find it to be more effective as they can generate more ideas and solutions to any issues. The 4P6M is a method that allows students to engage actively in teaching and learning processes. As students need to explain the same concept to other groups three times, they become more confident and can see that the way they explain to other groups become much clearer and better after each pit stop. Furthermore, it is effective since it requires students to share and have discussions between small groups that are more likely to have the same level of thinking. This actually derived from the absent of the power distance between students. They tend to explain the topic based on their capability to understand the topic effectively.

Based on the interviews conducted, it is clear that this method is not only fun and interactive but also enhanced students' confidence. As one participant quoted as saying as follows:

I am more focused and it is much more comfortable to ask questions to the presenters. It is much more effective for me as compared to the normal presentation where all groups present in front of the class.

There are four styles of learners based on VARK (visual, aural/auditory, read/write, and kinesthetic) approach for assessing preferred learning styles among students (Fleming, 2001). It may be effective for some as there are many types of learners. It may help especially those who are visual or kinesthetic (since they are the ones preparing for it). By applying this method in class, students will try their very best to understand their parts before they presenting to other students. The technique is very effective since students need to master the assigned topic before they can present to others.

One participant claimed that it is great to have this approach from time to time as it is different from the typical 'sit and listen' class approach.

I'd be looking forward to have this experience and would treat it as a 'small project' during that semester. But I'm not sure how effective this method if it is done every week. At present, it is still not the norm

here in Malaysia (my personal opinion). It may work well in future hopefully if this is done earlier starting from kinde.

Students also find it easy to understand certain topics. For certain topics, students claim that they still require explanation from the lecturer to confirm the facts and knowledge. The only drawback is that, if students do not really understand their parts, they might explain the wrong concept to other students.

4.1 Comparison between 4P6M and the traditional method of teaching

Students perceived the method of 4P6M as more enjoyable and they can pay attention in the discussion. There will be no more “Syok Sendiri” presentation and no more sleeping audiences. They perceived that the method is different in the way the class is being conducted and the way students can exchange ideas. One participant mentioned that this 4P6M method allows two-way communication between the presenters and listeners. Everyone is free to ask questions and the class is being conducted informally that students feel free to ask questions. Furthermore, everyone is able to present their own parts and has the opportunity to participate in the discussion. One respondent responded as follows:

You are free and confident to give your opinion or idea plus it helps on your communication skills a lot.

Respondents claimed that this method is interesting as compared to the traditional presentation which respondents are easily get bored and feel it is too formal. As being mentioned in one interviewed as follows:

Interesting! Traditional presentation is boring and too formal, we should chill out.

LECTURERS' PERCEPTION TOWARDS 4-PITSTOP AND 6-MOTION TECHNIQUE

From the lecturers' observation, the class discussions become more meaningful as students are free to ask questions and participate in the discussion and can stop the presenters at any point of time when they do not understand certain explanation. The stress and the burden now become lesser as the

lecturer can allocate more time in enhancing knowledge while listening to students' presentations. Lecturers can get ideas by listening and involved in discussion at any point. Furthermore, lecturers can highlight any important points and corrects students at any points during the presentations. This method is suitable for lecturers that can be considered as juniors as they can get more ideas by listening to the various ways of students' explanation to the same concept of their teaching.

CONCLUSION

The traditional teaching method of teacher-centric has its own limitations, which mainly lacks bilateral interactions between teachers and students and creates low student interest in learning sessions. The 4-pit stops 6-motions teaching approach is an innovative way that consistent with the definition by Hofstede as having a culture of high feminism and high power distance that could effectively deal with the Malay students in general, as shy and introverted. This contemporary teaching approach helps not only that students enjoy the learning process but it helps to improve students' understanding and communication skills effectively, whereby overcome the drawback of the traditional teaching method. This technique is considered "fun and enjoyable", yet it is more effective than traditional lectures that enabling student learning process. The 4-pit stops 6-motions teaching method is an intellectually stimulating, lively and perceptive learning sessions. There will no more boring lecture and sleepy heads. Everyone stands and moves!

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REFERENCES

- Alison Morrison-Shetlar & Mary Marwitz (2001), *Teaching Creatively: Ideas in Action*. Outernet: Eden Prairie.
- Angelo, T. A., and KP Cross. 1993. *Classroom assessment techniques: A handbook for college teachers*. San Francisco: JosseyBass.
- Fleming, N. D. (2001). *Teaching and learning styles: VARK strategies*. IGI global.
- Hannafin, M. J., Hill, J. R., Land, S. M., & Lee, E. (2014). Student-centered, open learning environments: Research, theory, and practice. In *Handbook of research on educational communications and technology* (pp. 641-651). Springer, New York, NY.
- Thomas A. Angelo & Patricia Cross (1993), *Classroom Assessment Techniques*. 2nd Edition. Jossey- Bass: San Francisco.
- Lee, E., & Hannafin, M. J. (2016). A design framework for enhancing engagement in student-centered learning: Own it, learn it, and share it. *Educational technology research and development*, 64(4), 707-734.
- Livingston, J. A. (2003). *Metacognition: An Overview*.
- Silberman, Mel. (1996). *Active Learning: 101 Strategies to Teach Any Subject*. Allyn and Bacon: Boston.
- VanGundy, Arthur (2005). *101 Activities for Teaching Creativity and Problem Solving*. Pfeiffer: San Francisco.

- Watkins, Ryan (2005). *75 e-Learning Activities: Making Online Learning Interactive*. San Francisco: Pfeiffer.
- Schmeck, R. R. (1988). An introduction to strategies and styles of learning. In *Learning strategies and learning styles* (pp. 3-19). Springer US.
- Kim, Anthony. (2014). *Rotation Models Work for Any Classroom*.
- Hofstede, G. (1984). The cultural relativity of the quality of life concept. *Academy of Management Review*, 9(3), 389-398.
- Whisler, B. L. M. J. S. (1997). *The learner-centered classroom and school*. San Francisco: Jossey Bass Publishers.