A CASE STUDY OF BLOCK MODE LEARNING EXPERIENCE FOR ACCOUNTING FOR DECISION MAKING

Moy Tow-Yoon

Fong Yen-Foon

Victoria University Undergraduate Programme at Sunway College

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PURPOSE OF THE STUDY

To meet the rapid changes in the traditional industries and workforces, the Victoria University, Melbourne, introduced a revolutionary approach to learning and teaching, called the 'Block Mode' approach in 2018. By 2022, the Block Mode approach was implemented across all the vocational and higher educational courses. Victoria University has published strong statistical tracking evidence for the success of Block Mode since the new model was introduced (The VU Way: Engaged Learning in Block Mode 2022). Positive research findings are also reported by academic staff teaching the undergraduates in Victoria University using the Block Mode approach (Klein et al. 2019; McCluskey et al. 2020). In tandem with the successful implementation of Block Mode learning in Melbourne and the development of the education landscape in Malaysia, the management in Sunway College at Kuala Lumpur adopted the Block Mode approach with its new intake in February 2022.

Eight first year subjects were taught using the Block Mode approach from February to November 2022 in Sunway College, Kuala Lumpur. BAO1101 Accounting for Decision Making was one of the eight subjects involved in this transformational journey. In order to understand the students' view on the effectiveness of the Block Mode approach in engaging them to learn, and hence how satisfied the students were, we conducted a study with three cohorts of Accounting for Decision Making students from May to November 2022 to obtain their feedback.

Each Block was conducted over four weeks, 3 days in a week, 3 hours of workshop in a day. Various assessments were carried out during the four weeks as detailed below:

• Online assessment	10%	Completed after Workshop 3
• Online assessment	10%	Completed after Workshop 6
• Presentation	5%	Scheduled from Workshop 2-10
• Assignment	25%	Due in Workshop 9
• Final Test	30%	Completed in Workshop 11
• Reflective Journal	20%	Completed in Workshop 11

RESEARCH METHOD

The study was conducted throughout 2022, where responses from the 3 Blocks were collected, namely Sem 1, Block 3 (S1B3), Sem 2, Block 1 (S2B1) and Sem 2 Block 4 (S2B4). The mode of study of these three Blocks was hybrid, where students attended two physical class and one online class in a week. Online survey administered using the Google Form was used. The students were asked to complete the online questionnaire at the last day of class in Week 4. The names and personal details of the participants were not asked to encourage truthful and honest responses.

Details of the number of students enrolled and respondents to the surveys are as below:

	No. of students enrolled	No of students participated
Sem 1, Block 3 (S1B3)	30	22
Sem 2, Block 1 (S2B1)	28	21
Sem 2, Block 4 (S2B4)	29	22
TOTAL	**87**	**65**

The overall response rate was 75%

Development of Questionnaire

Our focus was to explore the type and level of learner engagement as participants of Block Mode teaching. Learner engagement is defined as the behavioral, cognitive, emotional and social connections that learners make with the course content, the instructor and / or other learners (Deng, Benckendorff & Gannaway 2020). Items of the student engagement construct were adapted from Deng, Benckendorff and Gannaway (2020), Whitney et al. (2019) and Dixson (2015). The construct, covering four dimensions were measured with 20 items. The four dimensions were Behavioral Engagement, Cognitive Engagement, Emotional Engagement and Social Engagement. The items were measured using a 7-point Likert scale where 1=Strongly disagree and 7=Strongly agree. The items are listed as below.

Behavioral Engagement

1. I work on the unit assessment tasks on a regular basis
2. I revisited my notes when preparing for assessment.
3. I stay up on the progress of the class
4. I prepare myself well with the necessary readings before the class.
5. I take good notes in class on readings, PowerPoints slides and/or videos.

Cognitive Engagement

1. I often search for further information when I encounter something that puzzled me.
2. When I have trouble understanding a concept, I go over it again until I understand it.
3. I try to connect different topics from the subject unit when studying.
4. I apply the knowledge learnt from the unit into my life.
5. I make the subject unit relevant to my daily life.

Emotional Engagement

1. I am inspired to expand my knowledge in accounting.
2. I found accounting interesting.
3. I desire learning in online chats, discussion or email with the instructor or other students.
4. I am motivated to learn accounting.
5. I enjoy the active participation in small group discussion.

Social Engagement

1. I engaged in online conversations (chat, discussion, email)
2. I post in the discussion forum regularly.
3. I share learning materials (notes, links, inputs) with other classmates.
4. My classmates make me curious to learn things.
5. I discuss topics, ideas and concepts with my classmates.

The questionnaire also included seven overall evaluation and reflection questions. The last section of the questionnaire were four simple demographic questions for classification purpose.

RESULTS and DISCUSSION

Sample Profile

- Majority of students (58.5%) were from the matriculation or Pre-U courses. The details are presented in Table 1.
- 87.7% were Malaysians (Table 2).
- English was the most commonly used language in the students' daily communication with their families and friends (45.5%), followed by Mandarin (40.9%) and Chinese dialects (9.1%).

Table 1: Entrance qualification

	Frequency (%) S1B3	Frequency (%) S2B1	Frequency (%) S2B4	Frequency (%) Total
Matriculation/Pre-U in English	14 (63.6)	10 (47.6)	14 (63.6)	38 (58.5)
Certificate/Diploma in English	1 (4.5)	2 (9.5)	2 (9.1)	5 (7.7)
A-Level	1 (4.5)	1 (4.8)	2 (9.1)	4 (6.2)
UEC	5 (22.7)	6 (28.6)	1 (4.5)	12 (18.5)
Others	1 (4.5)	2 (9.5)	2 (9.1)	6 (9.2)
Total	22	21	22	65

Table 2: Nationality

	Frequency (%) S1B3	Frequency (%) S2B1	Frequency (%) S2B4	Frequency (%) Total
Malaysian	22 (100)	17 (81)	18 (81.8)	57 (87.7)
Non-Malaysian	0	4 (19)	4 (18.2)	8 (12.3)
Total	22	21	22	65

Table 3: Daily communication language used with family and friends

	Frequency (%) S1B3	Frequency (%) S2B1	Frequency (%) S2B4	Frequency (%) Total
English	10 (45.5)	7 (33.3)	13 (59.1)	30 (46.2)
Mandarin	9 (40.9)	11 (52.4)	7 (31.8)	27 (41.6)
Tamil	1 (4.5)	0 (0)	0 (0)	1 (1.5)
Indonesian	0 (0)	2 (9.5)	0 (0)	2 (3)
Chinese dialect	2 (9.1)	1 (4.8)	2 (9.1)	5 (7.7)
Total	22	21	22	65

Overall Engagement Scores

The 20 engagement items were ranked according to their mean scores to evaluate the students' degree of engagement (Table 4). Higher mean implied higher engagement for the item considered.

The results show that students were more inclined towards Cognitive Engagement and Behavioural Engagement than Emotional or Social Engagement. High means were reported for the following items:

- I often search for further information when I encounter something that puzzled me (Q1.6 Cognitive, mean=5.85).
- I revisited my notes when preparing for assessment (Q1.2 Behavioural, mean=5.83).
- When I have trouble understanding a concept, I go over it again until I understand it (Q1.7 Cognitive, mean=5.77).

The surveys revealed important findings that the students did not appear to put in sufficient effort in pre-class preparation which is required for effective Block Mode teaching and learning. Higher level of self-learning and learning from peers should be further inculcated to enhance the students' social engagement and improve the dynamics of the classroom. The respondents also showed relatively low motivation to study the subject ADM. The items with the lowest scores are as follows:

- I prepared myself well with the necessary readings before the class (Q1.4 Behavioural, mean=5.03).
- I found accounting interesting (Q1.12 Emotional, mean=4.86).
- My classmates make me curious to learn things (Q1.19 Social, mean=4.83).
- I am motivated to learn accounting (Q1.14 Emotional, mean=4.75).
- I post in the discussion forum regularly (Q1.17 Social, mean=4.15).

Table 4: Overall Engagement Scores

	n	Mean
Q1.6. I often search for further information when I encounter something that puzzled me	65	5.85
Q1.2. I revisited my notes when preparing for assessment	65	5.83
Q1.7. When I have trouble understanding a concept, I go over it again until I understand it	65	5.77
Q1.18. I share learning materials (notes, links, inputs) with other classmates	65	5.49
Q1.1. I work on the unit assessment tasks on a regular basis	65	5.48
Q1.3. I stay up on the progress of the class	65	5.43
Q1.20. I discuss topics, ideas and concepts with my classmates	65	5.40
Q1.5. I take good notes in class on readings, PowerPoint slides and/or videos	65	5.40
Q1.9. I apply the knowledge learnt from the unit into my life	65	5.37
Q1.8. I try to connect different topics from the subject unit when studying	65	5.37
Q1.15. I enjoy the active participation in small group discussion	65	5.32
Q1.10. I make the subject unit relevant to my daily life	65	5.29
Q1.16. I engaged in online conversations (chat, discussion, email)	65	5.14
Q1.11. I am inspired to expand my knowledge in accounting	65	5.11
Q1.13. I desire learning in online chats, discussion or email with the instructor or other students	65	5.03
Q1.4. I prepare myself well with the necessary readings before the class	65	5.03
Q1.12. I found accounting interesting	65	4.86
Q1.19. My classmates make me curious to learn things	65	4.83
Q1.14. I am motivated to learn accounting	65	4.75
Q1.17. I post in the discussion forum regularly	65	4.15

Comparison of Overall Engagement Factors

The Engagement Scales used in this study comprised four factors namely, Behavioural Engagement, Cognitive Engagement, Emotional Engagement and Social Engagement. Descriptive statistics were computed for comparison (Table 5).

Table 5: Comparison of Engagement Factors

	n	Minimum	Maximum	Mean	Std. Deviation
Cognitive	65	1.00	7.00	5.5292	1.07380
Behavioural	65	1.00	7.00	5.4338	1.21479
Emotional	65	1.00	7.00	5.0154	1.30925
Social	65	1.00	7.00	5.0031	1.15893

It can be observed from Table 5 that:

- Cognitive Engagement has the highest mean (5.53), followed by Behavioural, Emotional and Social Engagement.
- The relatively high level of cognitive score revealed that our participants put in substantial effort to understand complex ideas and master difficult skills.
- The mean score for Behavioural Engagement was the second highest at 5.43. The score revealed that our participants exhibited more observable actions. They complied with institutional norms and participate in expected class activities.
- The score for Emotional Engagement (mean=5.02) was moderate. This factor measured the emotional connections students have with institutions, instructors, peers and the course content.
- The students were not open or active to interact with their peers or instructor as indicated by the relatively low Social Engagement score (mean=5.00).

Comparison of Engagement Factors across Blocks

ANOVA tests were conducted to investigate if there were difference in the four engagement scores across the three cohorts. The test results show that there were no statistical differences (Table 7). The three cohorts shared similar level of commitment and interaction with others while undertaking their ADM course.

Table 6: Mean scores by Block

		n	Mean	Std. Deviation
Behavioural	S1B3	22	5.4727	.84300
	S2B1	21	5.4952	1.26431
	S2B4	22	5.3364	1.49970
	Total	65	5.4338	1.21479
Cognitive	S1B3	22	5.3455	.84218
	S2B1	21	5.6476	.90312
	S2B4	22	5.6000	1.40475
	Total	65	5.5292	1.07380
Emotional	S1B3	22	4.7273	1.11020
	S2B1	21	5.2952	1.23874
	S2B4	22	5.0364	1.53764
	Total	65	5.0154	1.30925
Social	S1B3	22	4.6364	.89365
	S2B1	21	5.2571	1.15090
	S2B4	22	5.1273	1.34596
	Total	65	5.0031	1.15893

Table 7: ANOVA tests

		Sum of Squares	df	Mean Square	F	Sig.
Behavioural	Between Groups	.321	2	.161	.106	.900
	Within Groups	94.124	62	1.518		
	Total	94.446	64			
Cognitive	Between Groups	1.148	2	.574	.490	.615
	Within Groups	72.647	62	1.172		
	Total	73.794	64			
Emotional	Between Groups	3.481	2	1.740	1.016	.368
	Within Groups	106.224	62	1.713		
	Total	109.705	64			
Social	Between Groups	4.653	2	2.327	1.774	.178
	Within Groups	81.306	62	1.311		
	Total	85.959	64			

Students' academic background and daily communication language

We observed that students who have gone through a pre-university programme which practices high engagement learning strategy would normally engage better in Block Mode classes. The other factor that could contribute to active participation in classes is a student's confidence to communicate in English. Based on these observations, we performed a series of 2-independent sample t-tests to see if students from different academic and language backgrounds exhibit any significant differences with regard to the 20 engagement items used in this study.

Table 8 and 9 summarise the distribution of academic programmes the respondents joined before enrolled in VU and their most commonly used daily communication language. It could be noted that 58.5% of students came from various matriculation or foundation programs and 26.2% were from diploma or UEC programs. English was used by 46.2% of respondents while 49.2% used Mandarin or Chinese dialects in their daily communication with family and friends.

Table 8: Prior to joining Victoria University at Sunway, which academic program did you join?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Matric/Foundation	38	58.5	58.5	58.5
	Diploma/UEC	17 (5+12)	26.2	26.2	84.6
	Others	10	15.4	15.4	100.0
	Total	65	100.0	100.0	

Table 9: What is the language you usually use in your daily communication with family & friends?

	Frequency	Percent	Valid Percent	Cumulative Percent
English	30	46.2	46.2	46.2
Mandarin/Chinese dialect	32 (27+5)	49.2	49.2	95.4
Others	3	4.6	4.6	100.0
Total	65	100.0	100.0	

The t-tests results are showed in Table 10 and 11.

Table 10 shows that there were no significant differences between the Matriculation or Foundation programs cohort with those who came from Diploma or UEC in 18 out of the 20 items considered. Only two items, namely, *"I often search for further information*

when I encounter something that puzzled me" and *"I try to connect different topics from the subject unit when studying"* were perceived significantly different. The Diploma or UEC students reported lower level of agreement to these two items from the cognitive factor compared to those who came from the Matriculation or Foundation backgrounds. These could be the areas students from the Diploma or UEC programs would need more guidance.

Table 10: 2 independent sample t-tests Q1 vs Prior-course

	Prior-course	n	Mean	S.D.	Sig? p-value
I work on the unit assessment tasks on a regular basis	Matric/Foundation	38	5.39	1.498	No
	Diploma/UEC	17	5.53	.874	
I revisited my notes when preparing for assessment	Matric/Foundation	38	5.82	1.159	No
	Diploma/UEC	17	5.88	.781	
I stay up on the progress of the class	Matric/Foundation	38	5.42	1.536	No
	Diploma/UEC	17	5.53	.943	
I prepare myself well with the necessary readings before the class	Matric/Foundation	38	4.97	1.619	No
	Diploma/UEC	17	5.18	1.551	
I take good notes in class on readings, PowerPoints slides and/or videos	Matric/Foundation	38	5.55	1.155	No
	Diploma/UEC	17	5.41	1.004	
I often search for further information when I encounter something that puzzled me	Matric/Foundation	38	6.05	.804	Yes (0.049)
	Diploma/UEC	17	5.53	1.068	
When I have trouble understanding a concept, I go over it again until I understand it	Matric/Foundation	38	5.92	1.075	No
	Diploma/UEC	17	5.59	.939	
I try to connect different topics from the subject unit when studying	Matric/Foundation	38	5.58	1.308	Yes (0.04)
	Diploma/UEC	17	4.82	1.015	
I apply the knowledge learnt from the unit into my life	Matric/Foundation	38	5.61	1.028	No
	Diploma/UEC	17	5.12	1.166	
I make the subject unit relevant to my daily life	Matric/Foundation	38	5.50	1.084	No
	Diploma/UEC	17	5.00	1.414	
I am inspired to expand my knowledge in accounting	Matric/Foundation	38	5.26	1.465	No
	Diploma/UEC	17	5.06	1.435	
I found accounting interesting	Matric/Foundation	38	5.08	1.549	No
	Diploma/UEC	17	4.65	1.618	
I desire learning in online chats, discussion or email with the instructor or other students	Matric/Foundation	38	5.18	1.353	No
	Diploma/UEC	17	4.88	1.166	
I am motivated to learn accounting	Matric/Foundation	38	4.92	1.634	No
	Diploma/UEC	17	4.71	1.404	

I enjoy the active participation in small group discussion	Matric/Foundation	38	5.34	1.341	No
	Diploma/UEC	17	5.41	1.326	
I engaged in online conversations (chat, discussion, email)	Matric/Foundation	38	5.21	1.417	No
	Diploma/UEC	17	5.12	1.166	
I post in the discussion forum regularly	Matric/Foundation	38	4.18	1.768	No
	Diploma/UEC	17	4.24	1.602	
I share learning materials (notes, links, inputs) with other classmates	Matric/Foundation	38	5.66	.938	No
	Diploma/UEC	17	5.53	.874	
My classmates make me curious to learn things	Matric/Foundation	38	4.97	1.219	No
	Diploma/UEC	17	5.29	1.312	
I discuss topics, ideas and concepts with my classmates	Matric/Foundation	38	5.45	1.201	No
	Diploma/UEC	17	5.59	.939	

Differences due to language used for daily communication are showed in Table 11. Again, the item "*I often search for further information when I encounter something that puzzled me"* had lower score for those who used Mandarin or Chinese dialects comparing to those who used English. Consistent with this finding is another significant result where those who used Mandarin or Chinese dialect for daily communication reported less active in "*I engaged in online conversations (chat, discussion, email)".*

The findings should warrant some thoughts on how to encourage or help this cohort to improve their English language proficiency so that they might be more confident to engage with others.

Table 11: 2 independent sample t-tests Engagement vs Language

	Language	n	Mean	S.D.	Sig? (p-value)
I work on the unit assessment tasks on a regular basis	English	30	5.63	1.450	No
	Mandarin/Chinese dialect	32	5.28	1.350	
I revisited my notes when preparing for assessment	English	30	6.00	1.259	No
	Mandarin/Chinese dialect	32	5.66	1.125	
I stay up on the progress of the class	English	30	5.37	1.771	No
	Mandarin/Chinese dialect	32	5.44	1.134	
I prepare myself well with the necessary readings before the class	English	30	5.00	1.742	No
	Mandarin/Chinese dialect	32	5.00	1.606	

I take good notes in class on readings, PowerPoints slides and/or videos	English	30	5.47	1.358	No
	Mandarin/Chinese dialect	32	5.28	1.350	
I often search for further information when I encounter something that puzzled me	English	30	6.13	.681	Yes (0.027)
	Mandarin/Chinese dialect	32	5.53	1.319	
When I have trouble understanding a concept, I go over it again until I understand it	English	30	6.00	1.114	No
	Mandarin/Chinese dialect	32	5.50	1.270	
I try to connect different topics from the subject unit when studying	English	30	5.50	1.358	No
	Mandarin/Chinese dialect	32	5.19	1.378	
I apply the knowledge learnt from the unit into my life	English	30	5.43	1.278	No
	Mandarin/Chinese dialect	32	5.28	1.326	
I make the subject unit relevant to my daily life	English	30	5.40	1.404	No
	Mandarin/Chinese dialect	32	5.16	1.347	
I am inspired to expand my knowledge in accounting	English	30	5.07	1.741	No
	Mandarin/Chinese dialect	32	5.13	1.385	
I found accounting interesting	English	30	4.97	1.884	No
	Mandarin/Chinese dialect	32	4.75	1.503	
I desire learning in online chats, discussion or email with the instructor or other students	English	30	5.00	1.619	No
	Mandarin/Chinese dialect	32	4.97	1.332	
I am motivated to learn accounting	English	30	4.47	2.013	No
	Mandarin/Chinese dialect	32	4.94	1.390	
I enjoy the active participation in small group discussion	English	30	5.57	1.406	No
	Mandarin/Chinese dialect	32	5.09	1.467	
I engaged in online conversations (chat, discussion, email)	English	30	5.53	1.456	Yes (0.027)
	Mandarin/Chinese dialect	32	4.75	1.244	
I post in the discussion forum regularly	English	30	3.83	2.001	No
	Mandarin/Chinese dialect	32	4.38	1.519	
I share learning materials (notes, links, inputs) with other classmates	English	30	5.63	1.066	No
	Mandarin/Chinese dialect	32	5.31	1.230	
My classmates make me curious to learn things	English	30	4.73	1.818	No
	Mandarin/Chinese dialect	32	4.84	1.298	
I discuss topics, ideas and concepts with my classmates	English	30	5.40	1.522	No
	Mandarin/Chinese dialect	32	5.38	1.212	

How challenging do you find the Accounting for Decision Making course?

The students were asked to indicate how challenging they found the ADM course. The three cohorts expressed similar opinion. Majority of them (55.4%) said that the course was 'just right', 33.9% reported it was 'difficult' or 'very difficult'. The scores of each cohort is presented in Figure 1 and the aggregated result is showed in Table 12.

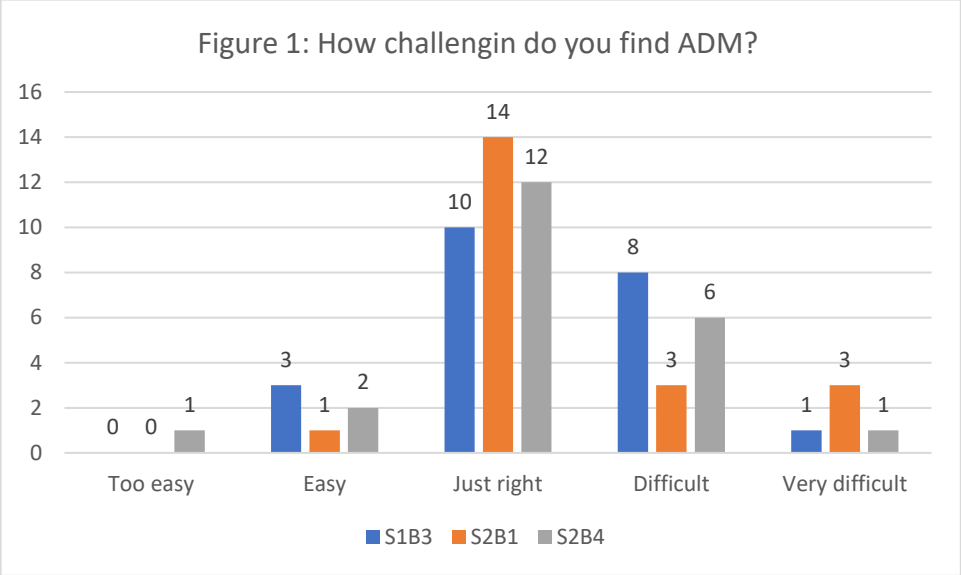

Table 12: How challenging do you find the Accounting for Decision Making course

		Frequency	Percent	Cumulative Percent
Valid	Too easy	1	1.5	1.5
	Easy	6	9.2	10.8
	Just right	36	55.4	66.2
	Difficult	17	26.2	92.3
	Very difficult	5	7.7	100.0
	Total	65	100.0	

Do you like what you are learning in this course?

- Overall, the students like the ADM course. 43.1% liked the course and 9.2 % reported they liked it very much. 30.8% said that they neither liked nor disliked the course (Table 13).
- It was noted that almost half (47.7%) of the total respondents reported *'Not at all', 'A little' or 'Neither like nor dislike'.* This finding was consistent with the low scores in the two Emotional Engagement items *'I found accounting interesting'* (mean=4.86) and *'I am motivated to learn accounting'* (mean=4.75) highlighted in the analysis of engagement scores.

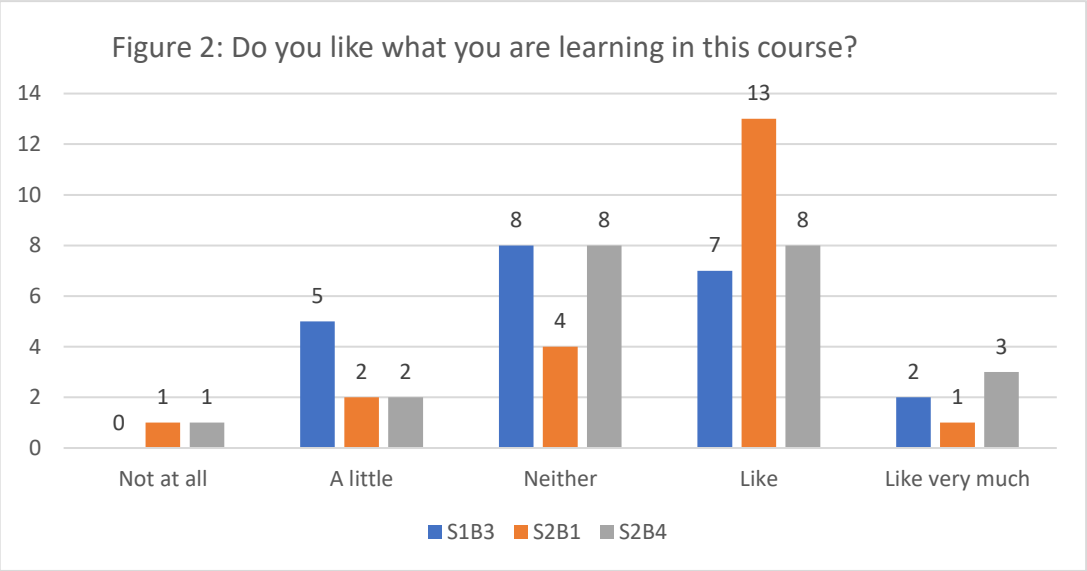

Table 13: Do you like what you are learning in this course

		Frequency	Percent	Cumulative Percent
Valid	Not at all	2	3.1	3.1
	A little	9	13.8	16.9
	Neither like nor dislike	20	30.8	47.7
	I like what I am learning	28	43.1	90.8
	I like this course very much	6	9.2	100.0
	Total	65	100.0	

Do you prefer online classes like what we are having now or the normal face-to face classes before the covid-19 pandemic?

It was good to find out from this study that all the three cohorts preferred face-to-face classes. 64.6% of the respondents preferred face-to-face classes, 21.5% had no preference and only 13.8% preferred online classes (Table 14).

- The three cohorts have gone through at least two years of online learning during the Covid-19 pandemic. Their preference to have face-to-face classes was a good indication of the students' realization of the advantages of face-to-face learning.
- The block mode teaching model requires active interaction and engagement. The students' preference for face-to-face classes would certainly enhance the learning outcomes.

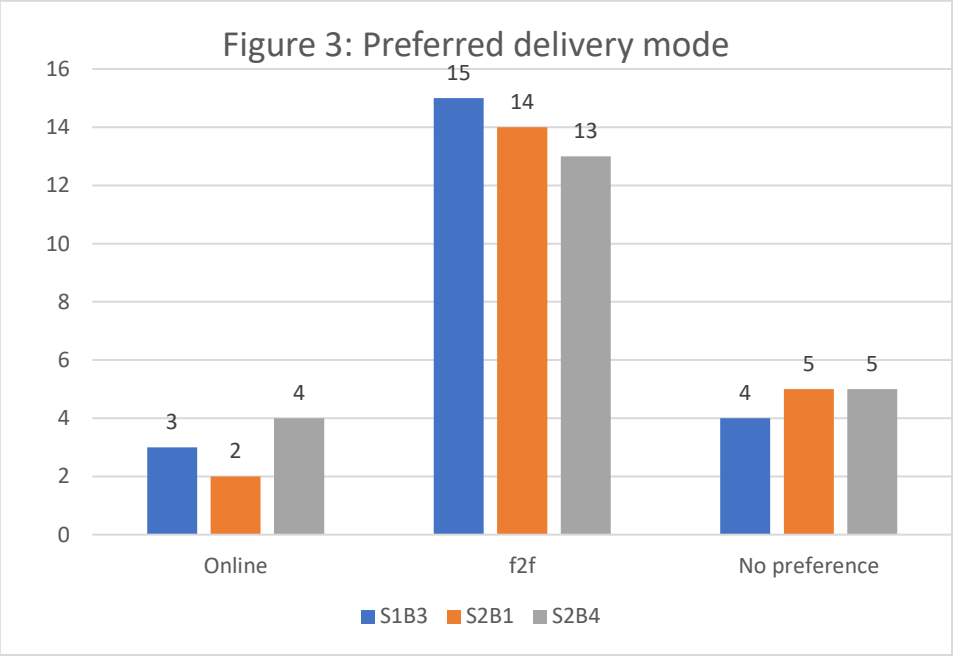

Table 14: Preferred delivery mode

		Frequency	Percent	Cumulative Percent
Valid	Online	9	13.8	13.8
	f2f	42	64.6	78.5
	No preference	14	21.5	100.0
	Total	65	100.0	

Effectiveness of Block Mode teaching

- The effectiveness of Block Mode teaching was evaluated using a 10-point semantic differential scale where 1=Not effective at all and 10=Very effective.
- Figure 4 depicts the distribution of the scores reported by the three cohorts. The distributions were similar among the three cohorts, as confirmed by the ANOVA test (p=0.929, indicating no statistical differences) in Table 15.
- The overall mean score of the three cohorts was 7.34 out of 10. The individual group means ranged from 7.23 to 7.41. The findings suggested that the students viewed Block Mode as a reasonably effective learning method.
- Further research could be conducted to identify areas of concern to improve the perceived effectiveness of the course.

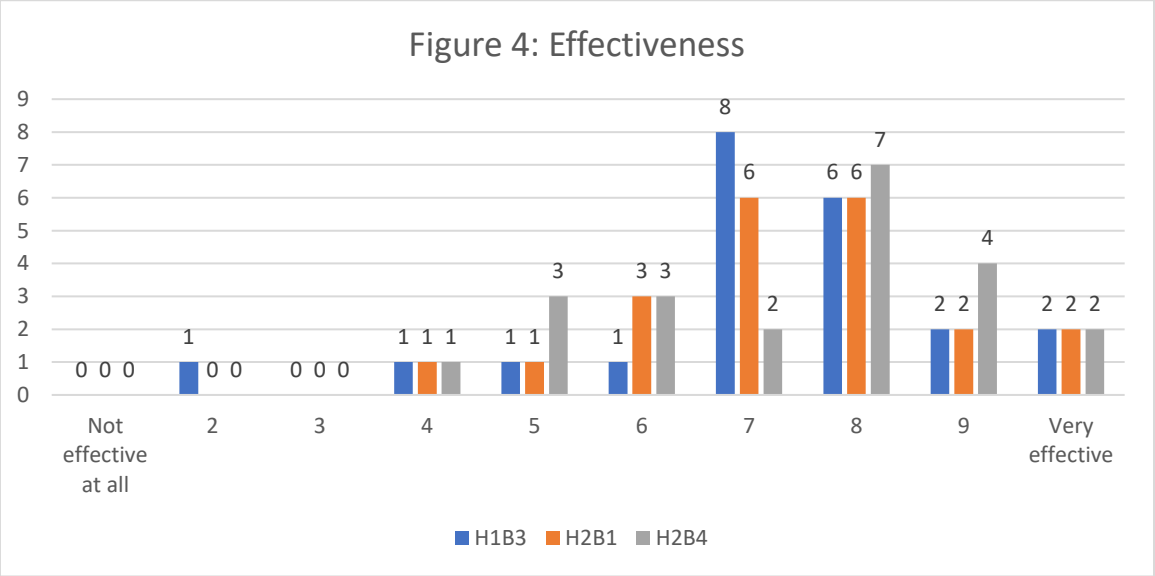

Table 15: ANOVA test of effectiveness by Block

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.420	2	0.210	.074	.929
Within Groups	176.134	62	2.841		
Total	176.554	64			

Table 16: Mean Effectiveness scores for Blocks

	n	Mean	Std. Deviation
S1B3	22	7.23	1.824
S2B1	21	7.38	1.499
S2B4	22	7.41	1.709
Total	65	7.34	1.661

How satisfied are you in learning the subject Accounting for Decision Making using Block Mode, as what you are experiencing now?

- The overall satisfaction of Block Mode teaching was evaluated using a 10-point semantic differential scale where 1=Not satisfied at all and 10=Very satisfied.
- Consistent with the results to evaluate the effectiveness of Block Mode teaching, the means of the three cohorts were similar and there were no significant differences based of the ANOVA test (p=0.452)
- The mean scores ranged from 7.00 to 7.60, with the overall mean equalled to 7.37 out of 10.

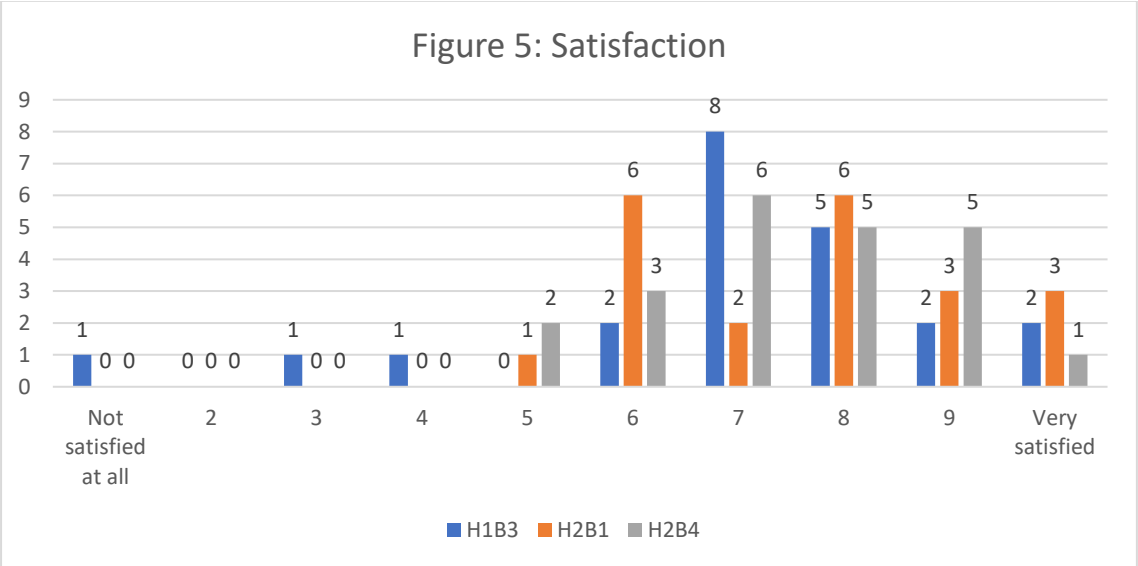

Table 17: ANOVA test of Satisfaction by Block

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.686	2	2.343	.805	.452
Within Groups	180.452	62	2.911		
Total	185.138	64			

Table 18: Mean Satisfaction scores by Blocks

	n	Mean	Std. Deviation
S1B3	22	7.00	2.116
S2B1	21	7.62	1.532
S2B4	22	7.50	1.371
Total	65	7.37	1.701

INSTRUCTOR'S REFLECTION

Over the one-year period in conducting the ADM classes in block model style, the instructor made improvement where the teaching approach, pace of delivery and design of classroom activity were being fine-tuned on a regular basis.

At the beginning, more than 3 hours of workshop were spent to complete the lessons and as a result, extra classes were arranged to make up the syllabus and to conduct the assignment briefing. On average, the instructor spent 1 to 1.5 hours per workshop on concepts and theories, about 1-hour on workshop questions, 20 mins on presentation and 30 to 45 mins on in-class activities/ case study. As time passed, there was better control of the teaching pace and the topics were being broken down into smaller chunk and were being incorporated into the classroom activities. For instance, 20 mins was spent on the main accounting concepts and principles, followed by a 30 mins classroom activity, where an illustration with calculation/ case study was being discussed to reinforce the learning and to deep-dive into applications. The students would work in a group to deliberate and exchange thoughts. At the end of the activities, recap was given in 10 mins, together with the illustrations of real-life examples related to the topic. After which, the same cycle was repeated when discussing another new topic. This 20-30-10 method has allowed the instructor to carry out more in-class discussion or activities, which promoted classroom engagement and interaction. Based on observation, when the students were engaged, they were able to focus and concentrate better in class even it was a 3-hour session. With an active learning environment, the students demonstrated higher level of commitment and interest towards the subject matter.

Besides that, the instructor also incorporated more pre-class short videos in her teaching strategy, with the aim to encourage pre-class preparation and cultivate the habit of pre-reading. These videos were mostly adapted from YouTube or eBook; these videos provided students a glimpse of what would be covered in the next class. The instructor also made the effort in highlighting a to-do-list at the end of each lesson and emphasised the importance of preparation, so that the students were reminded of their roles. Quotes like ‘preparation is the key’, ‘today’s preparation; tomorrow’s success’ and ‘to be prepared is half the victory’ were being shared to motivate them. Moreover, the students were constantly encouraged to at least read the end of chapter summary, if not going through the whole chapter. At times, the students were also supplemented with pre-class recording, so that they could view the recording in order to obtain a basic understanding on the next topic.

Given that block mode is intensive and the syllabus is covered within a 4-weeks period, additional quizzes were being created using the Quizizz platform. This was on top of the required online assessment at the end of each week in order to better prepare the students as well as to reduce their anxiety. With this, the students were able to gauge their current level of understanding on the topic and take corrective action to improve. This was vital to keep students on their toes and to ensure they were able to progress along with the class.

ANAYLYSIS ON BLOCK MODEL RESULTS

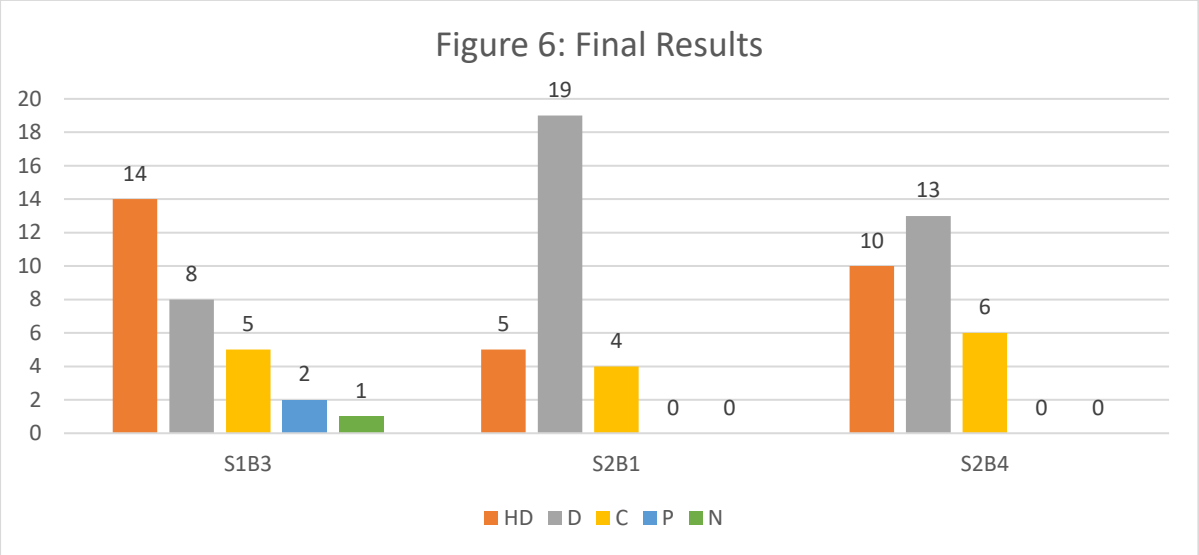

Table 19: Results by Blocks

	S1B3		S2B1		S2B4	
Grade	No.	%	No.	%	No.	%
HD	14	46.7	5	17.9	10	34.5
D	8	26.7	19	67.9	13	44.8
C	5	16.7	4	14.3	6	20.7
P	2	6.7	0	0	0	0
N	1	3.3	0	0	0	0
Total	30	100	28	100	29	100

The S1B3 cohort recorded the highest number of HDs. This might be due to the fact that there were a few top scholars in the class. A few of the students in this cohort were able to score 100% in the two online quizzes as well as the final test. The S1B3 students were generally more studious and were committed to their learning. They often came to class with adequate preparation and participated actively in the workshop discussion. This was evident as students came for consultation more frequently as compared to the other cohorts, especially before and after the classes. They were also active in post-class activities, particularly Padlet, where they sought clarification pertaining to the lessons as well as assignments. The S1B3 students

played a more pro-active role in their learning. Nevertheless, it was noted that one student in the S1B3 cohort failed ADM. This particular student has recorded poor attendance, with 3 absent and 5 late, out of 11 sessions. Furthermore, he did not attempt Quiz 1 (10% weight) and failed Quiz 2 (10% weight), which explained why he did not make it at the end.

From the above statistics, it was noted that the students' results have improved over the study period. Overall, the latest cohort (S2B4) achieved the best result, where the number of HDs has doubled, from 5 to 10 students as compared to S2B1. Furthermore, the S2B1 and S2B4 cohorts have achieved a grade of Credit and above. This could be attributed to the teaching approach, which was being improvised and refined continuously to achieve the purpose of this study. The primary focus of this action research was to improve on student-centred learning, with effective use of blended learning tools to create more opportunities for students to engage, connect and collaborate, which are the main essence of block model. The classroom activities and discussion were constantly updated to allow students to put theory into practice with real world scenarios while timely feedback was provided.

CONCLUSION AND SUGGESTION FOR FURTHER RESEARCH

The main focus of the Block Mode course design is to promote active learning through student engagement (The VU Way 2019). Our research found that while students demonstrated reasonably high level of cognitive engagement and behavioural engagement, they were less emotionally and socially engaged with their peers and instructors. Overall, the findings suggest that the three cohorts (S1B3, S2B1 and S2B4) were similar and did not exhibit significant difference in terms of learner engagement, effectiveness as well as satisfaction on Block Model.

The relatively high scores of the three cohorts in Behavioural and Cognitive Engagement indicated that they were more rooted in individualistic learning to perform well in the assessments than emotionally or socially engaged with peers or instructors. The Block Mode approach is designed for students to learn in an interactive, workshop-style environment. The students are supposed to feel empowered to ask

questions, debate ideas, and learn from their peers other than the instructor. It is meant to be a more engaging way to learn and develop critical thinking and problem solving-skills (VU Block Model 2020). The relatively low scores in emotional engagement and social engagement of this case study revealed that these are two important engagement dimensions that need further improvement to achieve the objective of Block Mode learning.

The need to improve on students' emotional and social engagement were further supported by the instructor's observation, as well as the students' feedback to the open-ended questions. As such, further research could be conducted to find out what are the underlying reasons. It is recommended that a longitudinal study on the same group of students when they advance to Year 3 could be conducted, in order to examine whether there is an improvement on the learners' engagement level as they gained more exposure, experience, skills and confidence through the Block Model.

This study also helped us to affirm that in order to assist students to adapt to active learning, an instructor needs to constantly observe, reflect and evolve in addressing issues arises. An effective instructor would need to have the necessary personality traits such as adaptability, creativeness, empathy, intuitiveness, passionate, patience, reflectiveness and resourcefulness to engage with the students and to support their learning in practical ways, as advocated by DeVito (2016). In conclusion, it is vital for the instructor to have a growth mindset in embracing the block mode principles, so that the benefits of block mode can be fully leveraged.

REFERENCES

Deng, R, Benckendorff, P & Gannaway, D 2020, 'Learner engagement in MOOCs: Scale development and validation', *British Journal of Education Technology*, vol. 51, no. 1, pp. 245-262.

DeVito, M 2016, 'Factors Influencing Student Engagement', *Advanced Study Thesis,* Sacred Heart University, Fairfield, CT. https://digitalcommons.sacredheart.edu/cgi/viewcontent.cgi?article=1010&context=edl

Dixson, MD 2015, 'Measuring Student Engagement in the Online Course: The Online Student Engagement Scale (OSE)', *Online Learning*, vol. 19, no. 4, pp.143-156.

Klein, R, Kelly, K, Sinnayah, P & Winchester, M 2019, 'The VU Way: The Effect of Intensive Block Mode Teaching on Repeating Students', *International Journal of Innovation in Science and Mathematics Education*, vol. 27, vol. 9, pp. 47-59.

McCluskey, T, Smallridge, A, Weldon, J, Loton, D, Samarawickrema, G & Cleary, K 2020, 'Building on the VU Block foundations: Results from the inaugural first year cohort', *Higher Education Research and Development Society of Australasia Inc*, vol. 42, pp. 60-72.

VU Block Model, viewed 20th June 2022, <https://www.vu.edu.au/study-at-vu/why-choose-vu/vu-block-model>

Whitney, BM, Cheng, Y, Brodersen, AS & Hong, MR 2019, 'The Scale of Student Engagement in Statistics: Development and Initial Validation', *Journal of Psychoeducational Assessment*, vol. 37, no. 5, pp. 553-565.