Student Engagement and Its Impact on Achievement in a Blended Learning Environment in Malaysia

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ABSTRACT:

Wawasan Open University (WOU) provides working Malaysians access to quality higher education via Open Distance Learning (ODL). As admission of students involves students from diverse backgrounds, including diversity of ability, age groups and educational backgrounds, WOU faces the real challenge of effectively engaging and supporting these students so that they are retained in the system and are successful in their studies. Krause (2005) explains that when students are not receiving targeted assistance, they may fail to engage, ultimately resulting in failure to persist and succeed. Engagement is closely aligned with student dissatisfaction and potential to withdraw from study. The purpose of this paper is to share the efforts made by Wawasan Open University to enhance the levels of student engagement in five factors in terms of participation in Tutorial classes, Learning Management System (LMS), WhatsApp Groups, and Communication with the tutor through mails and telephone, and motivation and Interest in learning activities. This intervention was carried out for a starter (enabler) course called Learning Skills for University Studies. About 600 students enrol in this course every semester. The tutors who are the first contact persons in Open Distance Learning were oriented about the student engagement process and the process of rating the students on a 10-point scale on the 5 factors stated above. The findings indicate that three factors (Students' participation in tutorial classes, participation in the Learning Management System and motivation and Interest) out of the five factors had significant relationships with all the three components of assessment.

KEYWORDS: Student Engagement, Blended Learning, Student Performance.

1. WAWASAN OPEN UNIVERSITY:

Distance learning programmes allow greater flexibility of learning. They are often necessary for those who wish to enhance their professional development and/or gain higher-level qualifications while simultaneously continuing to work. Wawasan Open University (WOU) provides working Malaysians access to quality higher education via Open Distance Learning (ODL) regardless of their educational, ethnic or socio-economic backgrounds. WOU students come from all walks of life, including school leavers, mature workers, full-time parents and even those between jobs. Many of them enter university studies through the open entry system and not traditional routes. The majority of students are over 21 years of age and there are students even in their 70's. For most students, English is their second or third language and their primary motive for studying is professional development. As admission of students into higher education involves students from diverse backgrounds, including diversity of ability, age groups and educational backgrounds, WOU faces the real challenge of effectively engaging and supporting these students in a blended learning environment so that they are retained in the system and are successful in their studies.

2. THE IMPORTANCE OF STUDENT ENGAGEMENT IN A BLENDED LEARNING ENVIRONMENT:

Academic progress and skills developed in students in the first year can lay the foundation for success throughout higher education (Pascarella & Terenzini, 2005) and that is why student engagement is considered very vital. Kuh (2009) argues that engagement has compensatory effects on grades and persistence for students who most need a boost to performance because they are not adequately prepared academically when they start higher education. This is especially so in an open distance learning mode that relies on learner autonomy, also called independent or self-directed learning. There are various definitions of student engagement but there is a general consensus that it requires both the investment and commitment of the student and the institution.

According to Klem and Cornell (2004), there are two types of student engagement: ongoing engagement which includes how students behave, think and feel whilst studying; and reaction to challenge, which refers to how students cope with arising challenges. Krause and Coates (2008) have highlighted that student engagement 'develops from the dynamic interplay between student and institutional activities.' Trowler (2010) summarized the character of student engagement by saying, "*Student engagement is concerned with the interaction between the time, effort and other relevant resources invested by both students and their institutions intended to optimize the student experience and enhance the learning outcomes and development of students and the performance, and reputation of the institution*" (Trowler, 2010, 3).

Coates (2007) describes engagement as 'a broad construct intended to encompass salient academic as well as certain non-academic aspects of the student experience'. He suggests that the following aspects be included in this definition:

- Active and collaborative learning;
- Participation in challenging academic activities;
- Formative communication with academic and support staff;
- Involvement in enriching educational experiences; and
- Feeling legitimate and supported by university learning communities.

It makes sense for institutions to be concerned about student engagement or its absence. Krause (2005) explains that institutions should be most concerned when students are not receiving targeted assistance resulting in their failure to engage. For many of these students, this

may ultimately result in failure to persist and succeed. A special area of concern should be the inertia apparent in first year students because it is closely aligned with student dissatisfaction and potential to withdraw from study. According to Harper and Quaye (2009a), there is empirical evidence that emphasizes the fact that strategizing ways to increase engagement for those for whom engagement is problematic, is a worthy endeavor.

The above discussion indicates the value of support mechanisms that needs to be in place at all levels because it promotes student persistence and achievement. Social support is one of the most important criterions for staying in an institution according to Skahill (2003). Student and staff interactions are highly important in student learning particularly for distance learning students in contributing to student satisfaction, retention and achievement (Dearlove, Farell, Handa & Pastore, 2007). Robinson and Hullinger (2008) assert that students who are satisfied with their learning provider are more likely to be engaged with their studies. This satisfaction stems from feeling they belong, feel accepted and receive affirmation as part of a learning community. While contact may be a challenge in a blended learning environment, students can still be engaged in a very effective way via online platforms and direct contact with tutors who provide regular feedback (Sharma, 2018a, 2018b). This is emphasized by Robinson and Hullinger (2008), who explain that prompt and appropriate feedback are also very important to encourage engagement.

3. THE COMMUNITY OF INQUIRY FRAMEWORK AND STUDENT ENGAGEMENT:

In line with the discussion above which is relevant in both conventional and blended learning universities is the usage of the Community of Inquiry framework which explains how students can be engaged specifically in a blended or online learning environment. When we design a program using a blended learning approach we are integrating both the human presence (face-to-face, classroom environment) with an online presence (discussion forums, etc.) to create that educational experience.

The Community of Inquiry theoretical framework is a process of creating a deep and meaningful collaborative-constructivist learning experience through the development of three interdependent elements – social, cognitive and teaching presences. These elements are used to engage students and provide an educational experience by setting the climate, selecting content and supporting discourse in a greater way and are discussed below.
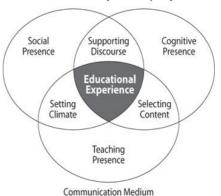

Figure 1: Community of Inquiry framework [Adapted from Garrison & Anderson, 2003]

Social Presence:

It is the ability of learners to share more than "just the facts" and to feel they are communicating with real people in cyberspace (Kehrwald, 2008). When social presence occurs, students feel they are communicating their emotions and attitudes and interpersonally connecting with others (Garrison & Arbaugh, 2007). Online researchers emphasize social presence as a key factor in student engagement. Researchers have found social presence to be positively related to students' learning and their sense of being connected within the class (Shea, Li & Pickett, 2006). At WOU, this is

encouraged by students' participation in the Learning Management System forums, tutorial classes, emails, WhatsApp groups and telephone conversations.

Teaching Presence :

It is the design, facilitation, and direction of cognitive and social processes for the purpose of realising personally meaningful and educationally worthwhile learning outcomes (Anderson, Rourke, Garrison & Archer, 2001). Teaching presence is about course design and organisation, discourse facilitation, and direct instruction (Akyol & Garrison, 2014). This can be seen in the way the course is organised on the Learning Management System and the course module which is written in a friendly way and forms the teaching voice of the course. At WOU, this is also supported by face-to-face tutorials and assistance provided on the LMS, via WhatsApp, emails and telephone.

Cognitive Presence

It is the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse (Garrison, Anderson & Archer, 2001). Cognitive presence requires attention, effort and commitment from both the faculty and the learners in a course community. Cognitive presence is achieving outcomes and understanding on an intellectual level. It is also present at an affective level when learning activities tap into students' existing meaning structures to create new meanings. Integrating existing learning with new learning requires knowledge, reflection, discussion and confirming of meaning. This support, in WOU, is given via activities and self-tests in the course modules, additional interactive resources and exercises on the LMS and enhanced by discussions on the LMS, WhatsApp, emails and the telephone. Hence, the entire educational experience of a learner is linked to the setting of the climate, selection of the content and supporting student discourse which are holistically used to engage

students through the cognitive, teaching and social presences.

4. WOU'S ENGAGEMENT AND SUPPORT VIA ENABLER COURSES:

WOU support and engagement is based on the Community of Inquiry model discussed earlier and uses a blended learning approach. Students meet their tutors face-to-face for a two-hour class each month for every course they take. The majority of the support is given via a moodle-based Learning Management System called *Wawasanlearn*. Students also receive additional support through telephone tutoring, emails and WhatsApp groups. Hence, it can be said that technology is relied upon heavily to engage and support our learners in a number of ways. As part of the initial support for new students, some enabling courses are provided that help students prepare for life in an open, distance environment at WOU. An enabler course is one that helps prepare students to successfully undertake undergraduate programs by understanding and applying discipline knowledge, concepts and principles appropriately as it will not only help students to adjust to university life but also help them succeed in life by increasing their confidence, competence and self-esteem.

The main enabler course in WOU is WUC131/03 Learning Skills for University Studies, a course taken by all first semester students whose learning outcomes include learning how to utilise WOU's website, Student Portal, Learning Management System, Online Assignment System (OAS) and the digital library. Students are also exposed to the various modes of open distance learning and learn to apply effective learning and stress management styles to manage their studies in an open distance area as well as their personal life. Other areas that they learn in this course are skills and strategies that they can use to handle various types of exam questions and test anxiety. This course also introduces the students to the manner of academic

writing, addressing plagiarism in their work by using the Turnitin software and techniques to making effective oral presentations. This course does not only help them sharpen their academic skills but also teaches them how to use the technological tools that support their online learning. Studies have shown that academic study skills such as the ones taught in this enabler course have been found to be essential predictors of student success (Tuckman & Kennedy, 2011) to improve academic performance and persistence and engagement (Hoops et al., 2015).

Two free workshops support this course and students are encouraged to attend them during their first semester. The first one at the beginning of semester is the Returning to Learning Workshop which helps students learn how to manage their learning, network with other students, tackle assignments and how to do academic writing using appropriate in-text citation and referencing skills.

It also is part of the social presence support component where students meet senior tutors face to face who are there to answer student queries and help them to adjust to student life in a blended environment after leaving school for many years.

The other workshop towards the end of the semester is the Exam preparation skills workshop which helps students identify common issues faced in the exam, review strategies that can be used in the examination, practice exam techniques through a range of questions and discuss both general and specific preparations that need to be made before and on the day of the exam.

These workshops are held at every Regional Centre throughout the country in a face-to-face manner to encourage greater interaction and engagement among the staff and students. As discussed earlier, encouraging students to begin their student life via an enabling course has been shown to improve their academic success in their subsequent courses.

5. BACKGROUND TO THE PROBLEM:

Each year about 1800 students enrol for different programmes at WOU. In a larger study that was carried out related to this one, it was found the attrition rate per year prior to 2018 ranged from 34% to 40, a range very similar to open universities throughout the world. The academic reasons that contributed to this figure account for only 12% of the total reasons. The other 88% were reasons that were personal in nature such as heavy job-related workloads, financial issues, family and medical crises.

As many of the reasons were related to students' inability to manage and cope with work and studies, efforts were made by the university to enhance the levels of student engagement among first semester students in five factors in terms of participation in Tutorial classes, Learning Management System (LMS),

WhatsApp Groups, communication with the tutor through e-mails and telephone, and motivation and Interest in learning activities, with the hope that additional student engagement may be able to help students combat some of the issues faced. The Learning Skills for University studies course was one of the main enabler courses where these additional efforts were taken as it is the first course that most undergraduate students enrol for at WOU.

6. INTERVENTIONS THAT WERE CARRIED OUT:

There were various intervention efforts that were carried out to further strengthen student engagement in the enabler courses. All the tutors tutoring the enabler courses were called for a refresher tutor training session.

They looked at the assignment questions from the previous years and helped to fine tune them by suggesting constructive changes that could be made to enhance students' understanding of the assignments. They also commented on the course content and how it can be revised to further meet student needs.

Past year exam papers were discussed and some considerations were listed for future papers. Issues that students faced were also collated during this session. The tutor guide given to all tutors was discussed and revised accordingly to reflect the changes that needed to be made for updating purposes and tutorial structures.

In the tutorial classes, the tutors were asked to discuss past year questions related to the units in every tutorial. Past year questions were posted on the Learning Management System according to the unit topics of the course. Additional guidelines were given as part of exam preparation. Tutors kept in touch with the students to ensure that assignments were submitted by the deadlines. The project team also sent out reminders for assignment submission via SMSes to the students.

WhatsApp groups were set up for each tutorial class and the tutors maintained continuous interaction with their students. The chat groups were very active and most questions were related to the preparation and submission of assignments. The WhatsApp groups were very helpful in addressing immediate needs of the students as they prepared their assignments and revised for the exam.

Participation on the *WawasanLearn* (the Learning Management System) was enhanced via various activities. Some courses required student postings related to the assignments to be given as appendices to their assignments and this saw a surge in the number of postings as shown below.
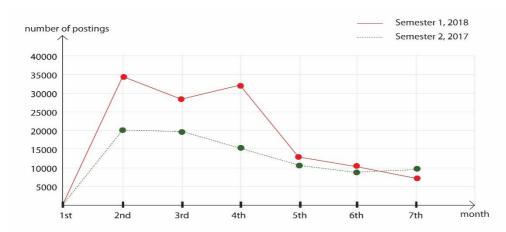

Figure 2: The increase in postings on the Learning Management System after the interventions [Data obtained from the Learning Management System at WOU (2018)]

Close monitoring of student progress was maintained by tutors. The students were given regular advice on the writing of assignments, submission and meeting of deadlines as well as how to excel in their exams.

All the slides used in the five tutorials were revised and reduced to an appropriate number for each tutorial. The course content in these slides was updated to ensure its currency and according to the language level of students. The tutor

guide, a document that is given to all tutors was discussed with the tutors and revised accordingly to reflect the changes that needed to be made for updating purposes and tutorial structures.

7. FINDINGS:

These interventions were carried out for a starter (enabler) course called Learning Skills for University Studies which is a first level course. About 600 students enrol in this course every

semester. The tutors who are the first contact persons in Open Distance Learning were oriented about the student engagement process and the process of rating the students on a 10 point scale on 5 factors. These factors were as follows:

- Students' participation in tutorial classes based on discussions initiated by students or their responses to the comments of others. The students were evaluated on how they opened topics for discussion, their responses to ideas put forth by other students, how active they were in the tutorial groups and the ideas they voiced out.
- Students' participation in the learning management system, their frequency of participation, nature of participation and quality of discussion. Here the students were evaluated on how often they posted in the various forums on the Learning Management system, the quality of the discussions that took place and not just simple acknowledgements like 'Thank you' and 'Noted.'
- Students' participation in the WhatsApp groups, frequency of participation, nature of participation and quality of discussion. In these groups, the evaluation criteria were similar to the ones used for the Learning Management System. Students were evaluated on the types of discussions initiated, the questions asked and the responses given.
- Communication with the tutor through email and telephone and the frequency of contact. The criteria that was used here was how often the students communicated with the tutor for the entire semester.
- Students' motivation and Interest and the ranking based on the intensity of student eagerness to learn measured by their participation in class or online, desire to excel in their assignments and final examination and the desire to learn on their own. This category involved the motivation and interest students showed in their learning,

whether they were self-directed in preparation of the assignments and their readiness for tutorial classes and the final examination.

The tutors were requested to keep a record of each student with respect to these five factors over a period of 5 months. At the end of the semester each student was rated.

A sample of 150 students' data was analysed in relation to the five factors. The score on each factor was correlated with the marks obtained on three components of assessment namely assignment (OCAS-overall continuous assessment score, OES-overall examination score and CS-Course Score).

The findings indicate that three factors (Students' participation in tutorial classes, participation in the Learning Management System and motivation and Interest) out of the five factors had significant relationships with all the three components of assessment that is the coursework score (OCAS), final examination score(OES) and the final course score (CS).

The experimental design involved students, from 4 Regional centres, namely, Penang, Johore Bahru, Kuala Lumpur and Ipoh for the enabler course, Learning Skills for University Studies. Figure 3 shows the results of the statistical differences among the factors.

Figure 3 shows that post intervention student interest and motivation ranked the highest followed by tutorial participation and participation in the Learning Management System and these are strong significant predictors.

The interventions carried out also resulted in an increase of 3% in the rate of assignment submission for assignment 1 and 2.15% in the rate of assignment 2.

Though the passing rate was maintained at 96%, the percentage of people who successfully completed the course increased by 3% from 79 % to 82%

Statistical Differences amongst Factors (p-value)			
	OCAS	**OES**	**CS**
Tutorial			
p-value	0.01	0.05	0.03
Statistical Differences	Yes	Yes	Yes
LMS			
p-value	0.00	0.04	0.322
Statistical Differences	Yes	Yes	Yes
WhatsApp			
p-value	0.224	0.65	0.972
Statistical Differences	No	No	No
Tutor			
p-value	0.03	0.75	0.04
Statistical Differences	No	No	Yes
InterestMotivation			
p-value	0.05	0.01	0.02
Statistical Differences	Yes	Yes	Yes

Figure 3: Statistical differences among factors

Table 1: Assignment submission, exam passing and course completion rates

Semester	Number enrolled	Rate of Assignment 1 submission	Rate of assignment 2 submission	Passing Rate	Rate of course completion
July 2017	680	87.35%	83.67%	96	79
Jan 2018	663	90.34%	85.82%	96	82

8. THE MAIN CONTRIBUTION OF THE PROJECT:

These interventions carried out to strengthen student engagement have demonstrated that engaging students online and via tutor support increases their motivation and interest in the course. The findings also showed that there was an improvement in overall assignment and course completion rates. Students' participation in the forums on the Learning Management System also increased. The interventions also contributed to promoting meaningful learning experiences. Since a student-cantered approach to instruction was enhanced, it helped to successfully achieve the course's learning outcomes in a better way. This emphasises how important it is for a blended learning course to be designed with consideration being given to the cognitive, teaching and social presences as explained by the Community of Inquiry framework. These presences are vital for student engagement and are very important for students to move from being dependent to independent learners and also learn how to juggle their various work, personal responsibilities and their studies.

From the project it can also be seen that students who are actively engaged have enhanced self-beliefs and better control over learning processes which

helps them develop greater confidence and commitment to learning. This further cultivates intrinsic motivation, which fosters the self-determination that leads to engagement. The interventions also helped students to feel more accepted and affirmed. The additional support services that were given were perceived as part of the institutional culture and contributed towards students' learning efforts. Finally, the interventions enabled students to develop their social and cultural capital which is derived from a sense of belonging, from active relationships with academic staff and peers and the knowledge of how to function in an open distance learning institution. This is especially essential for students who return to learning after many years and who need to be successful not only in the classroom but beyond it as well.

9. THE IMPACT OF THE RESEARCH PROJECT:

Student retention strategies in higher education institutions have to deal with student engagement. This is especially true in a blended learning environment where face-to-face exposure is limited and students have to rely heavily on the Learning Management System and other forms of support. Even though attrition is usually higher in these learning environments, if students are taught to effectively acclimatise themselves to the spaces, they will be better at balancing their workload, family responsibilities and academic work.

Basically because student engagement improves the quality of the academic experience in students, it helps to increase student retention and contribute to strengthen the relationship between a university and its students. The support that was given to them via interventions in this course can be considered as the fuels of the engagement process, because when students are both challenged and provided the appropriate amount of support, they are motivated to reach their potential. This study also suggests it is important to focus on the interaction that takes place between students and instructors. Thus, active learning and student engagement is imperative for increased student learning and ultimately retention.

The clarity of design, interaction with instructors, and active discussion among students significantly influenced students' motivation and interest as shown in the findings. As one of the challenges of open distance learning is feelings of isolation, with the offering of a variety of topics that were relevant to their ability to adjust to the university and issues relevant to them, the learners became more invested in the course discussions and assignments, as well as their course mates. The constructive feedback that affirms how they are performing well and detailed ways to improve given to the students were also enhanced. When tutors participated in discussions online by providing prompt responses, asking follow-up questions, and seeking student feedback about how to improve the course, their students perceived the teacher's presence to be greater (Jaggars, Edgecumbe & Stacy, 2013) and feelings of isolation were decreased. Students felt as though they were more acquainted or familiar with their classmates and tutors when given the opportunity to participate in interactive sessions. Tutors, also by their active social presence engendered a sense of caring by soliciting student feedback about the course and using that feedback to enhance the way they managed the course. In online learning environments the tutor's most important role is establishing his presence and personality in the course content, discussions, and activities (Shea et al., 2006).

Discussion forums are usually only active if students are also required to contribute to the discussion and points awarded towards their contribution. In this course, the first assignment required students to make five postings on the forums and the postings increased because students received marks for them. The assignments were also tailored in such a way that they could be attempted by this

unique population with different learning styles.

Regular announcements on the forums, through emails and WhatsApp groups that were sent out regarding the course information, important events and due dates served as timely reminders. By retraining tutors and emphasising that they are the vital link between the students and the university, tutors worked to further enhance engagement with students. It is important for course coordinators to design well-structured courses, maintain regular communication and presence in their courses, and promote student engagement. This can lead to greater student perceptions of learning and satisfaction (Eom, Ashill & Wen, 2006). Furthermore, there are positive implications for providing courses that include opportunities for learners to interact with each other in addition to a high-level of involvement from the tutor and course coordinator.

The interventions done in this study demonstrated that they enhanced student motivation and interest, attendance at tutorial classes and activity on the forums of the Learning Management System. The students benefitted and were empowered to become more independent and self-directed learners.

It is important for faculty to design well-structured courses that use sound pedagogical practices using real life examples to engage a diverse group of learners and support them. Experiential approaches including the use of guided reflection are also continuously used. Tutors and course coordinators maintain regular communication, provide feedback, explicit guidance and continuously work on strengthening their courses. This can lead to greater student perceptions of learning and satisfaction, engagement and ultimately leading to lower attrition rates.

The university currently has two committees set up to see oversee problems related to attrition and retention as well as teaching and learning. It gives a lot of attention to enabler courses to enhance student engagement. A special unit on

student engagement was also established in 2018 where micro-casting was introduced to help students by providing audio and written guidelines for their assignments. Mentors were also appointed to cater for the students at all the WOU regional centres. WOU is working out new ways to continuously engage our students via their educational experiences, active and collaborative learning, supportive campus and online environments and student-faculty interactions.

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