

**Exploring factors impacting student engagement in open access courses**

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## **Exploring factors impacting student engagement in open access courses**

**Mahsood Shah & Ming Cheng**

### **ABSTRACT**

Studies on student engagement in learning have mainly focused on undergraduate degree courses. Limited attempts have been made to examine student engagement on open access enabling courses, which is targeted to underrepresented students in higher education. Students on open access enabling courses are at high risk due to a low academic achievement in high school, the gap between schooling, work and post-secondary education, and different kinds of personal and academic barriers. This paper reports on a pilot quantitative study using a survey method undertaken at an Australian university. The study examined a range of issues related to student engagement, including learning barriers, engagement and experience in learning, skills attained, motivation to complete study, career pathway, and key reasons for selecting a particular pathway. The study found that online students are less engaged in learning and, therefore, efforts need to be made to improve their sense of belonging to the university. The findings of the study are critical due to high attrition on open access enabling courses and it argues the need to improve the engagement, retention, and success of students on such courses.

### **KEYWORDS**

Open access; enabling courses; student engagement; access courses

### **Introduction and overview of enabling courses**

An enabling course is defined as a 'course of instruction provided to a person for the purpose of enabling the person to undertake a course leading to a higher education award' (Department of the Attorney General, 2003, p. 215). Open access enabling courses have been in place in Australian higher education since the 1970s. They are preparatory courses that, on successful completion, qualify a student for entry into various undergraduate degrees. Open access enabling courses are similar to access courses in the UK and foundation or preparatory courses in the USA and other countries. Students on open access enabling courses come from very diverse backgrounds with characteristics, including disadvantaged, underrepresented, lacking opportunity and access, alienated, marginalised and ethnic minority (Bull, 2000; Cantwell, Archer, & Bourke, 2001; Coombes & Danaher, 2006; Crawford, 2014; Dawe, 2004; Habel, 2012; Klinger & Murray, 2009). In other words, these students are often from a low socio-

economic background; non-English speaking; living in a regional or remote area; poor levels of basic skills; and early school leavers (Asmar, Page, & Radloff, 2011; Cantwell et al., 2001; Coombes & Danaher, 2006; Dawe, 2004; Klinger & Murray, 2009; Sciffer & Shah, 2015; Shah, Goode, West, & Clark, 2014).

Studies have revealed that there is a range of barriers that limit students who are enrolled on enabling courses to access higher education. Some of the barriers include location and distance from the university, financial pressures, low academic achievement in high school, failure to complete high school education, lack of appropriate careers advice, parental discouragement of higher education, lack of confidence, parenting or carer responsibilities, mental health issues and other social problems (Shah et al., 2014). Many of these students do not consider university as a welcoming pathway due to their failure or negative experience in their past educational efforts (Anderson, 2007; Behrendt, 2012; Coombes & Danaher, 2006). They undertake such courses in order to self-assess their confidence before undertaking undergraduate study (Boyle & Wallace, 2011; Shah et al., 2014).

As of 2016, open access enabling courses were offered in 39 Australian universities (Pitman et al., 2016) representing 91% of universities in the country, yet there is a dearth of information on how institutions monitor academic standards on those courses. The Australian government review, 'Demand Driven Funding System in Australia', has alluded to the risk of enabling courses, due to lack of national accreditation and the gap in academic outcomes compared to students who gain direct entry into the university (Kemp & Norton, 2014). Most recent review of enabling courses concluded that students who completed enabling courses have a below-average retention and success rate in undergraduate study compared to students who completed diploma and advanced diploma courses (Pitman et al., 2016). In 2017, the Australian government announced changes in the future funding of enabling courses as part of a higher education reform package (Australian Government, 2017).

Despite its presence since the 1970s, limited research is undertaken in Australia to examine student engagement on open access enabling courses. The high academic risk of students on enabling courses due to their previous education attainment requires institutions to engage in research on engagement, transition and retention, and examine academic outcomes at undergraduate level. Based on a pilot study undertaken at an Australian university with long history of offering open access enabling courses, this paper examined the extent to which students on open access enabling courses are engaged in learning. The study examined the following areas:

- learning barriers faced by students
- student engagement and experience in learning
- skills developed and further skills needed while undertaking open access course
- motivation to complete study
- career pathway of students
- key reasons for selecting particular pathways.

## Review of literature

Student engagement is a multifaceted concept and has its origin in Pace's (1982) measures of quality of effort, and theory of involvement developed by Astin (1984, 1985), Kuh, Whitt, and Strange (1989), Kuh et al. (1991), Pike and Kuh (2005), and Lawson and Masyn (2015). Astin (1984) defined engagement as the amount of physical and psychological energy that the student devotes to the academic experience. Kuh (2003) described student engagement as the time and energy students devote to educationally sound activities, and the policies and practices that institutions use to induce students to take part in these activities (also see Kuh, 2001), which have an empirical link to desired academic outcomes (Kuh, 2009a).

Student engagement relates to how higher education institutions allocate their human and other resources as well as how they organise learning opportunities and services to encourage students to participate and benefit from involvement in activities (Manning, Kinzie, & Schuh, 2014). As such, engagement consists of various factors, including interactions with faculty, involvement in co-curricular activities, and interaction with peers (Kuh, 2009b; Pascarella & Terenzini, 2005). Kuh (2009b) listed two major aspects that are important to student success in educational activities: in-class (or academic) engagement, and out-of-class engagement in educationally relevant (or co-curricular) activities. These understandings of student engagement suggest that its key components can be summarised as behavioural, emotional or psychological, cognitive, and academic (Appleton, Christenson, & Furlong, 2008; Fredricks, Blumenfeld, & Paris, 2004; Finn & Zimmer, 2012; and Lee, 2014). Despite that there is no consensus on which of these above-mentioned components are important, most studies have included behavioural and emotional components (Lee, 2014).

Studies so far have focused on using student personal attributes as the predictors of student engagement. Duran et al. (2006) in their study of undergraduate students in Spain found that emotional intelligence and self-efficacy can be considered important predictors of student engagement. Fullarton (2002) recognised that gender and parents' education influences the level of engagement of high school students. Shernoff (2002), however, identified another three main factors which can affect student engagement, including:

- being challenged in terms of academic intensity
- opportunity to demonstrate skills
- being able to work in a group instead of listening to a lecture.

Sharma and Bhaumik (2013, p.34) outlined potential predictors for student engagement including academic inputs (61%), helpful administration (57%), followed by syllabus of the courses (49%), and computing facilities (47%).

Numerous recent studies have shown that there is a positive relationship between student engagement in purposefully learning activities and desired learning outcomes (Archambault, Janosz, Fallu, & Pagani, 2009; Greene, Marti, & McClenney, 2008; Heng, 2014; Kahu, 2013; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Zepke, 2013). For example, Archambault et al. (2009) discovered that student disengagement was associated with eventual dropout over the short term. Heng (2014) examined the relationships between student engagement and the academic achievement of first-year university students in Cambodia. He concluded that student engagement in the

form of time spent on course- related tasks outside the classroom, homework tasks, and whole-class active participation were the stronger predictors of student achievement. Goodenow and Grady (1993) and Voelkl (1995) held similar views about high level of engagement and the positive impact on grades.

Studies suggest that a number of factors can have positive effect on student engagement in learning, such as enhancing students' self-belief (Zepke, 2013; Zepke & Leach, 2010), developing students' confidence (Dymock, 2007), identity (Thomas, 2012), and ownership in the learning process (Yurco, 2014). There is also a view that the teaching process is key to engagement (Zepke & Leach, 2010). Teachers can motivate students to engage in learning by creating a welcoming and supportive learning environment (Kuh, 2009a). Teachers can also engage students by setting appropriate learning challenges (Bryson & Hardy, 2012; Radloff & Coates, 2010), having suitable learning assessment (Parsons & Taylor, 2011) and using suitable teaching methods, such as active learning that is assumed to increase student motivation and enhance engagement (Kift, 2009).

Apart from teaching, a trustworthy relationship between teachers and students is another motivating factor (Bryson & Hardy, 2012; Coates, 2010; Richardson, 2011; Scott, 2008). Regarding institutional factors, Nelson and Creagh (2013) asserted that the type and approach of student support offered by institutions is crucial to student engagement. 'The proposed support to motivate students in their learning includes creating a learning environment (Kift, 2009) which is active (Parsons & Taylor, 2011), and is well-equipped with multimedia and technology and (Zepke, 2013; Zepke & Leach, 2010)'. Thomas (2012) indicated that central to high retention rate and success is a strong sense of belonging, which can be built via major activities that students take part in. Therefore, to nurture the strong sense of belonging in students, institutions need to foster and promote supportive peer relations and enable students to have meaningful interactions with staff (Baik, Arkoudis, & Naylor, 2015; Coates, 2010; Parsons & Taylor, 2011; Scott, 2008).

Review of literature shows that most studies undertaken so far on student engagement in many countries are focused on students in undergraduate studies. So far, no research has focused on students enrolled on open access enabling courses. The study reported in this paper addresses the current gap and argues the need for further research.

### Rationale of the study

The subject university has a long history of offering open access enabling courses in Australia. The open access enabling course at the subject university has provided opportunity for many students to access tertiary education. Across Australia, open access enabling course have a high attrition. Students undertaking the face-to-face course have more than 50% attrition (Hodges et al., 2013) and students studying online have an attrition rate above 60% (Whannell & Whannell, 2013). The main aim of the study was to examine student engagement in learning and examine if there is link between barriers in learning and the level of engagement. The study is significant given the characteristics of students enrolled on the course. Students on open access enabling course are at risk of failure if adequate transition and academic support is not provided.

## Methodology

A quantitative method was used for the study. A survey questionnaire was developed after benchmarking with national student engagement questionnaires in Australia, UK and USA. The instrument used in the USA, UK, and Australia has been validated and cognitively tested (Kuh, 2009a). Due to the characteristics of students on an open access enabling course, the survey was customised to suit the need of open access enabling courses and student characteristics. The survey had nine sections that enabled students to rate items on 1–5- or 1–3-point Likert scale. The draft survey tool was trialled with 16 students in 2015, after which further revision was made. All mature-age students on the open access course, on-campus and online, were invited to participate in the online survey. The survey was undertaken between weeks 9 and 11 of semester two, with an initial email and one reminder. In total, 468 (38%) students participated in the study. While the response rate was low overall, the sample was representative of the two campuses where the course is delivered, as well as the online delivery. The data analysis was undertaken using t-tests and statistical significance to find out any correlation between different variables.

## Findings of the study

### Employment

The survey asked respondents about their employment status while studying. The study found that 53% of students are in full-time or part-time employment. 22% respondents are stay-at home parents due to caring responsibilities, and the other 25% are unemployed. The majority of these students (52%) are working between 0 and 9 h per week. 15% work between 10 and 19 h, 13% between 20 and 30 h, and 20% are working more than 30 h per week. The increased working hours suggest the financial pressures on underrepresented students to gain income while studying. The common industries in which most respondents are working include nursing homes, hospitality, retail, and office administration.

### Learning barriers or obstacles

The survey asked students about the personal or academic barriers they faced in their learning. The aim was to see if there is any relationship between these barriers and student engagement in learning. Respondents were asked to rate the top five barriers they are experiencing. The study found the following key barriers:

- juggling work and study (33.6%);
- caring for children (29.5%);
- financial difficulty (18.8%);
- mental health issues, e.g. anxiety, depression (15.4%); • and academic writing skills (12.8%).

**Table 2** outlines the full results. Analysis using different variables shows some notable differences. Students who are unemployed have a higher level of mental health issues than those who are employed. Online students have outlined mathematic skills and distance from the university as a key barrier in learning. The study found a strong relationship between two variables. They include learning barriers and the extent to

which students are engaged in learning. For example, a face-to-face student is more engaged in learning on all engagement measures except participation in online discussions.

### Engagement in learning

The main purpose of the survey was to examine student engagement in learning. The most recent national study on first-year experience in Australia with students in undergraduate study found that students with low academic achievement in school were less prepared for university, experience less enjoyment, and had lower levels of engagement (Baik et al., 2015). The study reported in this paper is only focused on open access enabling students who have low academic achievement and a range of academic and personal barriers. The results are presented in Table 3 below. The top five indicators of student engagement on open access enabling course include:

- submission of assessments on time (89.3%)
- regular access to online learning materials (85.9%)
- spending time studying off-campus (85.2%)
- attending classes (83.2%)
- feeling a sense of belonging to the university (65.1%).

The findings of this study with open access enabling students are somewhat similar to the national first-year experience research in Australia. In both studies, students reported high levels of engagement with online technologies. However, submission of assessments, time spent studying off-campus, class attendance, and sense of belonging, were not found to be a strong indicator of engagement in the national first-year experience study (Baik et al., 2015). The study found that students on open access enabling course felt a sense of belonging to the university (65.1%) compared to (47.0%) in national first-year experience survey. The most recent engagement study in the UK found the following highest engagement areas:

- responsibility for own learning
- challenged to do best on the course
- applying facts, theories or methods (Neves, 2016).

Analysis using different variables shows that face-to-face students have high levels of engagement. Female student engagement in off-campus study is higher than male engagement. Similarly, their engagement with library resources is higher and they are more likely to use various learning support services. Students above the age of 31 tend to interact with the teachers more than students aged between 20 and 30 years. The study also found that first-in-family students are more likely to work with other students as part of study compared to non-first-in-family students. Table 3 outlines the results on student engagement.

### Skills development

An important part of the study was to assess the extent to which students have gained key skills after completing an open access enabling course and before enrolling on a

degree course. The findings suggest that students have rated the following areas as the top five skills developed or attained:

- the ability to write clearly and effectively in English (73.8%)
- independent learning skills (73.8%)
- ability to think critically (63.8%)
- being able to work with students from other backgrounds (63.8%)
- time management skills (63.1%).

The most recent UK student engagement result found similar skills developed among undergraduate students: independent learning, thinking critically and analytically, working effectively with others, and academic writing (Neves, 2016). The UK study, however, found other skill development areas that are not evident in the Australian study with open access enabling students. These areas of skill development include exploring complex real-world problems, and being innovative and creative.

The areas with low skill development included oral communication skills (47.0%), and skills related to finding a job (23.5%). Table 4 outlines the results. Analysis using different variables suggests that online students have developed less skill compared to face-to-face students. A significance of (0.002) is found with online students in skills such as writing, oral communication, analysis, and critical thinking. Online students have developed mathematical and time management skills greater than face-to-face students. First-in-family students have developed less skill in writing and oral communication compared to non-first-in-family students. Students who are in employment are more skilled in being innovative and creative compared to those who are unemployed. Female students have attained oral communication, analytical, time management, job-finding, and independent learning skills more than male students.

### Learning experience

The survey provided the opportunity for students to outline their learning experience in the open access enabling course. Some of the items used to assess the learning experience are similar to the national course experience questionnaire (CEQ). The top five areas of positive learning experience include:

- access to online resources (84.6%)
- teaching staff and their knowledge of the subject (82.6%)
- usefulness and relevance of learning materials (81.2%)
- teaching staff helped in learning (80.5%)
- course gave confidence to undertake an undergraduate degree (80.5%).

The study also found a number of areas where further improvement is needed. A low level of student experience is found in essential services such as counselling (28.2%), careers advice (37.6%), and academic skills workshops (42.3%). While not all students use these services, they are important for students in access courses who are at risk of withdrawing from study due to family pressures and mental health issues (see Table 7 for possible causes of withdrawal). Access students tend to be high users of counselling services that may not be adequate to meet the demand. Young students between the ages of 20 and 30 experience a high level of family pressures. Therefore,



they are at risk of withdrawal. The low levels of experience are evident in all cohorts of students including face-to-face and online, full-time and part-time, first in family and non-first in family. [Table 5](#) outlines the results. Analysis of different variables found one key difference in terms of learning experience. The experience of online students in relation to feedback on assessment was lower than face-to-face students (significance of .043).

### More learning support

Due to the characteristics of students, and the key purpose of the course, it was important to find out the kinds of additional support needed to prepare the students well for undergraduate study. The need for additional support in areas where students lack confidence is critical to ensure a smooth transition into degree courses. It is also critical in terms of first-year retention and engagement. The top five areas where students needed more learning support included:

- mathematical skills (42.3%)
- analytical skills (42.3%)
- critical thinking skills (40.9%)
- time management skills (40.3%)
- oral communication skills (38.3%).

Analysis of different variables found that students below the age of 31 lacked critical thinking skills. Non-first in family students needed more support in developing skills related to English writing and being an independent learner.

### Motivation to stay and complete studies

With a high attrition on open access enabling courses, the study examined if students were planning to withdraw. 28.2% of students on the course were considering withdrawing and 60.4% were inclined to continue. Some of the possible reasons for withdrawing are outlined in [Table 7](#) below. The top five reasons included family pressures (12.8%); employment commitment (8.1%); mental health issues (6.0%); physical disability and physical health issues (3.4%), and feeling of isolation (3.4%). Students aged 31 years and above outlined family pressures (e.g. caring for family) as a possible cause of withdrawal. Students who are employed reported employment commitments and mental health issues as possible causes of withdrawal. Face-to-face students reported timetabling, staff access, teacher feedback, and access to online technologies as possible causes of withdrawal. Our findings suggest that a small proportion of students on open access enabling courses are at risk of withdrawing due to a mix of personal life and university-related factors.

### Career pathway

Previous research has shown that most open access enabling students choose caring professions or undergraduate study areas such as nursing, allied health, social work and teaching. The findings suggest that 69.8% students have chosen their undergraduate pathway and 18.8% are uncertain. The key chosen disciplines in undergraduate level included nursing and midwifery (22.1%), sciences (10.7%), social sciences (8.7%), education (8.7%), and health-related areas (6.0%).

Underrepresented students do not tend to choose elite courses such as medicine, dentistry, pharmacy, and specialist engineering and information technology-related areas.

### Motivation for choosing undergraduate discipline

The final section of the survey asked students to outline the key motivation for choosing the undergraduate study area. [Table 8](#) outlines the results. The top five motivations to choose the relevant undergraduate discipline include:

- a career which interests students (74.5%)
- employment prospects for job security (57.7%)
- wanting to work in a profession where they can contribute to community (49.7%)
- profession with flexible work hours (43.6%)
- being able to earn higher income (40.3%).

The least motivating factors for student choice include parent influence (10.1%) and better social status (17.4%).

Analysis using different variables found that part-time students and females were inclined to choose professions with flexible work hours. Male students are motivated by professions where jobs provide better social status. Students aged above 31 years are motivated to choose professions where they can contribute to community and professions with flexible work hours. Unemployed students tend to undertake cheaper courses with low debt.

### Conclusion

Previous research has shown that students on open access enabling courses have low academic achievement. Most students enrolled on such courses are from underrepresented backgrounds with different kinds of learning barriers related to personal circumstances, health and academic confidence. Studies in the Australian context have also shown a high attrition on enabling courses and low levels of academic outcome of such students in undergraduate studies. So far, no study in Australia has focused on assessing student engagement on open access enabling courses. The use of a single survey to assess a range of areas, such as learning barriers, student engagement, attainment of skills, learning experience, learning support needed, possible causes of attrition, and career pathway provides an opportunity to develop strategies to engage students explicitly on open access courses.

The study found that on engagement measures, face-to-face students are more engaged in learning compared to online students. The lowest level of engagement among online students is in relation to being able to work with other students as part of the study, and having access to relevant learning support. The study found that online students thought about withdrawing due to difficulty in accessing teaching staff, and adequate feedback on learning. The findings of this research suggest the need to ensure increased support for online students who are at a higher risk of withdrawing from study. The findings also require institutions to acknowledge that the expectation

of online students is different from face-to-face students. Therefore, the education pedagogy for online course delivery is different from face-to-face delivery.

The study shows that there is correlation between learning barriers and possible reasons for withdrawal. Family pressures (mainly caring for family), employment commitment, mental health, and physical disability and health are key barriers in learning which may lead to withdrawal. The key predictors of student engagement on open access enabling courses include on-time submission of assessment, accessing learning material online, time spent studying off-campus, attending classes, and a feeling of belonging to the university.

Improving student engagement is fundamental to the success (Coates & Ransom, 2011) of a disadvantaged group. The growing diversity of students with different levels of academic preparation requires different engagement strategies for key student groups. Lack of evidence-based strategies could result in high attrition, low progression, and poor graduate exit standards. Apart from the financial imperative, the high attrition and success of underrepresented students limits their life chances in terms of employment, health, and other social and economic benefits. Student engagement and success is therefore a moral imperative for tertiary education institutions.

Our study shows a large proportion of underrepresented students in full-time or part-time employment. Underrepresented students have significant financial pressures along with a range of personal and academic barriers, such as caring for family and children, mental health, physical disability and health, academic writing, distance from university, and adjusting to the university learning environment. Our study found that quality of teaching, online learning resources, relevant course materials, helpful teaching staff, and building student confidence are key to positive learning experience. The study also found that underrepresented students value key support services such as counselling, careers advice, and help with academic skills.

Open access enabling courses aim to prepare students for undergraduate study. Our study found that students need extra support in areas such as mathematics, analysis, critical thinking, time management, and oral communication. These skills are relevant in undergraduate study and also in gaining employment.

The development of strategies to engage students on open access enabling courses provides a unique opportunity for universities to improve transition, engagement, retention and success at a small scale, which could be phased out across the university. If the engagement strategies engage and retain the most vulnerable students, such strategies could be effective with other student cohorts. Student engagement studies at national level are becoming important. National instruments are used to measure engagement in the USA, UK and Australia, and they are also being used in Canada, South Africa, China, and Ireland (Howson & Buckley, 2016).

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