Designing practical strategies to increase STEPS students' attendance at face-to-face, on campus classes

Preliminary findings

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Abstract

Enabling educators are continually seeking avenues to improve the outcomes for students who choose an enabling pathway in quest of a changed life through education. This paper reports the preliminary findings of a research project focused on CQUniversity's Skills for Tertiary Education Preparatory Studies (STEPS) Program. The project seeks to better understand students' conceptions of the benefits of attending face-to-face, on-campus classes and the factors that influence their choices to attend. The project investigates the link between attendance, academic achievement and retention and aims to identify a more effective alignment between the conception of expectations and the provision of a quality learning experience for STEPS students. The premise is that this alignment may be facilitated by either changing or broadening students' expectations to better match the reality of the university experience, or it may be that the program needs to adjust its approaches to student engagement to better meet the needs of students. The role of STEPS in creating a foundation for motivation, and developing autonomous study habits is critical, as it may determine the students' willingness to commit to engaging more fully in undergraduate study. Class attendance has long been regarded as a vital component of a quality education, but with the accessibility of online material and the ever increasing opportunities to study online, the viability and value of face to face classes is being challenged. This research seeks to validate the positive impact class attendance has on student success and to enhance current teaching practices to ensure the STEPS program continues to deliver a quality learning experience that meets student and institutional expectations.

Introduction

The aim of this research is to capture the perceptions held by enabling students studying in the *Skills for Tertiary Education Preparatory Studies* (STEPS) program at CQUniversity with regards to the value of attending internal face-to-face classes in order to inform a more effective alignment of students' conception of expectations and the provision of a quality enabling experience. An improved alignment may be facilitated by either changing or broadening students' expectations to better match the reality of the university experience, or it may be that the program needs to consider adjusting its approaches to student engagement to better meet the needs of participating students.

Class attendance has long been regarded as a vital component of a quality education; however, with the ever broadening and higher level accessibility of online materials, the notion of the value of students attending an internal face-to-face class is being questioned . For many years, the *Skills for Tertiary Education Preparatory Studies* (STEPS) program, when offered internally, has boasted a high attendance rate; however, in recent years there has been a growing trend to lower attendance in face-to-face, on campus classes. This research aims to understand the value students place on attending face-to-face classes, and will consider practical strategies and teaching practices that STEPS educators could employ to attain higher rates of attendance and an improved level of student engagement, academic achievement and student retention.

Contextual background

STEPS as an enabling program

Twenty-seven years of existence positions STEPS as a well-known, highly respected and much sought after enabling program offered by CQUniversity, Australia. This popularity may be attributed not only to the success of STEPS graduates in subsequent undergraduate study but also to the growing belief within the CQUniversity community that the program provides a solid preparation for students who do not possess the necessary qualifications to enter tertiary study in the conventional manner. The program is recognised as an ideal entry pathway for those who lack the pre-requisite skill and knowledge that a university culture demands.

STEPS is a full time or part time, internal or external enabling program, free of tuition fees and available to learners 18 years or older, of Australian or New Zealand citizenship, or holders of a permanent resident or humanitarian visa. Applicants are expected to have completed the equivalent of a Year 10 education, or show a propensity to study successfully at the tertiary level. As a Centrelink approved program, STEPS empowers students from socially, economically and educationally disadvantaged backgrounds to eliminate the barriers that locate them outside of the tertiary sector and to reach their educational potential. It embeds the belief that with self-motivation, commitment and perseverance, students can become independent, self-directed and successful learners at the tertiary level.

STEPS comprises of one core course, *Preparation Skills for University* and a suite of 11 electives from which students may choose to establish an individualised study plan based upon entry test results and career aspirations. The suite of electives include: *Positive Learning for University; Essay Writing for University; Technical Writing for University; Fundamental Mathematics for University; Intermediate Mathematics for University; Technical Mathematics for University; Computing Skills for University; Introductory Physics; Introductory Biology; Introductory Chemistry;* and *Foundation Science.*

Theoretical Framework

Factors contributing to non-attendance

Non-attendance of face-to-face classes within the university sector is a behaviour that perplexes educators. Longden (2006) proposes that universities should be interested in what their students' conceptions are about the journey they are about to undertake as it has a tangible influence on student engagement and retention. Non-attendance of lectures and tutorials appears to be a growing trend and the literature suggests that there are many contributing factors which include students' changing lifestyles, personal attitudes and beliefs, and access to technology. The question of why university students do not attend internal classes has inspired numerous studies (Arulampalam, Naylor, & Smith, 2007; Fazey & Fazey, 2001; Fjortoft, 2005; Friedman, Rodriguez, & McComb, 2001; Gump, 2006; Jessup-Anger, 2011 ; Massingham & Herrington, 2006; Romer, 1993 ; Stewart, Stott, & Nuttall, 2011; Wyatt, 1992), the results of which point to student's behaviour being motivated by factors such as personal attitudes, lifestyle choices, work values, and personality traits. Additionally, Massingham and Herrington (2006) identified that health and lifestyle factors are barriers to class attendance and lack of interest or motivation are barriers to class learning (2006, p.96). Naber and Kohle (2004) suggest access to technology is another contributing factor to non-attendance at on campus classes.

Friedman et al. (2001) research into why students do or do not attend university identified minimal differences in absentee rates between gender, and that age and class standing was also insignificant. However, they discovered that where there was a policy in place that involved checking for and penalising absences, attendance was improved. They state that 'when teachers do not assess attendance and do not provide lively, meaningful instruction, absences increase' (2001. p.7). Additionally, Friedman et al. (2001, p. 7) suggest the primary attendance motivator is internal, 'a sense of responsibility to be present'. Students' responses verified a strong intrinsic work ethic as a major contributor to class attendance (2001).

Massingham and Herrington (2006) claim that today's reality is one where the majority of students will attend classes only if they perceive 'value' in doing so and these 'value' perceptions are based largely on the teaching process and the competence of the facilitator. An Australian study of first year students' expectations found a majority of students acknowledged it would be important for them to attend lectures and tutorials (Crisp et al, 2009). Yet, this finding does not align to results reported in a longitudinal study of first year students in Australia which documented that full-time students are spending less time on campus attending lectures and tutorials (Krause, Hartley, James, & McInnis, 2005). This indicates a variance between student's perceptions of their expected action/behaviour and the reality of their behaviour. An acceptable indicator of student engagement is the time devoted to study, which includes attending classes and spending time on campus.

Research suggests that attendance has a direct correlation to student performance (Gump, 2006) and when at a high level has a positive effect on performance and achievement levels (Durden & Ellis, 1995; Gatherer & Manning, 1998; Grabe & Christopherson, 2008; Massingham & Herrington, 2006; Stewart, Stott, & Nuttall, 2011; Thatcher, Fridjhon, & Cockcroft, 2007). Massingham and Herrington (2006) found that satisfactory to frequent attendees were more than twice as likely to be in the higher percentile of performers compared to poor attendees who were more likely to be low level performers. Research by Friedman et al. (2001) substantiates that higher levels of attendance are associated with a higher grade point average. Additionally, Arulampalam et al. (2012. p. 23) found that class attendance is 'a productive activity, the estimated causal effect of missing class is negative'.

Chang (2007) proposes that the true purpose of face-to-face classes is under attack as more students use alternative methods to access course materials. This is further substantiated by Naber and Köhle (2004, p. 1) who identify the main reason for absenteeism at university as being the availability of other relevant study material. Massingham and Herrington, (2006) pose the question as to why educators continue to believe students with competing life commitments will want to attend classes if universities provide course material online. Friedman et.al (2001) claim that students would skip class if they felt that their attendance was superfluous and this was increasingly evident if the course content was available from another source.

Methodology

This research project which is concentrating on having the student voice inform at each stage of the process uses a mixed methodology approach which comprises of four elements, conducted over two phases of study, the first phase of which is reported in this paper. Firstly, patterns of attendance were drawn from existing class rolls and data were analysed to search for any variables or patterns that might indicate a correlation between higher levels of attendance and success rates. Attendance and performance data were examined across four courses within the STEPS program: *Computing Skills for University, Preparation Skills for University and Essay Writing for University* and *Fundamental Mathematics for University*. This data were drawn from campuses hosting internal classes: Bundaberg, Rockhampton, Gladstone, Mackay and Noosa campuses. Secondly, an anonymous online survey was distributed to the entire internal STEPS cohort across all campuses offering the internal mode of study. Questions posed were designed to capture the student voice in order to gain a rich source of data relating to reasons for the level of attendance and students' perception of the value of attending internal classes.

Data collection

Stage 1: Interrogation of attendance rolls

The first stage of data collection was to identify patterns of attendance for internal students across multiple locations alongside results to determine if a correlation between attendance and results in a course could be identified. The data was drawn from class attendance rolls from Term 1, 2012 to Term 2, 2013. Four courses, *Preparation Skills for University* (PSU), *Computing Skills for University* (CSU), *Essay Writing for University* (EWU) and *Fundamental Mathematics for University* (FMU) were targeted as these courses were undertaken by all participating students.

Attendance was measured in percentage and student results were converted to a pass or fail scenario. Using the Correlation Data Analysis Tool through Excel, Pearson's Correlation Coefficient was calculated for the attendance and results achieved in each of these four courses.

PSU	0.53673369
CSU	0.578339963
EWU	0.58047844
FMU	0.606696544

These results show that higher attendance rates were correlated with a higher tendency to pass a course, $r \geq 0.5$, which can be considered a notable effect. Excel did not allow calculation of the significance of the correlation; therefore, the same correlation to the rest of the population from which our sample was drawn cannot be assumed.

Descriptive Statistical Analysis

Table 1 Descriptive Statistics for Attendance and Results

	Attendance			**Result**		
	N	Mean	SD	N	Mean	SD
PSU	765	0.656925	0.260499	765	0.835294	0.371158
CSU	609	0.718779	0.272254	609	0.834154	0.372248
EWU	493	0.695198	0.251383	493	0.72211	0.448414
FMU	659	0.731403	0.263245	659	0.796662	0.402788

The standard deviations (SD) for attendance in the four different courses are within a small range, 0.020871, which indicates that the data is closely scattered around the mean for each course. The SD for result is also within a small range, 0.077256, which means that both the attendance and results data for the four different courses are not spread too far from the mean.

The lowest mean attendance was recorded in PSU, while the lowest mean result was recorded in EWU, although not significantly different. The highest mean attendance was recorded in FMU and the mean result for FMU is not far removed from the highest mean result in the table.

With regards to course specific findings, in *Preparation Skills for University* (PSU), 639 of the 765 students (83.5%) attained a pass grade and had an average attendance rate of 72%. The difference in attendance between the pass group and fail group in PSU is clearly evident. The average percentage attendance for students who failed (34%) was significantly lower than the average attendance for students with a pass grade (72%). It is clear from the table below that attendance plays a significant role in the successful completion of the PSU course.

Pass - Fail relationship for Preparation Skills for University

Table 2 Average attendance for students who passed or failed PSU

PSU	**Pass**	**Fail**
Number of students	639	126
% of students	83.5%	16.5%
Avg attendance %	72%	34%

In the course *Computing Skills for University* (CSU), the table below reveals similar data to PSU. A similar percentage of students failed (16.6%), despite a lower average attendance rate (21%). The 83.4% of students who were awarded a pass grade had an average attendance rate of 79%, which confirms the strong relationship between attendance and passing grade.

Pass - Fail relationship for Computing Skills for University
Table 3 Average attendance for students who passed or failed CSU

CSU	Pass	Fail
Number of students	508	101
% of students	83.4%	16.6%
Avg attendance %	79%	21%

In the case of *Essay Writing for University* (EWU), although the attendance mean is similar to the attendance mean for CSU, fewer students passed EWU compared to CSU and PSU. This course attracted the highest failure rate (27.8%), when compared to the other courses, although the attendance rate for students who failed (46%) was significantly higher when compared to the other three courses.

Pass - Fail relationship for Essay Writing for University
Table 4 Average attendance for students who passed or failed EWU

EWU	Pass	Fail
Number of students	356	137
% of students	72.2%	27.8%
Avg attendance %	79%	46%

Fundamental Mathematics for University (FMU) attained a 79.7% pass rate and a 20.3% failure rate. This course posted an average attendance rate of 81% for students who passed the course and a 42% attendance rate for students who failed (20.3%). These students registering fail grades had a higher attendance rate than PSU and CSU, but lower than EWU.

Pass - Fail relationship for Fundamental Maths for University
Table 5 Average attendance for students who passed or failed FMU

FMU	Pass	Fail
Number of students	525	134
% of students	79.7%	20.3%
Avg Attendance %	81%	42%

These statistical findings confirm a strong relationship between attendance and a pass grade in four of the component STEPS courses. However, on analysis, no clear statistical evidence between the rates of attendance correlating to higher grades was identified.

Stage 2: Online survey
The second stage of data collection derived from an online survey of internal students. The participant group in the online survey were students enrolled from Term 1, 2012 through to and including Term 1, 2014. In total, 129 students responded, 83.6% being female and 16.4% being male. The following table shows the 18-25 years cohort registering the highest response rate at 34.9% with students aged 36-45 years at 30.2%. The remaining responders were either 26-35 years at 17.1% or 46-60 years at 17.8%.

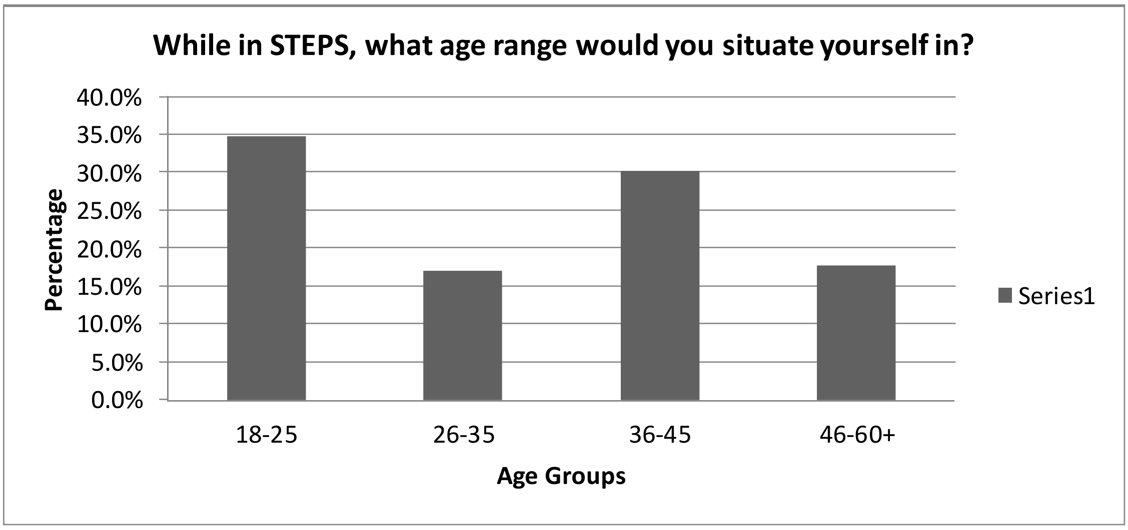

Figure 1 Age range of participants

Of the students surveyed, 93% considered attendance at scheduled classes to be vital to gaining a quality education, with only 7% responding in the negative. When asked how they would describe their own level of attendance, 87.1% situated themselves as regular attendees (80% or more of scheduled classes). Of the remaining respondents, 12.9% identified themselves as infrequent (less than 50%) or intermittent (50% - 80%). It is reasonable to assume a correlation between the high level of attendance and the corresponding appreciation of internal classes. In turn, these students have a greater propensity to attend classes due to a higher level of motivation to succeed.

Students were asked to explain why they felt attendance was vital to gaining a quality education. On analysis, a number of themes were identified. The most common response related to the support students received from **lecturing staff.** '*The lecturer contributes vital and helpful information'.* Students acknowledged lecturers were *'thorough, understanding and willing to work at a pace where everyone was able to stay on board'* and in turn this '*motivated them'*. In addition, they felt that questions were answered instantly and they received prompt feedback and support. *'You are able to receive guidance and a deeper understanding of the subject. Lecturers can answer questions immediately and become aware of any struggles the students are having'.* The value placed on lecturer knowledge and experience was also scored highly. '*In these competitive times people have to start putting value into experienced lecturers...what you gain from these valuable learned people in person exceeds what you would ever learn from a text book… there is nothing like reading the text and then listening to an enthusiastic lecturer to back up the information'.* Students felt that **content clarification** was also highly beneficial. '*I feel that you get a better learning experience. You can ask questions, clarify ideas and learn from not just the lecturer but from other students.'*

Another theme that emerged was that of **motivation**. '*Face-to-face classes kept me motivated and interested in what I was studying. I prefer this more 'intimate' environment as opposed to distance classes.'* Students commented that the scheduled classes assisted with motivation and they enjoyed the face-to-face interaction; whereas, studying at home, students felt that the connection to university was lost. Some students aligned higher grades with attendance. '*I believe that internal attendance is vital. In my own experience I know that I achieve higher results and retain more information from internal classes.'* This theme aligned closely with comments that reflect the importance of understanding the **university culture** and **academic rigour**. *'The scheduled classes were a vital part of me integrating into university level study.' 'In STEPS, internal classes are important as you do not know the ropes of University yet…we needed the face-to-face learning as we were not sure what university academic level was like.'* Students entering an enabling program such as STEPS have often been away from education for an extended period or they did not gain strong academic skills at high school. This under-preparedness can be disconcerting and if not addressed, students may be setting themselves up for failure. '*Attendance is vital….More so for a preparatory program like STEPS where students are learning the self-discipline that study requires. Internal classes provide an emotional as well as academic crutch that the vast majority of students undertaking an enabling program require*.' As a part of the program, students are taught about academic standards and made aware of the expectations at a university level, thereby assisting with a positive transition into undergraduate study.

Peer support as a positive characteristic of face-to-face classes was also an identifiable theme. '*Face to face learning is really beneficial as it helps to build students confidence and internal classes encourage students to form real life support groups*.' Students felt that they built connections with like-minded people and they were able to interact and support each other and learn from peer discussions, which in turn, improved student engagement. '*Students asked questions about problems that I had not thought of so I learnt from class mates which does not occur as much with distance.'*

Two survey questions were specifically directed to students who indicated they were lower level attendees. The first question focused on the factors that contributed to low level of class attendance and resulted in 76.2% of respondents claiming family/personal reasons, 33.3% citing employment issues, 28.6% identifying medical challenges and 23.8% financial pressures as the factors that hindered attendance.

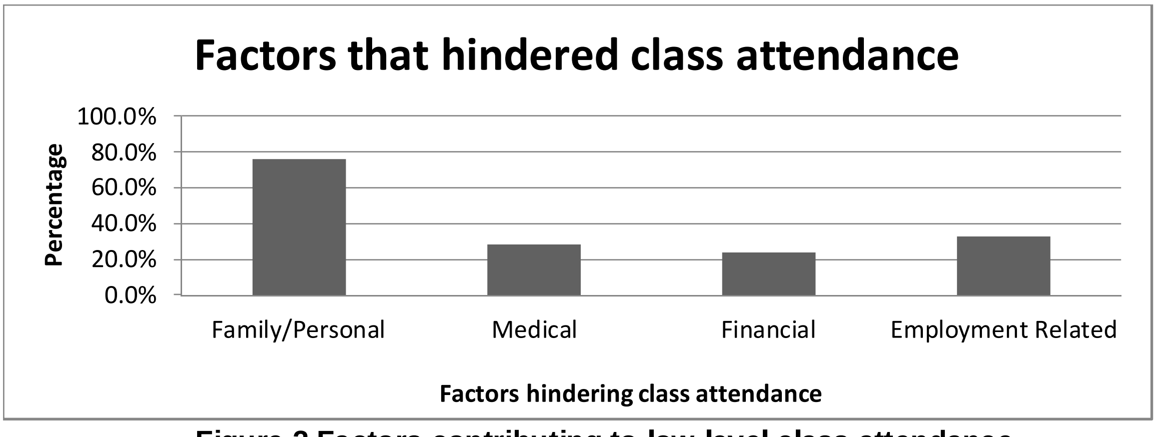

Figure 2 Factors contributing to low level class attendance

When asked whether these students gained as much depth of knowledge, understanding and skill compared to those who regularly attended, 66.7% of those surveyed claimed that they did with 38.9% stating lower attendance may have negatively impacted their learning. Student's explanations were mixed from '*Half the reason I did not attend is because I felt that I already knew most of the information'* to '*The students who went regularly got a lot more out of the experience; however, I also believe a lot of those students needed STEPS more than I did'.* Another student's comment shows that he felt he had the option to choose the courses he wanted to attend: '*I only attended internal classes that I thought would be extremely beneficial to my learning'.* One student, challenged by a mental health issue, stated that *'even though I didn't always feel good for class, I still spent a majority of the time studying at home and I felt I understood it better at home because my anxiety from people wasn't distracting me. In class I spent most of my time trying to control my anxiety so not much sunk in'.* However, class attendance does not automatically mean that those students are keeping up with their workload as one student identified. '*I still kept up to date at home, yet when I went to my classes there were still a few people who hadn't completed their work and they had been attending class.'*

When asked if their attendance would improve if it were a mandatory requirement for them to attend 80% of classes, 56% stated yes and 44% stated no. Some students raised concerns over a mandatory requirement with comments *'Don't make it mandatory!!! On top of study, work and other responsibilities, sometimes I just can't make it'*. Others were in support, stating '*I think if a person makes a commitment to do a course then they need to be there for all classes or what's the point in enrolling in something if you not going to turn up. You are taking another person's privilege to learn'.* This thought was reflected in a number of comments such as*: 'If attendance is compulsory and the will to achieve is there, then you are more likely to do what needs to be done to get to where you want to be'.* However, Jessup-Anger (2011) suggests that non-attendance may be related to difficulties coping psychologically or even with the content, processes and schedules associate with their studies. Therefore, this hard line approach may not be the answer to developing the intrinsic motivation that is hoped the students will develop.

Discussion

This research has identified a strong statistical relationship between high attendance rates and a pass grade and low attendance rates correlate strongly with a fail grade. Additionally, students with high attendance rates in the survey also confirm that they benefit greatly from attending face to face classes and they believe it is a vital aspect of gaining a quality education. Elements recorded to be most vital to ensure student engagement positioned lecturer support most highly with a rating of 93% on the Likert scale, course content 88%, and lecturer teaching styles 88%. Numerous comments captured in the online survey support this: *'Lecturers' teaching styles were relaxed, engaging and interactive, which is extremely good! I cannot stress this enough'*. Participants also valued the fact that '*lecturers have experience not just with information but with the right thing to say for the penny to drop for the student and … This experience is gained from years of classroom teaching and reflection'*.

It is clear that quality teaching practices which include engaging andragogical approaches, reflective practices, and perceived ongoing support are vital to engage the students and develop autonomy. Fjortoft (2005) found that teaching effectiveness was a positive indicator of higher levels of attendance and that student's appreciated effective and engaging teaching practices. Students confirm that '*the support of the lecturer is important, as is the way the lecturer delivers the course information'.* Massingham and Herrington (2006) believe that the teaching and learning environment has changed over the past few decades. More emphasis is now placed on approaches that maximise problem solving, collaboration, discussion and directly relating content to authentic contexts. There is less emphasis on teacher-centred instruction, information, passive and individual learning (2006). Today's students are learning in a constructivist manner and even at this early stage of learning in the enabling environment, today's cohort are simply bored by an instructivist approach.

Autonomy in learning is a valuable characteristic that benefits students in the higher education arena, as these students are intrinsically motivated, control their decision making, take responsibility for the outcomes of their actions, and have self-confidence. This is further supported by Fazey and Fazey (2001) who believe that it is the responsibility of those who structure the learning environment to nurture those students in their care if true autonomy is to be realised . '*I have witnessed a lecturer help a student through positive encouragement to get all their assessment pieces in. That student successfully completed STEPS and went on to further their education, while enjoying their achievements.'* Massingham and Herrington (2006) propose that the answer may lie with the students' willingness and ability to accept responsibility for their own learning. The fact is that many students embark on the STEPS learning journey with a range of educational levels and personal issues and for some, they still revert to former study habits that had not proved successful. Massingham and Herrington (2006) infer that inappropriate attitudes to learning are not innate and invariant, but are learnt and can be un-learnt. Gump (2006, p. 41) proposes that '*students should be encouraged early in their academic careers to develop positive attitudes towards the importance of class attendance, assuming that doing well in school is desired*'.

Conclusion

Findings to date for this research project point to the value of enabling students attending face-to-face classes. Even though there is no clear link between attendance and higher grades, there is a definite correlation of higher level attendance to passing grades and non-attendance to failing grades. The student voice, gleaned through survey comments points to STEPS students placing a high value on learning achieved through face-to-face class contact. The aim of enabling education is to provide a learning opportunity for students who characteristically have a history of failure or a less than ideal experience in a former educational setting. Enabling programs assist students to eliminate the effects of prior negative experience in order to prosper, grow and develop a mindset of success. Students are most likely to achieve this in an enabling program when they are fully present and strongly engaged. The next stage of the research process, the focus group and personal interviews, will provide further clarification of the factors that influence the decision made by internal STEPS students to attend or not attend face-to-face classes.

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