

Traction or transactions - the metrics of engagement

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Abstract

Interest in matters of engagement and retention has meant that issues such as the relevance of comparative data, reliability of the metrics to assess levels of student engagement, and the inter-woven relationship between students, institutions, engagement and retention are attracting considerable attention. The ways in which institutions enact their understanding of engagement defines the student experience in each location yet the lack of clear and reliable metrics results in efforts being under-reported and the impact of these efforts thereby diminished in importance. This presentation offers two engagement models from a practitioner perspective and poses a number of questions for discussion: Are transactional measures of engagement proxy measures for a quality teaching and learning experience? Can institutions measure and report the impact or influence of student engagement efforts? Are engagement efforts with 'at-risk' students little more than 'palliative care'? Are there tools or practices which adequately measure levels of engagement?

Why the interest in Engagement?

Student engagement and retention are issues of significant interest within the higher education sector and the phenomenon is understood through diverse filters and perspectives (Leach and Zepke, 2011). There is a transactional or institutional perspective, which looks to positive student engagement as a conduit for 'load management'. From this perspective, positive engagement, tied to funding considerations, becomes a financial imperative for institutions with the focus on completions and graduation of students. Engagement is therefore assessed in terms of the return on institutional investment in recruitment and enrolment efforts (Coates, 2011, p.1). There is also a perspective that student engagement is a proxy measure for quality education (Coates, 2005; Kuh, 2009) which can be constructed as an outcome of teaching efforts, institutional processes and practices. This perspective relies on a 'one size fits all' set of metrics to validate student and institutional engagement efforts. A transformational perspective of engagement relies on an institutional sense of responsibility to enhance the potential for success of individual students (Zepke and Leach, 2010) with outcomes being considered in terms of the institutional, personal and societal benefits that this affords. The multi-dimensional aspects of this perspective rely on subjective appraisal of efforts and assumes a positive institutional outcome of those efforts.

These perspectives, and others, generate considerable discussion about the role of student engagement and its impact on outcomes. Discussions are largely conducted without the benefit of robust data, which clearly validates the relationship between engagement efforts and the desired or expected outcomes. In this space, an added problem 'is a lack of distinction between the state of engagement, its antecedents and its consequences' (Kahu, 2013, p. 758). There is confusion about what should be measured, what is actually being measured (Kahu, p.762) and the purpose for which these measures are applied.

Earlier this century, attention from the Australian Federal Government, in terms of published comparative data on attrition rates and commissioned studies into attrition in the first year

experience (Krause, 2005), elevated the national focus on the issues of engagement and retention within the higher education sector in Australia.

[In 2004] the Department of Education Science and Training took the unprecedented step of publishing higher education attrition rates for the period 1994 to 2002... Despite much criticism over the limitations of these data and their dependence on institutionally provided statistics which rely on disparate collection and reporting mechanisms, the report signalled the beginning of a number of initiatives designed to monitor and address student attrition in Australian higher education (Krause 2005 p56).

Despite a decade of attention, discussions about engagement in higher education have remained closely bound to the notion that student retention is the key objective of 'engagement'. What is lacking in the reported attrition data, however, is an appreciation for context and identification of 'what works' in particular situations for particular students. Traditionally constructed behavioural approaches, which measure the time and effort students devote to educationally purposeful activities (Coates, 2010) and which are reported through national surveys, are not contextualised to the degree that allows institutions to identify specific activities which have a proven positive impact on the experience of their students. Surveys report data, which exclude factors and features unique to particular student circumstances and so the relationship between participation in purposeful activities and student outcomes has a limited application to diverse and non-traditional student populations. In individual student terms, engagement may be perceived as a means to positively strengthen the student experience to enable individual successes measured in part by retention and progression rates, pass rates, test scores and time taken to completion of studies. The subjectivity around what constitutes 'student success', however, is problematic, especially within a higher education environment, which promotes broadening the participation of diverse student populations in isolation from an acknowledgement that the traditional progression and graduation trajectories will not be relevant to the experience of many of these students. Most institutions have nuanced approaches to engagement and retention but all institutions are faced with the problem of how to measure and validate their efforts in this space.

Same, Same, but Different.

The University of New England (UNE) and the University of the Sunshine Coast (USC) have applied local responses to meet the particular needs of their student constituencies. UNE has a largely distributed population of students who primarily study in distance education or online modes. Indicators of student engagement (or lack thereof) are situated within enterprise systems such as the student management system, the virtual learning environment and a range of customised e-service systems. This is a mature system, designed to address the conditions relevant to the institution and it is driven by a comprehensive suite of data analytics.

USC, in contrast, primarily offers its students a face-to-face teaching experience and indicators of student engagement rely more heavily on observation, monitoring and tracking of student participation by both academic and professional staff. Little emphasis is placed on system-generated alerts at this stage. This emerging model relies on the manual analysis of data and identification of patterns and trends in student engagement via instruments such as the Starting@USC Toolkit (hereto referred to as *the Toolkit*). First implemented in Semester 1, 2015, the Toolkit is part of a suite of student engagement initiatives focused on

strengthening the first year experiences of students and relies heavily on the voice of the student.

What needs to be measured?

At both UNE and USC the relationship between data collection and purposeful intervention is clear. What is harder to clarify, however, is the impact these have on the student experience. There are no compelling metrics to guide institutions in the evaluation of engagement efforts, despite there being general agreement that certain types of activities significantly contribute to positive student outcomes. Both institutions have a strategized approach to student engagement and student success; each has a structured approach to monitoring and reviewing activity and outcomes but, in both cases, drawing a defensible correlation between effort and impact is challenging. We suggest that this is a concern, which is more broadly shared by practitioners in the sector. It is generally accepted that student success is the *raison d'être* for the work that we do and, as represented by Figure 1 below, student outcomes are generally conceived along a continuum from successful progression on the positive scale to attrition on the negative scale. We know, from institutional data that either positive or negative student outcomes may occur whether or not institutional intervention and supports are present and we know from student feedback that engagement (or lack thereof) can be influenced by diverse types of interactions. What we do not fully understand, however, is how we can measure such things. Should we simply measure the frequency and volume of transactions or can we measure the traction that results, and the eventual outcome, from these transactions?

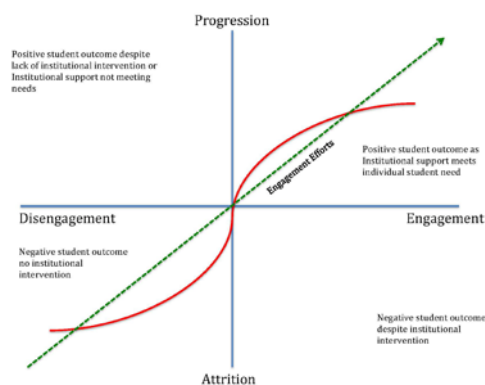


Figure 1. Engagement Transactions and Traction

UNE utilises dynamic measures of student engagement, which are derived from the constructs: (1) 'Happiness', being the self-reported state of the student experience; and (2) 'Wellness' representing the deliberate effort students apply to their study goals. An algorithm which drives the background analytics creates an 'at-risk' rating each day for each student. Students who are identified as 'at-risk' of disengagement are automatically offered case-by-case management (Cx Cm) and the outcomes of the case plans are monitored. Progression into the next period of study is used as the de-facto measure of Cx Cm traction and there are five possible progression outcomes for these students:

- (a) Progression: Student was enrolled in at least one Unit in the next teaching period;
- (b) Completion: Student has graduated or is eligible for graduation;
- (c) Suspension: Student has sought a Leave of Absence or suspended their course;
- (d) Inactive: Student has not enrolled and is therefore not actively managing their studies; and
- (e) Discontinuation: Student has notified UNE of their wish to discontinue studies.

Outcomes, (a), (b), (c) and (e) are considered positive as the student has actively engaged in the process of either continuing or suspending/discontinuing their studies. The Inactive (d), are considered a negative outcome and these provide a source of intelligence for service improvement. Using ‘progression’ as the unit of analysis, the overall impact of intervention is calculated through the comparison of two cohorts: (1) students who are identified as ‘at risk’ and who opt-in for support; and (2) the general cohort (for whom no intervention occurs).

At USC, student engagement and intervention occurs across a number of dimensions and the integrated approach to teaching and non-teaching dimensions presents a challenge when measuring impact of specific activities. The Toolkit is the first explicit engagement activity encountered by students and is issued following acceptance of their offer to study and prior to the start of the semester. The data collected is specifically focused on the individual variables, which influence the commencing student experience and, unlike large-scale surveys, allows the nuances of small populations to be identified and addressed in near-to-real time. It is designed to: develop an institutional shared understanding of the factors influencing the commencing student experience; increase the level of self-efficacy of new students; instill a partnership approach between commencing students and the institution; and demonstrate the USC commitment to closing each feedback loop with students. Following completion of the Toolkit, each student receives a system generated highly personalised report via email showing their responses and providing feedback, advice and information about the resources and support available at USC.

In addition to providing students with a personalised report, their responses are weighted to ascertain a risk profile, which is used by Student Services and Engagement to prioritise follow-up to discuss any concerns held and provide further assistance and advice regarding USC support services. As indicated by the figure below, the Toolkit initiates a planned process of transition for all commencing students and forms the baseline for measuring the impact of engagement efforts during the first semester.

Unlike UNE, the USC engagement strategy is in its early stages and the information collected by the Toolkit provides the starting point to measure several aspects of the student experience throughout the student lifecycle. Analysis of the data against progression, retention, and satisfaction dimensions will inform the development of a learning analytics framework. In developing the Toolkit, consideration was given to existing student satisfaction surveys, which enable triangulation of responses at various stages of the student lifecycle and across experience themes. In this model, both transaction and traction measures are being applied.

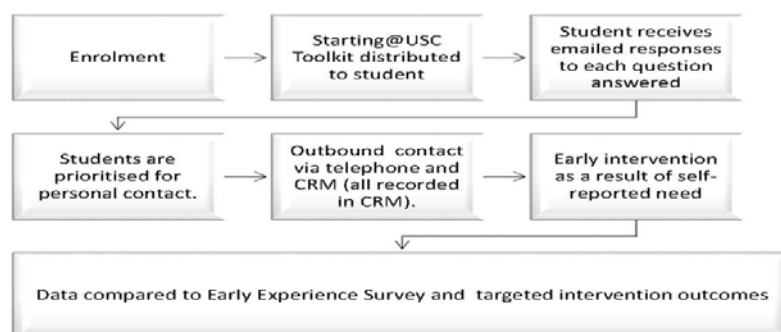


Figure 2. USC Toolkit transactions and traction

The UNE and USC models are presented here as examples of the work in progress in two different settings. The lack of clarity about what to measure and how to measure, however, is likely to apply to most settings. Likewise, sector focus on monitoring engagement as a precursor to retention is expected to increase. This emerging initiatives session, therefore, aims to harness the knowledge and expertise of session participants with the objective of stimulating a discussion around the standardisation of measures which enable engagement efforts to be compared across different contexts. The documented outcomes of this discussion will provide for participants a snapshot of current approaches to measuring the impact of institutional engagement efforts. The questions for discussion include: Are transactional measures, such as how many students are contacted or how many participate in particular activities, proxy measures for a quality teaching and learning experience; Can institutions measure and report the impact or influence of engagement on the grades and successful progression of students to degree completion; Are engagement efforts little more than 'palliative care' in the sense that they improve the quality of the student experience despite the likelihood of a negative outcome for some populations; Are there tools or practices which adequately measure levels of student engagement?

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