Student engagement evidence summary

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Executive summary

This report distils from our review of the student engagement literature some of the key statements that can be made with a reasonable degree of confidence about engagement. Bearing in mind the diversity of understandings of the term “student engagement”, claims should be read and interpreted with caution, extending implications only as far as the context and constraints allow. We categorise these statements into the three dimensions of engagement we identified in that report: student engagement in individual student learning; student engagement with structure and process; student engagement with identity. This report should be read in conjunction with the literature review1, where full references can also be found.

Regarding student engagement in individual student learning:
— student engagement improves outcomes;
— specific features of engagement improve outcomes;
— engagement improves specific desirable outcomes;
— the value of engagement is no longer questioned;
— responsibility for engagement is shared.

Regarding student engagement with structure and process:
— student engagement in university governance benefits student representatives;
— student representation on committees in the UK is generally felt to be effective;
— high-performing institutions share several ‘best practice’ features regarding student engagement in governance;
— high-performing institutions share several ‘best practice’ features regarding student leadership;
— the most commonly reported form of ‘engagement’ of students in the UK is through feedback questionnaires.

Regarding student engagement with identity:
— prior characteristics do not determine whether students will engage;
— engagement benefits all students – but some more than others;
— engagement requires successful transition;
— some students experience engagement negatively.

1. Introduction

1.1 Criteria for inclusion

This document presents an account of the findings of those studies of student engagement founded upon a robust evidential base. These studies are abstracted from the accompanying student engagement literature review, and are presented in more detail here.

We define ‘robust’ in relation to studies that meet these criteria:

1. having clear and researchable questions;
2. using an appropriate methodology to address those questions;
3. presenting evidence of an amount and type to give reasonable confidence in conclusions;
4. having conclusions based on, and limited to, the evidence presented.

In the UK, studies are much more often qualitative in character, based on case studies. Often these fail the test of robustness, set out above. This is not however to detract from their value. Studies of this nature can be extremely illuminative in terms of conceptualising the issues, developing theory in a way which the more positivist Australian and North American studies tend not to do, particularly in elaborating ‘sensitising’ theory and frameworks (Sibeon, 2007). They also indicate appropriate ways forward for research and development in valuable ways. However, we have in the main excluded them from this review as they do not meet our criteria for robustness.

There is a body of work produced in the UK which could be said to address student engagement but traces its roots back to other traditions, such as student feedback, student representation and student approaches to learning, and is less likely to be tagged as ‘student engagement’ in the authors’ keywords. Because of this, the literature flagged as ‘student engagement’ is heavily skewed towards the North American/Australasian tradition. This report confines its attention to those works flagged as concerning student engagement by their authors rather than any publication which substantively addresses issues under our definition.

1.2 Scope of studies included

The student engagement literature review presents a matrix of areas covered by the term ‘student engagement’. Attempting to cover each aspect of that matrix according to the criteria set out above would be a major task, even limiting studies to those meeting the criteria above. In this evidence summary, we have followed the schema
proposed in the student engagement literature review of the three axes along which student engagement literature can be located, viz. individual student learning, structure and process, and identity.

The main focus of the HEA’s interest in student engagement is on students being engaged in shaping the design and delivery of curriculum, and so we have concentrated on presenting evidence related to that objective, insofar as that evidence exists. However, given the relative absence in the literature surveyed on that topic, other aspects (notably “individual student learning”) dominate the evidence reported.

We note from the literature review that the robust evidential base in this area is much stronger in some areas of engagement than others, with strengths especially in the areas of individual student learning – particularly the correlation between student engagement in ‘educationally purposive’ activities and positive outcomes related to grades, persistence and graduation, at a generalised level. There is a very limited amount known with any degree of assurance in the areas of specific, local interventions, such as whether introducing ‘clickers’ (electronic ‘voting’ devices to answer closed-ended questions) in lectures to a large, diverse second-year class would engage students and lead to improved performance and persistence to an extent sufficient to offset the expense of the investment (or at all). Similarly, while several small-scale case studies (which may not be replicable or generalisable) attest to success in teaching innovations to engage students in the classroom via particular tools, techniques or environments, studies involving the students themselves actively engaged in the design and delivery of curriculum are conspicuously absent.

Moreover, the approach taken to studying student engagement in different countries is noticeably diverse. Many Australian studies and those in the United States tend to be founded upon more positivist principles, being quantitative in nature with statistical analysis of data collected in large surveys.

1.3 Health warnings: evidence and practice

There are four good reasons to treat the evidence presented here with some caution.

First, while the studies described in this report meet the criteria above, the evidence and conclusions are time and place specific. Temporally, in each case they

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2 Positivist research aims for objectivity, replicability and freedom from values. In social as well as natural sciences, it foregrounds the testing of hypotheses through empirical observation.
present a snapshot; in general there is a dearth of longitudinal studies of student engagement in any of the domains to which that term applies. In relation to context, the studies are (of course) situated by country, region, institution and sometimes discipline. These have important influences on the practices and their effects studied, so that findings may not be transferred, or completely transferred, to a different context.

According to Kuh (2009b, 314):

… given the increasing diversity of college students today, it is erroneous to presume that what works in one setting for certain students will have the same effects in other settings for different types of students. Because institutional contexts differ, students’ experiences will differ, as will what they get out of college.

For example, Kuh (2009a, 687) cautions that institution-specific analysis of National Survey of Student Engagement (NSSE) data “sometimes produce factor structures different than the five benchmarks or clusters of effective educational practices that NSSE uses to report its findings”, citing Gordon, Ludlum and Hoey (2006) as an example. Similarly, Kuh et al. (2008, 556) warn that:

… simply offering [engaging] programs and practices does not guarantee that they will have the intended effects on student success. Institutional programs and practices must be of high quality, customised to meet the needs of students they are intended to reach, and firmly rooted in a student success-oriented campus culture.

Second, several of the studies described here do not move beyond analysing findings and drawing conclusions from them. Student engagement is generally an area where research interest, particularly funded research, is sparked by a desire for enhancement. Yet many of the recommendations for practice based on the research conducted tend to be general and non-specific: the reader is left to infer how best these might translate into practice in their own situation. It is the researcher, however, who is best placed to make judgements about which direction, and how far, one can travel regarding policy and practice based on their findings. This is a deficiency in this area as in many other substantive areas of educational research. We echo Janet Finch’s comment as long ago as 1988 about the frequent absence of a final section entitled ‘policy recommendations’ in these studies of student engagement. Other studies err in the opposite direction, making recommendations for practice that are innocent of context or situation, assuming that what worked for them would necessarily work in all
other cases and places.

Third, and related to the points above, great care is needed in considering whether and how to apply the evidence presented in these studies and others like them in one's own context. ‘Evidence-based practice’, much lauded in recent years, inherently contains a number of challenges. Contextual differences mean that what works in one place may not work, and may even be counter-productive, in another. We know from numerous evaluation and research studies in different areas of education that the outcomes of a single policy or strategy are very different from place to place (see, for example, Bowe et al., 1992). Fullan and Scott (2009), for example, talk about action based on evidence, but as important is interpretation of that evidence based on good theory and careful thought. Donald Schön warned about the alluring but deceptively simple link between evidence and practices in 1983, making a compelling argument for the necessity of cognitive work at the ground level by reflective practitioners. However, to do this work they need tools for thinking. Action for change needs to be \textit{both} evidentially and theoretically informed. Here we present only evidence.

Fourth, as noted above, research into student learning is often motivated by a desire for change; specifically the enhancement of student learning. Presenting evidence is only one dimension of this. As we just noted, tools for thinking such as theory and concepts are important too; however, in considering enhancement issues, so is good thinking about how to bring about change. A good theory of change and a subtle understanding of how research findings can be most effectively be used in any given context, especially in strategy development and implementation approaches, are crucial if effective change is to be invoked.
2. Presentation of evidential base

From the literature, we can assert with reasonable confidence, the following:

2.1 Engagement and individual student learning

2.1.1 Student engagement improves outcomes

The National Survey of Student Engagement – pioneered in the US and adopted in Canada, modified for use in Australia and New Zealand (as AUSSE) and South Africa (as SASSE), and currently being piloted in China – rests upon a body of knowledge built up since the mid-1980s establishing correlation between students' investment of time, effort and interest in a range of educationally orientated activities, and favourable outcomes such as increased performance, persistence and satisfaction.

Astin’s 1984 paper dealt with student involvement in their own learning, a concept that was subsequently expanded to incorporate earlier aspects such as ‘quality of effort’ (Pace, 1980, 1984) and ‘time-on-task’ (Merwin, 1969), as well as later work (Pace, 1990; Chickering and Gamson, 1987) on effective practices in teaching and learning, emerging as ‘student engagement’ (Kuh et al., 1991, 1997b; Kuh, 2004, 2008a; Pascarella and Terenzini, 1991, 2005; Ewell and Jones, 1996; Pace, 1995; Tinto, 1993; Coates, 2006).

2.1.2 Specific features of engagement improve outcomes

Specific aspects of engagement, such as involvement, time on task, and quality of effort, have repeatedly been linked to positive outcomes (see Astin, 1984, 1999; Braxton, Milem and Sullivan, 2000; Goodsell, Maher and Tinto, 1992; Feldman and Newcomb, 1969; Kuh, 1995; Kuh et al., 2005; Kuh, Pace and Vesper, 1997; Kuh, Whitt and Strange, 1989; LaNasa, Cabrera and Trangsrud, 2009; Pace, 1990, 1995; Pascarella, 1985; Pascarella and Terenzini, 1991, 2005; Pike, 2006a, 2006b; Tinto, 1987, 1993). Chickering and Gamson (1987) summarised the evidence into seven effective practices in undergraduate teaching and learning, viz.:

— student-staff contact;
— active learning;
— prompt feedback;
— time on task;
— high expectations;
— respect for diverse learning styles;
— co-operation among students.
**Academic challenge** is central to the engagement construct (NSSE, 2002, 10) and some disciplines are experienced as more challenging than others (see Pascarella, 2001; Coates and Ainley, 2007; Marks and Coates 2007). **Interacting with staff** has been shown to have a powerful impact on learning (Pascarella and Terenzini, 1991, 2005; Astin, 1993; Kuh and Hu 2001; Hausmann et al., 2007; Cuseo, 2007), especially when it takes place **outside of the classroom** and responds to individual student needs (Kuh and Hu, 2001; Chickering and Reisser, 1993; Pascarella and Terenzini, 1991). Participation in **extra-curricular activities** has also been shown to be positively correlated to improved outcomes (Pascarella and Terenzini, 1991; McInnis et al., 2001, 2005; Scott, 2006).

**Living on campus** has been positively correlated to engagement (Chickering, 1975; Pike and Kuh, 2005; Terenzini et al., 1996) and participating in a **learning community** has been linked to substantial increases in engagement (Indiana University Center for Postsecondary Research, 2002; Pike, 1999; Pike et al., 1997; Zhao and Ku, 2004). **Interactions with diverse peers** (in and out of the classroom) has been positively correlated with a range of positive outcomes, both personal and social (Antonio et al., 2004; Chang, Astin and Kim, 2004; Chang et al., 2006; Gurin et al. 2002; Harper and Antonio, 2008; Hu and Kuh, 2003; Pascarella et al., 1996; Villalpando, 2002).

### 2.1.3 Engagement improves specific desirable outcomes

Studies have consistently shown correlations between engagement and improvements in specific desirable outcomes, including:

- **general abilities and critical thinking** (Endo and Harpel, 1982; Gellin, 2003; Kuh, 2003; Kuh, Hu and Vesper, 1997; Pascarella et al., 1983; Pascarella et al., 1996; Pike, 1999, 2000; Pike and Killian, 2001; Pike, Kuh and Gonyea, 2003; Shulman, 2002; Terenzini, Pascarella and Bliming, 1996);
- **practical competence and skills transferability** (Kuh, 1993, 1995);
- **cognitive development** (Anaya, 1996; Astin, 1993; Baxter Magolda, 1992; Kuh, 1993, 1995; Pascarella, Seifert and Blaich 2010; Pascarella and Terenzini, 2005);
- **self-esteem, psychosocial development, productive racial and gender identity formation** (Bandura et al., 2000; Chickering and Reisser, 1993; Evans, Forney and Guido-DiBrito, 1998; Harper, 2004; Harper and Quaye, 2007; Torres, Howard-Hamilton and Cooper, 2003);
- **moral and ethical development** (Evans, 1987; Jones and Watt, 1999; Liddell and Davis, 1996; Rest, 1993);
- **student satisfaction** (Kuh and Vesper, 1997; Kuh et al., 2005; Kuh et al., 2007);
- **accrual of social capital** (Harper, 2008);
— improved grades (Astin, 1977, 1993; Indiana University Center for Postsecondary Research, 2002; Pike, Schroeder and Berry, 1997; Tross et al., 2000);
— persistence (Astin, 1975, 1984, 1993; Bean, 2005; Berger and Milem, 1999; Braxton, Milem and Sullivan, 2000; Bridges et al., 2005; Milem and Berger, 1997; Pascarella and Terenzini, 2005; Peltier, Laden and Matranga, 1999; Pike et al., 1997; Stage and Hossler, 2000; Swail, Redd and Perna, 2003; Tinto, 1993, 2000, 2005).

2.1.4 The value of engagement is no longer questioned
Since the publication in 1984 of the (US) National Institute of Education’s Involvement in Learning Report, according to Kuh (2009a, 684):

… virtually every report … emphasized to varying degrees the important link between student engagement and desired outcomes of college.


2.1.5 Responsibility for engagement is shared
While engagement ultimately requires the agency of the individual student (Krause and Coates, 2008; Hu and Kuh, 2001), the role of the institution (Kuh, 2009; Kuh and Whitt, 1988; Coates, 2005; Blackburn and Lawrence, 1995; Fairweather, 1996, 2002; Harper and Quaye, 2009a), teaching staff (Umbach and Wawrzynski, 2005; Astin, 1993; Kezar, 1999; Davis and Murrell, 1993; Quaye and Harper, 2007) and other staff, such as student affairs professionals (Kuh, 2009a) has also been demonstrated. This is summed up by Coates (2005, 26):

The concept of student engagement is based on the constructivist assumption that learning is influenced by how an individual participates in educationally purposeful activities. Learning is seen as a ‘joint proposition’ … however, which also depends on institutions and staff providing students with the conditions, opportunities and expectations to become involved. However, individual learners are ultimately the agents in discussions of engagement.
2.2 Engagement and structure/process

Literature on engagement in structure and process was very scant, and compelling evidence was hard to come by. That which was found was concerned with student engagement in governance and leadership, rather than student involvement in shaping the design and delivery of curriculum in any direct sense — beyond student feedback questionnaires, which, as described by Kuh (2009), themselves constitute a form of engagement.

2.2.1 Student engagement in university governance benefits student representatives

Individual students benefit through their engagement as student representatives (Cress et al., 2001; Kuh, 1994; Kuh and Lund, 1994; Lizzio and Wilson, 2009; Terenzini, Pascarella and Blimling, 1996). Institutions also benefit (Kezar, 2005; Magolda, 2005; Little et al., 2009), as does society more broadly (Teune, 2001; Colby et al., 2003; Sumner, 2008; Thornton and Jaeger, 2007; Astin, 1997).

2.2.2 Student representation on committees in the UK is generally felt to be effective

UK-based literature on student engagement through representation is typically not tagged as ‘student engagement’ by its authors, resulting in a paucity of such literature falling within the scope of this review.

The CHERI study on student engagement in England found student representation on university committees to be near universal, usually through students’ union officers. Student representation at faculty/school level, and at programme level, is also common, although much variation exists about operation at these levels. Institutions consider student representation to be reasonably or very effective, while students’ unions consider it less so. Institutions consider student representation to be more effective at programme and school level than at faculty level (Little et al., 2009).

2.2.3 High-performing institutions share several ‘best practice’ features regarding student engagement in governance

Kezar (2005), drawing on NSSE data of high-performing institutions, distilled several ‘best practice’ tactics to foster shared leadership and collaboration between administrators, students and staff:

— develop a shared understanding of institutional mission and philosophy;
— use celebrations to engage the campus community in conversations about student success;
— advocate for shared governance;
— ensure that students have a prominent voice in campus governance;
— alter structures to encourage cross-function activities focused on student success;
— tighten the philosophical and operational links between academic and student affairs;
— empower and support staff leadership;
— create and capitalise on cross-function, boundary-spanning activities.

2.2.4 High-performing institutions share several ‘best practice’ features regarding student leadership

Similarly, Magolda (2005) distilled ‘best practice’ guidelines from NSSE data of best-performing institutions, relating to student leadership:
— understand and embrace your organisation’s mission, history and culture;
— collaboration is essential;
— improve group performance by doing less, better;
— focus on creating win-win scenarios for the organisational members and the students they serve;
— strengthen the organisation by strengthening its members;
— celebrate important events, transitions and passages.

2.2.5 The most commonly reported form of ‘engagement’ of students in the UK is through feedback questionnaires

The CHERI study found a variety of methods existed for the administering of student feedback questionnaires at institutions in England. Limited evidence was found that student leadership in investigating specific issues affecting students’ learning experience led to greater student engagement (Little et al., 2009).

2.3 Engagement and identity

2.3.1 Prior characteristics do not determine whether students will engage

Studies have been unable to produce consistent relationships between characteristics that students bring with them to their studies – such as gender, ethnicity or ability levels on entering HE – and the extent to which they engage as students (see Bauer and Liang, 2003; Endo and Harpel, 1982; Hu and Kuh, 2002; Indiana University Center for Postsecondary Research, 2002; Iverson, Pascarella and Terenzini, 1984; Kuh et al., 2000; Pike, 1999, 2000; Pike and Killian, 2001; Pike et al., 1997), and the relationships that were found were very weak (Pike, 1999, 2000; Pike and Killian, 2001; Pike et al., 2003).
2.3.2 Engagement benefits all students — but some more than others

Engagement factors measured by survey instruments such as NSSE and AUSSE include time spent on campus and participation in extra-mural activities, such as membership of university sports teams or clubs and societies, leading to concerns from some (see Bensimon, 2007, Harper and Quaye, 2009) about whether the assumptions underlying the conceptualisation of engagement apply equally to ‘non-traditional’ students — those who are not full-time, residential, straight-from-school aged students from dominant racial/ethnic groups and historically advantaged socio-economic classes.

However, empirical research has shown the opposite: while all students benefit from engagement, some students benefit more than others (Pascarella and Terenzini, 2005). Studies have revealed the compensatory effect of engagement — meaning that those students who are least prepared academically benefit more from engagement than those who are most prepared, in relation to effects on grades and persistence (Carini, Kuh and Klein, 2006; Cruce et al., 2006; Kuh, 2009b; Kuh et al., 2008; NSSE, 2007; Pascarella and Terenzini, 2005).

2.3.3 Engagement requires successful transition

‘Becoming a student’ and developing an identity as a student is a prerequisite for successful engagement (Crossan et al., 2003; Gallacher et al., 2002; Jackson, 2003; Kuh et al., 2005; Krause and Coates, 2008) and developing a sense of belonging to the university community (Zhao and Kuh, 2004; Pascarella and Terenzini, 2005; Krause, 2005, 2006; Krause et al., 2005). Many students from ‘non-traditional’ backgrounds experience ‘culture shock’ on entering university (Griffiths, Winstanley and Gabriel, 2005; Forsyth and Furlong, 2003; Krause and Coates, 2008; Christie et al., 2008). They experience tensions between normative, essentialised notions of student identity and their experiences as ‘non-traditional’ students (Christie, Munro and Wager, 2005; Christie et al., 2008; Thomas and Quinn, 2006; Hughes, 2002; Waller, 2006). Bensimon (2009, xxii-xxiii) describes how:

… productive engagement is an important means by which students develop feelings about their peers, professors and institutions that give them a sense of connectedness, affiliation, and belonging, while simultaneously offering rich opportunities for learning and development.

Thus, for students struggling with transition, engagement in those activities strongly correlated with positive educational outcomes can facilitate a sense of belonging and a positive student identity (Cabrera et al., 1999; Kuh, Palmer and Kish, 2003; Kuh et al., 2005).
2.3.4 Some students experience engagement negatively

Some students, particularly 'non-traditional' students, experience university culture as foreign, alienating or hostile (Krause, 2005, 2006; Forsyth and Furlong, 2003; Gallego and Hollingsworth, 2000; MacKinnon and Manathunga, 2003; Ten Yew and Farrell, 2001). Despite demonstrating high levels of engagement against measures of participation, they still feel overwhelmed and isolated (Forsyth and Furlong, 2003; Krause, 2005, 2006). These groups include:

- international students (Anderson et al., 2009);
- students with disabilities (Nichols and Quaye, 2009);
- LGBTQ [Lesbian, Gay, Bisexual, Transgender and Questioning] students (Schueler, Hoffman and Peterson, 2009);
- students from minority religious groups (Mahaffey and Smith, 2009);
- racial/ethnic minority students in different contexts (Harper, 2009; Quaye, Tambascia and Talesh, 2009; Hawkins and Larabee, 2009; Sallee et al., 2009);
- gender minority students in different contexts (Rypisi, Malcolm and Kim 2009; Harris and Lester, 2009);
- commuter/part-time/transfer/returning students (Silverman, Aliabadi and Stiles 2009);
- low-income, first-generation students (Gupton et al., 2009).

Campuses in the US are reportedly becoming increasingly segregated (Hurtado et al., 1999), with minority student groups reporting little interaction between themselves and dominant groupings and little attention on improving climate (Ancis, Sedlacek and Mohr, 2000; Cabrera et al., 1999; Harper and Hurtado, 2007; Hurtado, 1992). Hostile climates reduce ‘non-traditional' students’ chances of engagement, persistence or success (Harper and Quaye, 2009a).

Thus, Harper and Quaye (2009a, 3) note:

We are persuaded by a large volume of empirical evidence that confirms that strategizing ways to increase the engagement of various student populations, especially those for whom engagement is known to be problematic, is a worthwhile endeavour. The gains and outcomes are too robust to leave to chance, and social justice is unlikely to ensue if some students come to enjoy the beneficial by-products of engagement but others to not.
Conclusion

A substantial, robust body of evidence exists to support assertions that individual student engagement in educationally purposive activities leads to more favourable educational outcomes. Despite the rhetoric on the (uncontested) value of student engagement for individual students, their institutions, the higher education sector and society more generally, very little evidence can be found in the literature of students being engaged in issues beyond their own learning, as individuals, in any direct way. Students are typically presented as the customers of engagement, rather than co-authors. Where students are involved in shaping the design and delivery of curriculum, it tends mostly to be indirectly through feedback surveys, often with problems reported around closing the feedback loop. Student participation on programme or departmental committees has been found in several institutions in England, but great variability exists at this level and there is little evidence of the nature, function or quality of this form of engagement.

Engagement was found to be particularly beneficial to those groups of students least prepared for higher education, although these students were more likely to view engagement as a negative process owing to feelings of isolation, alienation or being overwhelmed.

The ‘student engagement’ construct enjoys widespread uncritical acceptance across educational structures and has become pervasive in reports in several countries, particularly the US and Australia.

Recommendations for further study include: UK-based longitudinal, cross-institution studies (possibly by discipline/discipline cluster) to glean a picture of student engagement against which to frame case studies; more in-depth study to understand causation of observed phenomena such as the compensatory effect of engagement or the conflicting evidence surrounding expenditure and engagement; and studies of direct student engagement in the shaping of design and delivery of curriculum.
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