Changing Institutional Cultures to Improve Student Outcomes: Emerging Themes from the Literature

Linda Leach
Massey University at Wellington
New Zealand

Nick Zepke
Massey University at Wellington
New Zealand

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Tertiary institutions in New Zealand, as elsewhere, are under pressure to improve student outcomes such as retention, persistence and graduation (Tertiary Education Advisory Commission, 2001a; 2001b; Ministry of Education, 2002). The reasons for early student withdrawal have been well researched in the United States, Australia and the United Kingdom (Tinto, 1975, 1988, 1993; Pascarella & Terenzini, 1991; Astin, 1993, 1997; Yorke, 1999; McInnis et al, 2000). In 2002, the New Zealand Ministry of Education commissioned a study into improving student outcomes. Our study found two different discourses (Prebble et al, 2003; Zepke et al, 2003). One predominates, centring on what institutions can do to fit students into their existing cultures. Tinto's work is at the heart of this discourse. The study also discerned an emerging discourse challenging Tinto's model (Braxton, 2000). Rather than require students to fit the existing institutional culture, it suggests that cultures be adapted to better fit the needs of increasingly diverse students. This paper has three sections. First we describe how we conducted the study. Second we discuss the dominant discourse and eleven propositions for practice that arise from it. Finally we explore two propositions that synthesise research from the emerging discourse.

Method

We adapted Slavin's (1986) best evidence synthesis method that was designed to avoid the constraints of meta-analyses and the haphazardness of unstructured literature reviews. Key features of best evidence syntheses are: criteria for inclusion of articles and classification of data used; a search for relevant, unpublished material; and estimates of the effects of interventions. In a first stage, the synthesis gathers as many studies as possible within broadly defined boundaries. Inclusion criteria are then developed and applied to the located studies. In a second stage each included study is critically reviewed in the light of the inclusion criteria (Cassidy et al, nd).

We employed a qualified librarian to conduct searches on library databases and the Internet. Later a special search was conducted for New Zealand material. The sole criterion for inclusion was that the item reported an empirical study of student outcomes concerning teacher/educator or learning environment variables. This sweep located several major international syntheses (Tinto, 1975, 1988, 1993; Pascarella & Terenzini, 1991; Astin, 1993, 1997; McInnis et al, 2000). These were so comprehensive that we were able to limit subsequent searches to studies conducted after 1990.

Our early reading enabled us to develop more rigorous inclusion criteria. We identified two kinds: content and process criteria. Content criteria identified the studies to be included in our synthesis. We chose studies reporting institutional support mechanisms that improved student retention, persistence and completion. Our content inclusion criteria are shown in Figure 1.

ENVIRONMENTAL STUDENT SUPPORT INFLUENCES ON STUDENT OUTCOMES		
Institutional practices that:	Support Social/Emotional Needs	Support Academic Needs
Aid Integration	Enrolment processes Social networks	Pre-enrolment advice Academic counselling Student/teacher relationships Quality of teaching Academic Success (GPA)
	Orientation/Induction Learning communities	
Provide Services	Health & counselling Advisory services Recreational services Campus facilities Placement services	Supplemental Instruction
	Peer tutoring Mentoring	
Foster Supportive Learning Climates	Absence of discrimination Feeling safe Valuing minorities	Learning preferences
	Valuing cultural capital Fairness	

Figure 1: Matrix for content criteria

The vertical dimension of the matrix focuses on social and academic student needs variables. The horizontal dimension identifies three ways institutional policies and actions meet these needs.

Our second set of inclusion criteria assessed research processes. They tested for rigour and richness. First, we selected five types of studies to be synthesised. The first was multi-institutional and quantitative using large samples. The second was quantitative within single institutions. The third produced qualitative data from multiple institutions. The fourth was also qualitative, generally using interview data in a single institution. The fifth contained work that was theoretical in intent but synthesised major quantitative studies.

Using a mixture of studies was both necessary and deliberate. We could not have achieved a best evidence synthesis relying on large scale, multi-institutional studies. There were not enough of them to synthesise with confidence. Then there is evidence that multi-institutional studies deliver different results to the same research questions than single institution studies (Braxton & Lien, 2000). Moreover, the evidence produced from quantitative studies tends to be explanatory and general. The qualitative studies enabled us to understand the finer grained reasons for outcomes. Consequently we did not always give primary weight to quantitative studies. We emphasised qualitative results where we felt these led to a better understanding of outcomes.

Second, we selected studies according to the rigour of research methods used. Figure 2 shows the methods selected as fit for the research purpose.

	Quantitative	***Qualitative***
Multi-institutions	Questionnaire surveys Autopsy studies	Case studies Focus groups Telephone interviews
Single institution	Questionnaire surveys Telephone surveys Autopsy studies	Case study Focus groups Telephone interviews Face-to-face interviews

Figure 2: Inclusion criteria for research methods

Our third process criterion concerned the rigour of the study. For quantitative studies we distinguished between those using descriptive and inferential statistics, preferring those that tested for correlations, significance and, where possible, employed control groups. For qualitative studies we selected those that used a clearly conceptualised sampling design and semi-structured data gathering.

Related to rigour were issues about size of sample – our fourth criterion. We excluded studies that researched individual classes or sub-groups of institutions, preferring larger-scale studies or those that provided in-depth data about smaller groups. In our report to the Ministry we included information about all our process criteria on each included study, using a template designed for the purpose on Procite, a bibliographic database.

We now describe our findings. In the next section we summarise the evidence for the dominant discourse. In the final section we synthesise in greater depth the evidence from the emerging discourse.

The dominant discourse

Major studies published over decades now have relied on Tinto's (1975, 1988, 1993) integrative theory and series of models of student departure. These have achieved a dominance that has been called almost hegemonic (Braxton, 2000). Tinto's 1993 model of student departure has six progressive phases. Two of these focus on students' social and academic integration and provide the basis of most of the student retention research. From our synthesis we identified 11 propositions for practice. We now outline these.

1 Institutional behaviours, environment and processes are welcoming and efficient
Overwhelmingly the studies support the idea that student outcomes are enhanced where students are assimilated into the institutional culture. They highlight, for example, the clarity and accessibility of information about the institution and programmes, the impact of enrolment processes, effectiveness of advice about course changes, the flexibility of timetabling and ease of early contact between institution and students.

2 The institution provides opportunities for students to establish social networks
Evidence suggests that outcomes improve where institutions make personal contact outside classrooms and show commitment to students' total well-being. Examples include facilitating social networks and promoting social integration through special social programmes such as clubs, cultural groups and sporting activities. Another perspective, while supporting the

institution's role in social integration, is more cautionary and warns that too much social activity can negatively affect academic outcomes.

3 Academic counselling and pre-enrolment advice are readily available to ensure that students enrol into appropriate programmes and papers

Studies highlight the positive effects of academic counselling and pre-enrolment advice. Students often make wrong choices about courses or even the university. The studies show that readily available pre-enrolment advice and academic counselling is likely to assist retention and improve student outcomes.

4 Teachers are approachable and available for academic discussions

A recurring theme is that outcomes improve where students have regular and meaningful contact with teachers, both inside and outside the classroom. We found three themes to support the proposition. The first highlights the importance of teachers nurturing students. The second suggests that teachers have a mentoring role away from their teaching. The third examines the role of teachers in learning communities.

5 Students experience good quality teaching and manageable workloads

Students expect good quality teaching that respects students, is fair and unbiased, culturally sensitive, caring and motivational. Contact with the teacher needs to be regular, sustained and positive. Teaching methods need to suit students' levels of independence. Student workload is a key factor in influencing students' outcomes.

6 Orientation/induction programmes are provided to facilitate both social and academic integration

Studies show that orientation programmes help overcome problems with course selection and induction and improve academic outcomes. Evidence is very strong that orientation programmes provide anticipatory socialization, whereby individuals come to anticipate correctly the values, norms and behaviours they will encounter at university.

7 Students working in academic learning communities have good outcomes

Academic learning communities range from combining courses, creating cohort groups within larger classes, to institutions deliberately creating a homogeneous ethos in relation to ethnicity, gender, domicile or religion. In one major American study a sense of community was one of only four significant persistence factors identified by students. Two large United Kingdom studies also found that the absence of opportunities to learn collaboratively influenced decisions to leave.

8 A comprehensive range of institutional services and facilities is available

Studies reported on the impact of a wide range of institutional services and facilities such as child care, pastoral/religious care, English language support, financial aid, counselling, health service, library support, international students' assistance, women's resource centre, student housing and employment services, study skills assistance, student clubs, sports facilities and cafeteria. The results create a strong argument that providing institutional services facilitates positive student outcomes. However, a note of caution is sounded in studies that show few students use these services.

9 Supplemental Instruction (SI) is provided

SI offers a specific introduction to subjects. It is not remedial, as it identifies high-risk *subjects*, not high risk *students;* integrates the development of study skills within an academic

subject; is voluntary and open to all students; has SI leaders who are trained in teaching and learning theory and who facilitate group study and problem solving. Studies we found all report that the SI programmes have positive effects on student outcomes.

10 Peer tutoring and mentoring services are provided

Peer contributions to both academic and social integration are important in achieving positive student outcomes. Indeed some studies report that the strongest single source of influence on cognitive and affective development is the student's peer group. Peer group tutoring and mentoring emerge as useful tools in the integration process, for example, in orientation programmes, Supplemental Instruction and learning communities.

11 There is an absence of discrimination on campus, so students feel valued, fairly treated and safe

While discrimination was indirectly linked to students' outcomes, it often emerged as one factor in retention. Discrimination may be disguised, for example, as 'social isolation', 'alienation' and 'difficulty making friends', even 'feeling homesick'. Studies show that the climate created within an institution impacts on student outcomes. As student diversity increases institutions must create climates that welcome, accept, respect, affirm and value diversity, creating 'an accepting culture' or 'ethos'.

Underpinning these 11 propositions is an assimilationist view – that students should adapt to the institution where they enrol, learning to do things 'as they are done around here' in order to succeed. This assumption is challenged in the emerging discourse, which we now describe.

The emerging discourse

While many aspects of Tinto's integration model have been validated, some results have been uneven. A number of studies have tested some of his constructs (Cabrera et al, 1992; Braxton, Vesper & Hossler, 1995; Padilla et al, 1997; Braxton & Lien, 2000). Brunsden et al (2000), using path analysis, found that his integrationist explanations may not be the most appropriate for attrition research. McKenzie & Schweitzer (2001) found that students who indicated high levels of integration tended to have lower grade point averages.

There have also been critiques. Braxton (2000) suggests critics fall into two broad groups – those who wish to revise and improve Tinto's theories (Cabrera et al, 1992) and those who propose entirely new theoretical directions (Braxton, 2000; Berger, 2001-2002). In our view, those revising Tinto's model retain his integrative intent. This results in an assimilation process, fitting the student to the institution. However, those developing new theoretical directions modify integration to include adaptation, where institutions change to accommodate diverse students. Tierney (2000, p.219) captures this idea:

> Rather than a model that assumes that students must fit into what is often an alien culture and that they leave their own cultures, I argue the opposite. The challenge is to develop ways in which an individual's identity is affirmed, honored, and incorporated into the organization's culture.

In this emerging discourse student departure is influenced by their perceptions of how well their cultural attributes are valued, accommodated and how differences between their cultures of origin and immersion are bridged (Cabrera et al, 1999; Walker, 2000; Thomas, 2002). In

recognition of this emerging discourse we have synthesised two further propositions for practice.

12 Institutional processes cater for diversity of learning preferences

McInnis and his co-authors have noted major changes in the student experience (1995, 2000). Students now expect institutions to fit their lives rather than vice versa. These authors noted, for example, that increased employment among students and the influence of distance learning technologies have led to major changes in the ways students engage with and perceive their university experience. They argue that institutions need to change how they manage the undergraduate experience, to enable students to remain connected to their lives outside the university. Heverly (1999) found that, to enhance retention, institutions must change their processes so that financial services, procedures for adding and changing courses and academic advice are easily available and offered in non-bureaucratic ways. Padilla et al (1997) investigated ways to help minority students achieve better outcomes. They identified the influence of two kinds of knowledge on student outcomes. The first was the theoretical knowledge taught in formal programmes; the second was local, heuristic knowledge learned experientially and culturally. They concluded that institutions should do more to identify, honour and provide for the acquisition of local, heuristic knowledge.

Some studies also suggested that where institutions try to match students' learning preferences outcomes might be improved (Lizzio et al, 2002; Laing & Robinson, 2003). Garton et al (2000) found that where teaching catered for field-independent learning style preferences, by using self-direction for problem solving, retention was improved. Rabbitt (1999), Sanchez (2000) and Szelenyi (2001) found that minority students exhibited different motivational and learning strategies and that these should be catered for. These latter studies suggest a subtext of academic change, integrating collaborative learning and problem solving, reducing reliance on transmission modes of teaching and catering for the specific learning preferences of particular groups.

13 The institutional culture, social and academic, welcomes diverse cultural capital and adapts to diverse students' needs

Institutional culture refers to "… the collective, mutually shaping patterns of norms, values, practices, beliefs and assumptions that guide the behavior of individuals and groups … and provide a frame of reference within which to interpret the meaning of events and actions on and off campus" (Kuh & Love, 2000, p.198). Cultural capital is one type of class resource base, a symbolic rather than material resource that includes, for example, informal interpersonal skills, habits, manners, linguistics, educational credentials, lifestyle preferences (Berger, 2000) conceptual knowledge, particular speech patterns and culturally specific learning tools (Sanchez, 2000).

Tertiary students arrive at an institution with particular cultural capital. Where this is valued and fits with the existing institutional culture they are more likely to be a "fish in water" (Thomas, 2002, p.431) and to achieve. Where their cultural practices are deemed inappropriate, incongruent (Berger, 2000) deficient or invalidated (Sanchez, 2000), they are more likely to experience acculturative stress (Saenz, 1999) and to leave. "[T]hose students who lack the requisite cultural capital may have a hard time or be unable to fully integrate because their frame of reference is just too different from the organizational habitus and the habitus of the dominant peer group on campus" (Berger, 2000, p.108).

The integration model suggests that, in order to succeed, minority students should abandon their cultural background and adapt to the institutional culture. Walker (2000) reported that many aboriginal students found their experience was assimilationist. This often led them to resist the institutional culture and programme content, to achieve their educational goals without compromising their cultural value or identity. Bennett & Flett (2001) found that a high cultural identity as Maori mediated the impact of academic problems and helped Maori students maintain their educational outcomes. They also suggest that this identity may give students access to a network of social support that can buffer them against the detrimental effects of stress and problems. Rendon et al (2000) argue that students can be simultaneously socialised in two different cultures and that dual socialisation is possible when the overlap between two cultures is fostered. This is an institution's responsibility in the emerging discourse – to support students "to transit between two cultures" (Rendon et al, 2000, p.137).

Conclusion

The Tinto assimilationist model is still predominant. The institution's role is to assimilate students, socially and academically, to foster their academic success. Major research studies conducted in a number of countries support this view. But a new discourse is emerging in recent theoretical and research literature. The assimilationist model is being challenged and alternative processes are proposed. Central to this emerging view is the idea that students should maintain their identity in their culture of origin, retain their social networks outside the institution, have their cultural capital valued by the institution and experience learning that fits with their preferences – in administrative, social and academic contexts. Content, teaching methods and assessment, for example, should reflect the diversity of people enrolled in the course. This requires significant adaptation to institutional cultures. These changes will be played out in each contact students have with the organisation and in all aspects of student support. These institutional changes will assist students to move between their 'cultures of origin' and their institutional 'culture of immersion' with less culture loss or culture shock (Rendon et al, 2000). The foreshadowed outcome of this institutional change is better student retention, persistence and achievement.

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