

Approaches to First Year Transition Pedagogy in Australian Business Schools

Dr Anja Morton
Faculty of Business and Law
Southern Cross University

The need to implement first year transition pedagogy in higher education has become more urgent with the imminent introduction of government funding models in Australia that are based on the quality of students' first year experience. This paper categorises and reviews the main ways in which first year transition pedagogies have been implemented in undergraduate degrees offered by a sample of Australian Business Schools. Four overlapping categories were developed from the various approaches that were revealed from the literature, discussions with Associate Deans of Teaching and Learning and from a survey of the websites of 15 Business Schools. Only approaches related to academic student support are covered in this paper. The categories of first year student academic support identified in this paper are: pre-enrolment support; diagnostic testing; identification of students at risk; standalone academic skills units; and other academic skills development support.

Introduction

The Australian Government is planning to introduce a revised model to measure universities' teaching and learning performance to determine the distribution of around \$130million in funding across universities. It intends to introduce the *University Experience Survey*. This survey will measure students' perceptions of engagement and satisfaction with their university studies at the end of the *first* semester (DEEWR, 2009). This, it hopes, will: “encourage universities to direct a significant part of their efforts to support and nurture commencing students” (DEEWR 2009:15).

The challenge of achieving high scores on this survey (and therefore, the related funding), is made significantly harder by the concurrent introduction of other performance indicators related to *participation, inclusion and completions*. The Government has set a target of 40 percent participation of 25 to 34 year olds in at least a bachelor level qualification by 2025. It has also set targets to increase the inclusion of the low socio economic sector participants to 20 per cent of undergraduate enrolments by 2020 (DEEWR, 2009). The likely outcome of achieving the participation and inclusion targets is a decrease in the already low completion rates at some universities, unless the first year experience in higher education is transformed.

The transformation of the first year experience is already well on the way in the sector both in Australia and internationally. For example, a survey conducted by the European Universities Association, found that 85% of respondents reported they have “academic orientation” and language training in first year (EUA, 2007). Further, 73% of members of the American Association of Colleges and Universities reported the first year experiences that support transition to higher education are at the top of their list of priorities (Hart Research 2009). Prinsloo et al., (2010) also note that concerns about “graduate throughput” are endemic to higher education internationally.

Research over the past two decades has found that the reasons students leave university prior to completion are highly complex (Bird and Morgan, 2003; Tinto, 2006; DEEWR, 2009).

However, it has been shown that frustration caused by poorly designed and delivered units in first year can increase attrition (e.g., Long et al., 2006). The question is what changes, interventions and innovations will have the highest positive impact – measured as a reduction in attrition and an increase in student perceptions – on the first year experience? This paper categorises and reviews a variety of academic support strategies for enhancing the first year experience. This paper is based on a brief literature review, informal, but widespread discussions with Associate Deans, Teaching and Learning (Business) and a survey of the websites of 15 Australian Business Schools. It presents a holistic approach to the “Design for student success” theme of the 2011 FYHE conference by addressing “institutional innovation and the FYHE”, not just in one institution, but in several institutions. It is noted that the ability to evaluate each approach is greatly hindered by the lack of available evidence that connects the introduction of interventions to data on first year students’ perceptions and attrition rates. While many research papers already exist that measure “success” of individual innovations, many other innovations are at such an early stage of their implementation that the related data is not yet available.

A large proportion of the student support services introduced into first year are of a non-academic nature. Non-academic support includes career advice, accommodation assistance, psychological counselling, orientation, mentoring, welfare service, social events etc. These types of services are not reviewed here, instead the focus of this paper is on academic support, that is, the type that supports students’ cognitive qualities. Moreover, a distinction is made between the attributes of high quality curriculum design that all students should experience, irrespective of the year of study, and first year academic support.

The remainder of this paper is organised as follows: the next section creates a distinction between first year student support and high quality curriculum design in general. The following section presents the main first year academic support innovations revealed from this research in five overlapping categories of: pre-enrolment support; diagnostic testing; identification of students at risk; standalone academic skills units; and the embedding of academic skills development into existing units. The final section contains conclusions.

Quality of curriculum design

A distinction is made between the quality of curriculum design and delivery and additional first year student support. While a little artificial, this distinction is made to highlight the importance of quality teaching and learning generally. Without such quality the impact of specific interventions will be diminished. This distinction will almost disappear when interventions are embedded deliberately into the curriculum. However, there are numerous other dimensions to curriculum design that need to accord with specified minimum standards. The following list provides some examples from the literature of best practise curriculum design attributes:

1. Establishing procedures and a culture that honours Principles of Good Practice in Undergraduate Education (for example, the classic 7 developed by Chickering & Gamson, 1987).
2. Clearly expressed and constructively aligned learning objectives and expectations (Biggs and Tang, 2007).
3. Clear understanding by unit assessors of what is reasonable to expect from first year students – avoiding the “crowded curriculum” (Kift, 2009).

4. The appropriate use of the “threshold concepts” approach to presenting discipline knowledge (Meyer et al., 2006).
5. Well designed, constructively aligned assessment tasks that achieve high levels of student engagement - “high impact activities” (Kuh, et al., 2008).
6. Assessment due date audits – avoiding overwhelming assessment schedules.
7. Prompt and relevant feedback on assignments with extensive structured guidance.
8. A number of small formative assessment tasks, or the ability for students to self-assess their progressive knowledge (e.g., Casem, 2006; Dalglish and Evans, 2008).
9. A whole of curriculum approach to individual unit design (Biggs and Tang, 2007).

Improving the student experience is as much about getting these aspects of the education process right as it is about providing additional student support. Many of the features of a high quality curriculum are currently missing and their implementation is a significant challenge for several reasons. For example, achieving a “best practice” curriculum involves cooperation between unit assessors and educational experts at a level never before experienced. It also involves unit assessors changing years of entrenched poor practice and culture. In short, it is challenging, because it means significant change.

An input measure of the quality of a unit can be determined by the extent to which the scholarship of teaching is reflected in its design. A well designed curriculum benefits all students, but given our diverse student populations, it is unlikely that any one design will satisfy the needs of all students, therefore additional support is needed by many students, especially first year students.

Academic skills support

The term *student support* is commonly used to describe a broad range of activities. Consistent with the idea that curriculum design and delivery can be viewed separately to additional student support, Simpson (2002:10) defines student support in its broadest sense as: “...all activities beyond the production and delivery of course materials that assist in the progress of students in their studies”

As noted above, all student support activities fall into two broad categories of academic and non-academic support. Taylor (2008) categorises academic support into support designed to develop students’ study skills and work skills. There are significant overlaps between these skills, and the distinction between curriculum design and student support becomes more vague, because the development of work skills usually forms an integral part the curriculum in the form of course learning goals (or objectives). A consequence of this overlap though, is that much of the abundant literature on the development of graduate attributes is relevant to the development of study skills.

The extent of overlap between work skills and study skills is evident in Taylor’s (2008) list of academic study skill: communication skills; working with others; assessment skills; academic numeracy; critical analysis/problem solving; reflective/self monitoring skills; managing university; study management; and information literacy.

Academic study or learning skills are what students need in order to make a successful transition into higher education and until recently universities assumed that all students had these skills prior to arriving in first year. In the past this would have been a reasonable assumption to make, however, as a consequence of the loosening of university entry hurdles, many students now enter without these skills.

Various strategies have been introduced in an attempt to address first year students' lack of preparedness for university study. To identify the main strategies adopted in Australian Business Schools, numerous, but informal discussions were held with Associate Deans of Teaching and Learning of around 10 Australian Business Schools, surveyed the websites of 15 Australian universities and reviewed a sample of the relevant literature. This process resulted in the identification of numerous strategies, which can be categorised as follows:

1. Pre-enrolment support;
2. Diagnostic testing;
3. Identifying students at risk;
4. Standalone academic skills units; and
5. Embedding of academic skills development into existing units.

Each is described and evaluated in the remainder of this section.

Pre-enrolment support

Many Australian universities have introduced pre-enrolment academic skills programs that are designed to equip students with the required academic skills prior to commencing first year. They are commonly labelled as Foundation or Preparing for Success Programs (PSP). While these programs have been shown to be highly successful, only a small proportion of students complete them – possibly, because: they are voluntary; do not count for credit towards the degree; students are uninformed about the level of assumed knowledge on entry; or students are deluded about their own entry level skills. The latter two are further addressed below in the section on diagnostic testing.

Diagnostic testing

Diagnostic testing in its various forms is extensively used in higher education (Taras, 2010). They are used anywhere in the period between pre-enrolment and the final year of study. They are particularly effective when they allow students to accurately self-assess their current skills and knowledge levels in the areas required for successful completion of a unit of study. Diagnostic testing can be used as a form of academic support for first year students before and immediately after enrolment.

Pre-enrolment diagnostic tests can be used as an effective way for universities to more clearly communicate expectations about pre-requisite entry knowledge to prospective students. A valid test of assumed entry level knowledge will provide prospective students with accurate information about their level of preparedness for study in a specified program. However, a quick survey of the websites of 15 Australian Business Schools' entry requirements information, revealed that none offered a pre-entry self-diagnostic test of assumed knowledge. No university specified pre-entry prerequisites, but some listed final year high school mathematics as assumed knowledge. Entry hurdles, of course, communicate assumed knowledge levels, but when these are flexible, or when prerequisite studies are not incorporated into them, they do not ensure students' preparedness for study. In response to this, some universities provide somewhat vague, one or two paragraph "assumed knowledge" statement.

One example, however, of the use of pre-enrolment self-diagnostic testing is provided by the UK Open University. It has no entry hurdles and uses pre-enrolment testing in all courses so

as not to compromise on standards or set up unprepared students for failure. These tests are akin to a pre-enrolment skills audit. Students assess their own capabilities and undertake pre-entry study if required.

While those universities that provide a short statement about assumed levels of knowledge required at entry service prospective students better than those that provide no information, it is unlikely that these short statements are sufficient to provide prospective students with a clear understanding of the skills they need to possess on entry. Consequently, their ability to self-diagnose their level of preparedness for university study is denied to them. There is an active debate in the literature about diagnostic tests in higher education (for a comprehensive coverage of this debate refer to Taras, 2010). However, a carefully designed automated self-administered diagnostic test of the specific knowledge students are assumed to possess on entry will go a long way towards ensuring prospective students do not misunderstand what the university expects of them.

There is little doubt that developing a diagnostic test of the entry skills required for undergraduate business studies is challenging. Efforts to identify the entry levels of literacy and numeracy skills will, however, force curriculum designers to become explicit about their own expectations. It is likely, though, that many lecturers, especially those not trained in higher education pedagogy, are not currently conscious even of the skills and knowledge required for successful completion of the assessment tasks they themselves develop. In these circumstances it becomes even harder to identify entry skill requirements. The introduction of a trial of assumed knowledge diagnostic testing may well lead to an improved curriculum.

The potential benefits make it worthwhile for universities to spend resources in investigating them more deeply. Much is added to this debate by Coats and Friedman (2010) who find that the Australian Special Tertiary Admissions Test (STAT) is a valid predictor of success at university.

Many universities (e.g., Edith Cowan University) have introduced post-enrolment diagnostic tests of literacy as a means of supporting first year students. Each new student is asked to complete a short writing task, which is marked by specially trained staff. If the results of the test indicate a need for further development the student receives encouragement to attend targeted classes. Attendance at these literacy support classes is voluntary and there is no guarantee that even a majority of students identified as in need of attending them will in fact attend. Evaluation of the success of this strategy is not yet possible, because it is only in the early stages of implementation.

Identification of at risk students

James et al., (2010:6) note that “[t]here is perhaps no greater challenge facing the sector than that of identifying and monitoring the students who are ‘at risk’ of attrition or poor academic progress.”

The post-enrolment diagnostic literacy test described above is a clear example of a means of identifying students “at risk”. The advantage of this approach is that the identification occurs at enrolment, which increases the chances that intervention strategies can be put in place early enough to prevent the student from failing or becoming so overwhelmed that he/she totally withdraws from university study. Ideally in cases where enrolment hurdles are not sufficient to ensure preparedness of students, all systems in place should accurately identify “at risk” students at the time of enrolment.

While intended to provide a measure of “value added”, that is, the extent of learning that occurred during study, the looming introduction of the Collegiate Learning Assessment (CLA) test may also be useful in identifying the level of new student preparedness for university study. To the extent that the STAT and CLA test the same skills, the findings of Coats and Friedman (2010) can be applied to CLA. There is little doubt that useful data will be created by the collection and correlation of CLA test results and student progression results.

Apart from diagnostic testing, correlating other entry level data with student progression has provided some universities with valuable data about students “at risk”. This process has the potential to identify if particular admission modes can be used to predict student success. Examples of the entry level data that can be used for this purpose are: International English Language Testing (IELTS, or equivalent) scores in each band; the specific institution that provided the IELTS score; the specific pathway by which the student entered university (the TAFE or private educational provider), the ATAR score and all other separate admission modes (mature age, distance education, campus location, etc).

The listing of “at risk” students is common practice across Australian Business Schools. Variation exists in the list’s timing and method of creation. Clearly the method of identifying students at risk depends on the nature of the data available about each student. The data available about each student depends on the length of time a student has been enrolled and the nature of data collected about each student.

Common methods for identifying “at risk” students who are well into their studies include:

1. tracking usage of the learning management system and contacting those students who have failed to engage in them within the first four weeks;
2. tracking and contacting first assessment failures or non submissions; and
3. listing students whose grade point average falls below a certain level at the end of a study period.

The limitation of these methods is that interventions are often not possible until after the student has already failed one or more units. The effectiveness of this type of tracking depends on the quality and up take of the interventions that are proposed to the student. Sophisticated business intelligence systems have been developed in many universities to search and monitor data banks of individual student performance. In addition, student input to these tracking systems is sought in the form of an “e-Motion” system whereby the students indicates their level of happiness. In some universities (University of New England) daily reports are produced and dedicated trained staff have responsibility to follow up with interventions.

These methods assist in the design of intervention strategies that are better targeted to individual student needs. However, apart from the funding needed to develop such systems, the challenge in this form of student support is ensuring that the identified student actually receives tailored assistance. The success with which this assistance is consistently provided depends to a large degree on the level of cooperation between lecturers and the providers of the additional support – an issue that is further developed below.

Specialised software is available for this purpose, for example, RightNow and *IMS*’ Targeted Retentions Systems (TRS). However, these need to be integrated with the university’s systems to develop effective tracking systems.

Standalone skills units

An increasing number of standalone academic skills units, which count for credit, are being introduced into the first year of business degrees. These units are an integral part of the curriculum, although challenges related to determining which students should be directed (compelled) to enrol in these units still exist.

While it has been common for communications type units to be included in the core of a bachelors' degree, the nature and extent of academic skills units now go far beyond this. For the purposes of this paper, a small survey of 15 Australian universities was carried out with the specific purpose of identifying the number and nature of standalone academic skills units included in their Bachelor of Business/Commerce degree. The sample represents around 37% of all Australian university level business schools, it was not selected on the basis of a method that would allow for generalisation of these results to all Australian undergraduate business courses. The degree structures and core unit information was accessed via the internet. The survey included both large city based universities and regional universities.

The survey revealed that 11 of the 15 universities included in the survey have at least one standalone academic skills unit. Most of the units have content that is a combination of study and work skills. Eight universities offer one skills unit, two offer two such units and one offers three. The majority of these units are communication type units – reflecting the importance of this skill for business graduates and the overlap between study and work skills. Intercultural communication skills are a feature of some communications units (e.g., see Deakin). Consistent with the list of academic skills listed at the beginning of this section skills related to critical thinking; assessment; information literacy; teams; and self reflection are explicitly included across the units surveyed. It is noted that some of the unit descriptions make claims that seem unattainable. While most academic skills feature heavily in these units, numeracy skills units are noticeable by their absence. Each skills unit claims to develop a given skill within the context of business. This is because study skills, like work skills, are best developed within a field of knowledge (Bath et al., 2004, De La Harpe et al., 2000, Hattie et al., 1996). The fact that these units are delivered in the context of the discipline distinguishes them from the pre-enrolment preparation courses, which tend to be generic in nature.

Concerns have been expressed about the academic standing of these units and it must be assumed that their content is significantly different to the pre-enrolment study skills programs described above. Moreover, the existence of a separate academic skills unit has not meant that their development can be ignored in the rest of first year.

Some institutions offer academic skills development units within a “college” or “institute” that is separate to the university (e.g., Australian National University and Murdoch University). These institutions award diplomas (e.g., in tertiary studies) that can be used as a direct pathway to the university's degree programs, with full credit transfer. This allows students who do not otherwise meet the entry requirements to enter degree level studies. The advantage of this approach is that students receive formal recognition for completion in the form of a certificate, diploma. Such diploma opportunities are also offered directly by universities (e.g., Monash University) without the involvement of a separate institution. Tracking of pathways with student progression, as mentioned above, will provide valuable data about whether these types of diplomas provide “better” students.

From a practical view point, an advantage of these units is that there is little need to secure the cooperation and involvement of incumbent first year lecturers, who too often are already overwhelmed by workload and/or are not engaged with pedagogical considerations. Most of these units are relatively new. Any evidence about the effectiveness of these units in improving student progression and satisfaction would be of great benefit to the sector. There is little doubt that individual universities are gathering this evidence, but it is again too soon since their introduction to an assessment of their effectiveness.

Academic Skills support

One of the most ambitious efforts to embedding holistic transition pedagogy into a first year curriculum design by an Australia university (Queensland University of Technology) is documented in Kift and Nelson (2005). Much of the work done (and yet to be done) at QUT involves ensuring that the first year curriculum is designed in such a way that the latest research on student learning is incorporated into the curriculum. The types of changes to be made are similar to the list of high quality curriculum design characteristics given above, but also include embedding of study skills into units. The guiding philosophies used are designed to ensure that students' "time on task" (engagement) and the use of authentic learning environments, experiences and assessments are increased (Kift & Nelson, 2005:230). For example, rather than introducing a separate English Language unit, QUT recently appointed four specialised English language teachers each of whom is assigned to a unit to assist international students with poor language skills.

In several other universities, an Academic Support Development Unit (ASDU) also plays an integral part in the delivery of units. ASDU staff are formally scheduled into the timetable to make presentations to students on strategies for completing the assessment tasks. ASDU's role in the development of assessment tasks is also formalised. However, this method of student support requires significant cooperation between lecturers and ASDU staff. In the absence of relevant university policy or frameworks that foster this cooperation students are simply be told about the existence and purpose of ASDU during orientation and its services are "advertised" on the university's web pages. Alternatively, individual unit assessors casually recommend that certain students seek help from ASDU, but rarely follow up whether this occurred. Students who have been identified as being "at risk" are often sent a standard letter recommending they make an appointment with ASDU. While students have been expected to independently seek out help from ASDU this service has been under utilised or utilised ineffectively.

Most universities also provide vast amounts of online, self-help support in academic skills development.

Conclusion

Changes to the way in which a university's teaching and learning performance is measured and rewarded by the Australian government are set to provide a boost to the transformation of the first year experience that has already been occurring. Students' perceptions of engagement and satisfaction during or at the end of first year and attrition rates will have a greater impact on the funding received by universities.

It is common for many Australian universities to have low admission hurdles. It is reasonable for students to assume that since the university has admitted them they have been assessed as capable of coping with first year. However, current attrition and failure rates

suggest that a significant proportion of admitted students are, in fact, not prepared for first year. Many universities fail to inform admitted students about the level of pre-entry skills and knowledge necessary to cope with first year. This represents an ethical issue for universities that are beginning to be address in the ways identified in this paper.

It would seem obvious that the first step for any university that is serious about improving the student experience is to develop and implement an intentional whole of curriculum design with minimum quality attributes that are an integral part of all the units offered (Kift and Nelson, 2005). Various support mechanisms, ranging from standalone units to students seeking assistance independently, were described and discussed in this paper. It is unlikely that anyone of these approaches alone provide sufficient support. Current developments across the sector can be described as transformational, but it is still too early to assess the degree of success of many of these approaches or to identify the combination of approaches that maximise the benefits. It is an exciting and an ever changing area to work in. There are already a large number of tools available related to areas such as identifying at risk students and pre-enrolment self assessment or diagnostic tests that are worthwhile investigating.

References:

- Bath, D., Smith, C., Stein S., & Swann, R. (2004). Beyond mapping and embedding graduate attributes: Bringing together quality assurance and action learning to create a validated and living curriculum, *Higher Education Research and Development*, 23(3), 313-328.
- Biggs, J., & Tang, C. (2007). *Teaching for Quality Learning at University*. Berkshire: McGraw-Hill.
- Bird, J., & Morgan, C. (2003). Adults contemplating university study at a distance: Issues, themes and concerns, *International Review of Research in Open and Distance Learning*, 4(1), Retrieved January 17, 2010, from <http://www.irrodl.org/index.php/irrodl/article/view/130>
- Casem, M. (2006). Active learning is not enough, *Journal of College Science Teaching*, 35(6), 52-56.
- Chickering, A., & Gamson, Z. (1987). *Seven Principles of Good Practice in Undergraduate Education*, the American Association of Higher Education.
- Coates, H., & Friedman, T. (2010). Evaluation of the Special Tertiary Admissions Test (STAT), *Journal of Higher Education Policy & Management*, (32)2, 117-126. Retrieved February 8, 2011, from Academic Search Premier, EBSCOhost.
- Dalglish, C., & Evans P. (2008). *Teaching in the global business classroom*. Cheltenham: Edward Elgar.
- De La Harper, B., Radloff A., & Wyber, J. (2000). Quality and Generic (Professional) Skills, *Quality in Higher Education*, 6(3), 231-243.
- Department of Education, Employment and Workplace Relations (2009). *An Indicator Framework for Higher Education Performance Funding*, Discussion Paper, December. Retrieved April 12, 2010 from <http://www.deewr.gov.au/HigherEducation/Documents/HIEDPerformanceFunding.pdf>
- European Universities Association. (2007). *Trends Universities Shaping European Higher Education Area*, by Crosier, D., L. Purser and H. Smidt. Retrieved April 13, 2010 from

<http://www.eua.be/eua-work-and-policy-area/building-the-european-higher-education-area-bologna-process/trends-in-european-higher-education/trends-v/>

- James, R., Krause, K., & Jennings, C. (2010). The First Year Experience in Australian Universities: Findings from 1994 to 2009, Centre for the Study of Higher Education, The University of Melbourne and Griffith Institute for Higher Education, Griffith University. Retrieved April 12, 2010, from http://www.cshe.unimelb.edu.au/research/FYE_Report_1994_to_2009.pdf.
- Hart Research. (2009). Trends and Emerging Practices in General Education – Based On A Survey Among Members of The Association of American Colleges And Universities. Retrieved April 13, 2010, from https://www.aacu.org/membership/documents/2009MemberSurvey_Part2.pdf
- Hattie, J., Biggs, J., & Purdie, N. (1996). Effects of learning skills interventions on students learning: a meta-analysis, *Review of Educational Research*, 66(2), 99-136.
- Kift, S. (2009). A transition pedagogy for first year curriculum design and renewal. Keynote Address. *FYE Curriculum Design Symposium 2009*, Brisbane. Available on: http://www.fyecd2009.qut.edu.au/resources/PRE_SallyKift_5Feb09.pdf Accessed on 10 April 2010
- Kift, S. & Nelson, K. (2005). Beyond Curriculum Reform: Embedding the Transition Experience, HEDSA Conference. Retrieved January 17, 2011, from http://conference.hersa.org.au/2005/pdf/refereed/paper_294.pdf.
- Kuh, G., Cruce, T., Shoup, R., Kinzie J., & Gonyea, R. (2008). Unmasking the Effects of Student Engagement on First-Year College Grades and Persistence, *The Journal of Higher Education*, 79(5), 540-563.
- Long, M., Ferrier F., & Heagney, M. (2006). *Stay, play or give it away? Students continuing, changing or leaving university study in their first year*, ACER, Clayton: Monash University.
- Meyer, J., Land R. & Davis, P. (2006). Implications of Threshold Concepts for Course Design and Evaluation, in Meyer, J. and P. Land (eds), *Overcoming Barriers to Student Understanding: Threshold Concepts and Troublesome Knowledge*, London and New York: Routledge.
- Prinsloo, P., Muller H. & Du Plessis, A. (2010), Raising Awareness of the Risk of Failure in First Year Accounting Students, *Accounting Education: an international journal*, 19 (1-2), 203-218.
- Taras, M. (2010). Student self-assessment: processes and consequences, *Teaching in Higher Education*, 15(2), 199-209.
- Taylor J. (2008). Articulating a Transition Pedagogy Commentary on first year curriculum case studies: Academic skills perspective, Queensland University of Technology, Retrieved April 1 2010, from http://www.altcexchange.edu.au/system/files/Taylor_Commentary_27Nov09_FIN.pdf
- Tinto, V. (2006). Research and Practice of Student Retention: *Journal of College Student Retention*, 8(1), pp1-19.
- Upcraft, M. L., Gardner J. N., & Barefoot, B.O. (2005). *Challenging and supporting the first-year student*. San Francisco: Jossey-Bass.