Hamish Coates · Alexander C. McCormick

Editors

Engaging University Students

International Insights from System-Wide Studies

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Foreword

Russ Edgerton, president emeritus of the American Association for Higher Education, was the Education Program Director at the Pew Charitable Trusts from 1997 through 2000. Among the big bets he made during his watch was earmarking about $ 3.7 million over 4 years to design, test, and implement a project that would give US colleges and universities information about what really mattered to the quality of undergraduate student learning and personal development. We know that project today as the National Survey of Student Engagement (NSSE, pronounced "nessie"). By 2006, Russ started to playfully and fondly refer to NSSE as *uber alles*, meaning it had seemingly become so large so as to encompass everything else.

Roll the calendar back to 1998 and none of us involved with NSSE imagined it would become part of the higher education lexicon in the USA, let alone be the underpinning of a global epiphenomenon as this book illustrates. We were convinced that our aspirations were noble and on the right side of history. However, we had no idea the work would blossom into a multinational reform movement. In fact, when NSSE began to get requests from other countries to adapt the tool, NSSE's national advisory board expressed misgivings, worried that the staff would become distracted and dilute the much-needed effort in the USA to champion promising educational practices and use data to guide improvements in teaching and learning.

One of the story lines of this book could be that it is hard to stop a good idea from taking root. After all, within a few years, NSSE had extensive institutional participation in North America; Canada's embracing of the NSSE was a major surprise, as NSSE did no marketing of its services in that sector. Indeed, as this book shows, there are operational student engagement projects not only in North America, but also in Australia and New Zealand (AUSSE), South Africa (SASSE), China (CCSS), and Ireland (ISSE). In addition, a host of other countries have at one time or another adapted NSSE for trial administrations. So, Edgerton's exaggerated language of several years ago sounds less far-fetched today.

Even so, the literature about the diffusion of educational innovation makes plain that it is very unusual for a new project to spread and its products and services to be widely used, not to mention become self-sustaining. Certainly, external conditions have to be ripe for acceptance, and in the case of NSSE, they were. In the USA at the turn of this century, accreditors, the media, and policy makers were all close to the same page in wanting more and better information about the performance and quality

of the postsecondary enterprise and especially the undergraduate experience. As the following chapters illustrate, similar external conditions exist in the other countries that have adapted and adopted their own student engagement survey. But there is more, much more to how and why NSSE caught fire as it were, first in the USA, then Canada, and then Australia and beyond. Indeed, if it were not for a strategic, systematic campaign to build, promote, and continually improve a high-quality information gathering and dissemination operation, it is almost certain that what now may seem to have been the natural course of events would not have unfolded.

From the beginning, the NSSE board and staff understood that NSSE could not just be another survey of undergraduate students if it was to help change the national conversation about what matters to collegiate quality away from the resources institutions have (which is, at root, the basis of most rankings) to what students did with these resources, which is the key to learning. And the counterpoint could not be simply exhortation; it had to be based on reliable, trustworthy, institution-specific information. To be true to its mission, NSSE had to embark on a multi-year campaign and be relentlessly persistent in its communications strategy using a language lay people would understand. We were laser-focused on becoming such an enterprise and aimed to establish an industry-leading standard in terms of the quality of its products and services.

Another key to NSSE's success was creating a questionnaire that was both substantive and easy for students to answer and also easy for institutions to use. Another priority for the NSSE Design Team led by Peter Ewell in 1998 was making sure that the survey questions would yield actionable results (Kuh 2001). That is, faculty, staff, and students could look at the data and identify student and institutional behaviours that were not satisfactory, and take action to address them. Chapter 2 by McCormick and Kinzie offers some examples; many more can be found in materials posted on the NSSE website. Also important was using leading edge survey data collection and reporting methods buttressed by an ethic of continuous quality improvement. In this regard, an understated but never under-appreciated advantage to NSSE's acceptance and subsequent prominence was its ongoing partnership with the Indiana University Center for Survey Research (Kuh 2009). Every year, the survey administration materials and the service and materials provided to institutions—from registering for the annual survey and downloading the data files to institution-specific and national reports—were improved in some way. As important as all this was to NSSE establishing itself as a valued partner in the service of improvement and accountability, these achievements could have been realized without anyone beyond NSSE staff and institutional research officers knowing about them. This leads me to another major reason why NSSE thrived which, in turn, led other countries to take notice and weigh the potential for having their own student engagement tool.

From its earliest days, NSSE's national advisory board challenged as well as supported the NSSE staff to seek the interest and explain the importance of student engagement to external audiences, with a special emphasis on the national media, both popular and academic. I have recounted the critical nature of this strategy elsewhere (Kuh 2008, 2013). Suffice to say that without the guidance of a media relations expert (William Tyson) and the imprimatur of a stellar national advisory board which gave the project instant credibility, a college student survey would not have received column space in *The New York Times*, *Washington Post,* and

other major print media outlets, a partnership with a national newspaper (*USA TO-DAY*), along with annual feature stories in US higher education media such as *The Chronicle of Higher Education* and *Inside Higher Ed* among others. Media attention was also important to NSSE's emergence as the survey of choice in Canada. Even the sometimes animated exchanges with staff at the *Macleans* magazine about its wrong-headed efforts to include student engagement results in its annual ranking of Canadian universities were more often than not helpful to the cause. All this is to say that the "selling" of NSSE was—in its early years—essential to becoming a well-known and widely used instrument for good. And the work with media paid off in another, perhaps more important way. It is, today, rare that an article about the quality of undergraduate education appears in a US publication that does not include student engagement as a necessary component of a high-quality experience.

Finally, as important as anything else, the NSSE project prospered because of the commitment and expertise of the people who signed on to the enterprise. This is not the place to name them all, but they include the research analysts and graduate student project associates who work directly with participating institutions as well as support staff, past and present. Many people in the USA and abroad have told me the NSSE team comprises the best professionals with whom they have worked. I agree. But as important as these people are, the enterprise could not have made its mark without many champions at universities, both in the USA and elsewhere in the world. Some of these champions were senior academic leaders and faculty; others held posts in national institutional membership organizations. And, especially germane to the topic of this book, some were thought leaders in other countries—Coates in Australia, Strydom in South Africa, and so forth. At the end of the day, as well as at the beginning, projects like national student engagement surveys effectively deliver on their promises if skilled, thoughtful, right-minded people are at the helm and those of similar bearing are doing well the critical, never-ending daily tasks that ensure the quality of information that allows institutions to take action with confidence.

I mention these factors, which to my mind have been essential to NSSE's success because I am fairly certain that for student engagement projects in other countries to have the desired impact, an approach akin to what I have described will be needed. Yes, contextual conditions vary from country to country. One of the more obvious lessons from the chapters in this book is the relative influence different entities have on quality assurance functions. In the USA, state and local governments as well as accreditors are keenly interested in quality assurance, but none of them had a stake in the development or sustenance of NSSE. NSSE was launched with private foundation support, with nary a dollar from public coffers. In this regard, contrast the US experience with, for example, Canada, Ireland and Australia, where government interest in and/or funding of student engagement projects have been instrumental in undertaking the work.

More striking to me after perusing the chapters in this book is the similarity in how the project work has unfolded, once the student engagement survey was developed. While the scope of projects varies, most started with small numbers of institutions on a try-out basis before achieving a grander scale of participation. Most have found the student engagement results to be similar from one administration cycle to the next, which is (happily) to be expected with a psychometrically reliable tool.

Most are learning how to interpret the patterns of findings for local consumption. And most, sooner or later, realise that they must disaggregate the data to the lowest level of the institution possible in order for faculty and staff to have confidence in and take ownership of the results and begin the challenging work of changing policies and teaching and learning practices.

Not as evident in many of these chapters is the degree to which efforts have been made to introduce and explain the importance of student engagement to audiences beyond the project staff, participating institutions, and funders. Granted, it is a noisy world, and media are partial to stories that titillate rather than educate. Nonetheless, cultivating media—at least those responsible for reporting on education issues—and, for example, positioning student engagement data as a superior indicator of quality compared to the nonsense employed by the all-but-ubiquitous rankings regimes—will sooner or later be necessary if student engagement is to become part of the higher education lexicon in other parts of the world.

The student engagement projects described in this volume and the data they produced are important, probably even necessary, to persuade people to focus on what works to promote learning and personal development and then to use promising practices more frequently and effectively. At the same time, we must position this work so it complements—not competes with or tries to substitute for—the kinds of instructor-designed assignments and other class/lab/studio-based activities that induce students to demonstrate high levels of accomplishment across the domains of desired twenty-first century proficiencies. True, student engagement is itself, as Shulman (2002) persuasively argued, a valued outcome of postsecondary education, in that students who are involved in educationally productive activities in college are developing habits of the mind and heart that likely enlarge their capacity for continuous learning and personal development. Equally important, student engagement represents the kinds of conditions that will help more students attain the skills and competencies they need to survive and thrive after college. And that is more than enough to justify the good and important work that the contributors to this book and their colleagues are doing and to recommend the volume to educational leaders and policy makers.

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Chris Conway has served as the director of institutional research at three Canadian universities, and is currently the Director of Institutional Research and Planning at Queen's University in Kingston, Canada. His professional interests and activities include evaluation research, accountability and performance measurement, enrolment projections, survey and market research, and strategic planning. He was instrumental in bringing NSSE to Canada for its first administration in 2004 and coordinated two Canadian NSSE consortia. He has since led a number of engagement-related research and implementation projects. One involved a dozen Ontario universities in the design, implementation and assessment of en-gagement 'interventions' to test field practices and assess the measurement powers of NSSE and CLASSE. Another resulted in a Canada-wide NSSE data sharing and analysis agreement that led to the development of academic program- and student subgroup-level engagement reports and an analysis of the explanatory value of student, program, and in-stitutional characteristics. He leads engagement initiatives at Queen's and interacts with a number of organizations on post-secondary quality and accountability issues at the provincial and national levels.

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Vivienne Patterson is Head of Statistics in the Higher Education Authority. She holds a PhD and master's degree in science from Dublin City University and a bachelor's degree in Zoology from University College Cork. She previously worked as a Senior Researcher in the Skills and Labour Market Research Unit of Foras Aiseanna Saothair (FÁS) and the Skills Initiative Unit, a Government funded agency. Her specialist area of research is monitoring trends in post primary and higher education. She has project managed a number of large scale surveys such as The National First Destination of Graduates Survey, The Eurostudent Survey and the Equal Access Survey. She has co-authored a number of education publications during her career and publishes the annual Statistics Bulletin of higher education data. She is a member of the Irish Survey of Student Engagement Steering Group and the ISSE Survey Design Group.

Lewis Purser is director (academic affairs) at the Irish Universities Association, where he works with the Academic Vice-Presidents across the Irish universities, and supports other groups including the admissions officers, access managers/ directors, international officers, quality officers, heads of teaching and learning and heads of student services. From 1998–2005 Lewis was programme manager at the European University Association. A graduate of Trinity College Dublin and of the Graduate Institute of Development Studies at the University of Geneva, he worked from 1989–1998 with various higher education institutions in Hungary, Romania, and Bosnia-Herzegovina, and with several United Nations agencies in educational, health and social fields. Lewis is co-editor of the *Journal of the European Higher Education Area*, and of *Leadership and Governance in Higher Education*. He has been a member of the European University Association's Institutional Evaluation Programme expert pool since 1998, and has undertaken reviews of universities and national higher education agencies in a dozen countries across Europe and Latin America.

Alexandra Radloff conducts research in the field of higher education. Over the past several years she has played an integral role in a number of large-scale research projects in higher education sectors in Australia and internationally. Alexandra is a Research Fellow in the Higher Education Research Program at the Australian Council for Educational Research (ACER). She directs and manages a number of large-scale research projects, including the AUSSE.

Heidi Ross teaches social foundations and comparative and international education courses in the Educational Policy Studies program at Indiana University. Her primary interests include education and schooling in China, and she is director of Indiana University's East Asian Studies Center. Ross has investigated gender socialisation,

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Jinghuan Shi is a professor and the Executive Dean of the Institute of Education, Tsinghua University. She also works as the Chairperson of Beijing Association of Women Professors and is a member of the 10th and 11th Beijing Municipal Political Council. Dr. Shi has worked as a professor, the Deputy Department Chair and the Director of Research Institute of Education and Cultural History in Beijing Normal University for a number of years. She worked as a Fulbright professor at the University of Maryland at College Park in the USA in 1996 and as a specially Appointed Professor at the Center for Research and Development of Higher Education at Hokkaido University in Japan in 2006. She has broad academic publications in higher education, international and comparative education and history of education. Dr. Shi has a rich experience in working with international organizations including the World Bank, the UNDP, UNESCO and UNICEF.

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David Tippin recently retired as Quality Coordinator at the University of Auckland. He holds a PhD in sociology from the University of Toronto and has taught in universities in both Canada and New Zealand. Dr. Tippin also had a lengthy career in the Canadian government, initially in the diplomatic service and later as an evaluation manager and as head of an applied research program on use of technologies in the workplace.

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Alexander C. McCormick holds a faculty appointment in the Indiana University School of Education's Educational Leadership and Policy Studies department, where he teaches the Higher Education and Student Affairs program. He also directs the National Survey of Student Engagement (NSSE), housed in the Indiana University Center for Postsecondary Research. Through his work with NSSE, he aims to enrich the US discourse about quality in higher education, while also providing institutions with tools they can use to diagnose and improve undergraduate teaching and learning. His research interests centre on assessment and accountability in higher education, and also organizational change and improvement in higher education. Prior to joining Indiana University, he served as Senior Scholar at the Carnegie Foundation for the Advancement of Teaching, where he directed a major overhaul of the Foundation's widely used Classification of Institutions of Higher Education and also served as the director of survey research.

Abbreviations

ACER   Australian Council for Educational Research
ACL   Active and Collaborative Learning
AHEGS   Australian Higher Education Graduate Statement
ARWU   Academic Ranking of World Universities
ATN   Australian Technology Network
AUCC   Association of Universities and Colleges of Canada
AUQA   Australian University Quality Agency
AUSSE   Australasian Survey of Student Engagement
BCSSE   Beginning College Survey of Student Engagement
BSLI   Biology Science Literacy Initiative
BUSSE   Beginning University Survey of Student Engagement
CCSS   Chinese College Student Survey
CEGEP   Collège d'enseignement général et professionnel
CELT   Center for Engaged Learning and Teaching
CEQ   Course Experience Questionnaire
CHE   Council on Higher Education
CLASSE   Classroom Survey of Student Engagement
CPR   Center for Postsecondary Research
CQU   Chongqing University
CSHE   Centre for the Study of Higher Education
CSR   Center for Survey Research
CTL   Centre for Teaching and Learning
CUSC   Canadian University Survey Consortium
DEEP   Documenting Effective Educational Practice
DEEWR   Department of Education, Employment and Workplace Relations
DHET   Department of Higher Education and Training
DIRAP   Directorate for Institutional Research and Academic Planning
EEE   Enriching Educational Experiences
EU   European Union
EUA   European University Association
FAS   Foras Aiseanna Saothair
FSSE   Faculty Survey of Student Engagement
FYE   First Year Experience

GDP	Gross domestic product
GDS	Graduate Destination Survey
Go8	Group of Eight
GSU	Georgia State University
GZU	Guizhou University
HEA	Higher Education Authority
HEI	Higher education institution
HEQC	Higher Education Quality Committee
HEQCO	Higher Education Quality Council of Ontario
HESA	Higher Education South Africa
HSRC	Human Sciences Research Council
IMHE	Institutional Management in Higher Education
IoT	Institutes of Technology
IOTI	Institutes of Technology Ireland
IRU	Innovative Research Universities
ISSE	Irish Survey of Student Engagement
IUA	Irish Universities Association
KPI	Key performance indicator
LAC	Level of Academic Challenge
LSSE	Lecturer Survey of Student Engagement
NAIRTL	National Academy for Integration of Research, Teaching and Learning
NCEA	National Certificate of Educational Achievement
NMMU	Nelson Mandela Metropolitan University
NPC	National Planning Commission
NSSE	National Survey of Student Engagement
NUIG	National University of Ireland, Galway
OECD	Organisation for Economic Co-operation and Development
PBRF	Performance-Based Research Fund
POSSE	Postgraduate Survey of Student Engagement
PTEs	Private Training Establishments
QEP	Quality Enhancement Plan
SACS	Southern Association of Colleges and Schools
SASSE	South African Survey of Student Engagement
SCE	Supportive Campus Environment
SDS	Student Development and Success
SEQ	Student Engagement Questionnaire
SFI	Student-Faculty Interaction
SSES	Staff Student Engagement Survey
TAFE	Technical and Further Education
TLCs	Teaching and Learning Committees
UCD	University College Dublin
UFS	University of the Free State
UJ	University of Johannesburg
USI	Union of Students in Ireland
UT	University-transfer
VSA	Voluntary System of Accountability

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Chapter 1
Introduction: Student Engagement—A Window into Undergraduate Education

Hamish Coates and Alexander C. McCormick

A Perspective that Adds Up

When university staff open library doors, light up lecture theatres, equip laboratories, tend the grounds and turn on coffee machines, it is hoped that students will make use of such resources to advance their learning and development. It is assumed that the investments institutions make in hiring, training and managing staff provide the support students need to make good use of available resources to enhance their learning. Yet hopes and assumptions can be misplaced unless learners interact with resources and supports in educationally productive ways. As with any learning, passivity is the enemy of growth. To succeed, universities need students to engage in educational activities that lead to learning. Universities, for their part, have the capacity—some would say the responsibility—to stimulate and support such engagement. In recent decades, this interest has been framed and advanced through the conceptualisation and measurement of 'student engagement'.

As higher education expands and internationalises, planning, policy and practice become more reliant on understanding how students think, behave and learn. Quality and productivity deliberations are increasingly reliant on the active contribution of learners and teachers. With this in mind, this book provides university teachers, leaders and policymakers with insights and evidence on how researchers in several countries are documenting and promoting students' engagement in educationally purposeful activities. It presents research-driven perspectives on what researchers, institutions, faculty and students have done to convert insights on student engagement into improvements in learning and teaching. While international rankings have proliferated over the last decade without notably contributing to our understanding of

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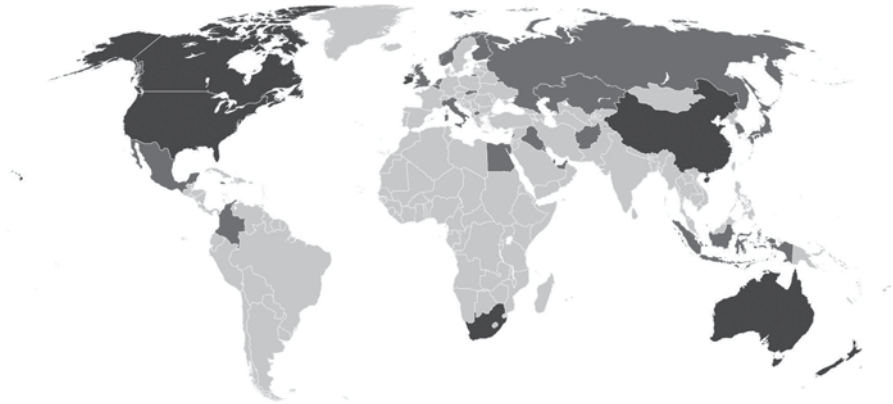
Fig. 1.1 International implementations of NSSE

educational quality, this book delves deeply into research-informed insights about quality with complex policy, conceptual and practical grounding.

The book draws on the largest international collaboration yet around education-ally relevant data on students' engagement in higher education. It captures insights from implementations and adaptations of the National Survey of Student Engage-ment (NSSE) in seven countries. NSSE was developed in the late 1990s in the USA and has been implemented there since the year 2000 at nearly 1,500 colleges and universities. Over the last decade, NSSE has been adapted for wide-scale imple-mentation in Australia, Canada, China, Ireland, New Zealand, and South Africa in addition to smaller adaptations in Japan, Korea, Mexico and other countries. Figure 1.1 maps international implementation of NSSE and its derivatives, with the dark shading indicating an established, cross-institutional data collection and the lighter shading indicating one-time, trial, or emergent implementations that involve a small number of institutions. In subsequent chapters, those involved with the full cross-national adaptations draw on their experiences with hundreds of institutions to build shared insights into how evidence on student engagement can and have been used to improve educational practice.

Reading across the chapters, you will discern an emerging picture of how stu-dent engagement surveys have played out in diverse educational settings. Together, the nationally framed observations touch on profound challenges and opportunities confronting higher education worldwide. For instance, from varying angles, the researchers focus on what may be the biggest shared challenge to quality move-ments around the world: How to convert evidence from student surveys into effec-tive institutional and educational change. Taken individually and collectively, the contributions offer advice on how to make best use of the considerable amount of information that institutions and governments have collected using student surveys in recent decades. Analysing the emerging dynamics of contemporary student en-gagement provides solid foundations for developing effective practices in universi-ties worldwide.

The concept of 'student engagement' brings together two main ideas. First, there is the simple premise, undergirded by a long record of research on undergraduate learning and development, that what students do, matters. As NSSE founding director George Kuh (2003) puts it, 'Decades of studies show that college students learn more when they direct their efforts to a variety of educationally purposeful activities' (p. 25). This emphasises 'students' involvement with activities and conditions likely to generate learning' (Coates 2006, p. 4). But while students are ultimately responsible for constructing knowledge, learning also depends on institutions and staff generating conditions that stimulate and encourage involvement (McCormick et al. 2013). Second, therefore, is a focus on 'the policies and practices that institutions use to induce students to take part in these activities'(Kuh 2003, p. 24).

Student engagement weaves together insights from several related theoretical traditions stretching back to the 1930s, as well as an influential set of practice-focused recommendations for good practice in undergraduate education (McCormick et al. 2013). While once viewed narrowly in terms of 'time on task', contemporary treatments touch on aspects of teaching, the broader student experience, learners' lives beyond university, and institutional support. Students always lie at the heart of conversations about student engagement. These conversations focus squarely on the conditions and experiences that enhance individual learning and development.

The broader concept provides a practical lens for assessing and responding to the significant dynamics, constraints and opportunities facing higher education institutions. For instance, capturing data on students' engagement can enhance knowledge about learning processes and furnish nuanced and useful diagnostic measures for learning enhancement activities. As the subsequent chapters make clear, it provides a useful source of insights into what students are actually doing, a framework for meaningful conversations about excellence and a stimulus for guiding new thinking about good practice.

Evaluating student engagement builds on a long tradition of searching for valid and reliable insights into educational processes. The contemporary social indicator movement began in the 1960s in the USA as a response to increased demand for information about the effectiveness of large-scale publicly funded programs. A key early publication, *Social Indicators* (Bauer 1966), discussed the development of social indicators, their relationship to social goals and policy making, and the need for systematic statistical information on social phenomena.

The indices that shape our understanding of education today grew out of this milieu. Assessment and evaluation have always formed part of education, but the 1983 publication in the USA of *A Nation at Risk* (National Commission on Excellence in Education 1983) greatly stimulated interest in using indicator data as evidence for educational policy, planning and practice.

The decade following the late 1980s saw rapid growth in the design and development of indicators and related data collections in higher education. Demand came from government, university leaders and managers, teachers and students, employers and industry. Rapid internationalisation, economic growth and technological advancement set new expectations for the provision of timely data on educational services. Indicator systems were designed by social researchers, policymakers and

international agencies (see for instance: Cave et al. 1997; Davis 1996; Henkel 1991; Johnes & Taylor 1990; Kells 1993; Linke 1991).

Data collections proliferated in the 1990s, in step with the global expansion of higher education and growth of the quality movement. Many, if not most, universities in developed countries implemented internal feedback systems (Nair et al. 2010). Research agencies developed statistics on student markets and employment outlooks. Governments developed quantitatively oriented performance-based funding mechanisms. As discussed by Coates (2007), production of national and international rankings of institutions is a contemporary expression of this work.

Numbers can cast an allure of certainty, but the mere existence of data does not guarantee veracity or relevance. As evidence-based planning, practice and quality enhancement develop, universities and their communities are seeking more sophisticated ways of focusing, collecting and using data on education. Greater emphasis is being placed on ensuring the conceptual and empirical validity, methodological rigour and effective use of the information that is intended to guide educational advancement. This underpins a need for data that measures what matters most for monitoring and improving education.

Yet until relatively recently, higher education institutions lacked data on students' engagement in university study. Most data spawned by the '1990s initiatives' focused on institutional and instructional factors and on the background characteristics of learners. Student data were almost exclusively focused on values, attitudes and satisfaction with the university experience. This lack of attention to teaching and learning is surprising, given that student learning and development are the core business of the academy. As the higher education student population in many countries becomes ever larger and more diverse, as the bachelor's degree becomes the passport for entry into the professional workforce and as calls mount for greater accountability and better management of costs, the educational effectiveness of colleges and universities takes on an even greater importance and there is a growing need to understand how to engage students from enrolment through to graduation.

Building large external data collections that probe—some might say 'expose'—significant facets of education is always controversial. One signal that something 'matters' is that it arouses debate, concern and even resistance. As in any change effort, particularly those which involve complex empirical techniques, it is imperative to listen and engage with critique and, as with the quality cycle itself, respond in ways that steer change and improvement. Over more than a decade, NSSE and its companion collections have prompted debate about the merits and validity of data. In several areas, the innovative nature of the collections explored in this book has shaken foundations and stimulated new kinds of critiques. When surveys present surprising and disappointing results, for instance, questions can be raised about the reliability of students' survey responses. Some critics have misinterpreted the focus on student engagement as representing a shift away from academic rigour towards student-centred pedagogies and extracurricular involvement and support. Others have assumed that aggregate institutional results cannot accurately reflect the experience of their own students. But many such complaints have faded when repeated administrations confirmed the initial findings, or when other evidence buttressed

the survey findings. Unlike public rankings, NSSE suite of surveys has been designed to fuel improvement, leading to concerns about institutional disclosure and transparency. These are explored in the chapters that follow.

Networking International Engagements

Working from these foundation insights, the remainder of this book is divided into two parts: system-level perspectives, and common themes and emerging perspectives. The first part presents international case studies illustrating how the notion of student engagement has been productively employed in a range of national contexts. Written by research leaders in the field, these case studies draw on extensive international expertise and afford an opportunity to compare and analyse national practices. The case studies are presented in the broad order in which work has unfolded.

The first chapter in part one turns to the USA's NSSE—the project that launched what has grown into an international movement to understand and promote student engagement. In this chapter, McCormick and Kinzie report on work conducted with nearly 1,500 bachelor degree-granting colleges and universities to assess the extent to which their undergraduates are exposed to and participate in empirically supported effective educational activities. The chapter begins with a discussion of the prevailing quality discourse in the USA. It then explores the conceptual and empirical foundations of student engagement and the origins of NSSE as both a response to the quality problem and as a diagnostic tool to facilitate improvement. The chapter also discusses tensions between internal improvement and external accountability efforts, and NSSE's role in the assessment and accountability movements. It concludes with discussion of challenges that confront the project going forward.

Systems, institutions and researchers in Canada started using NSSE in 2004. The chapter by Norrie and Conway provides a brief review of the postsecondary education sector in Canada. It discusses the introduction of NSSE and how it came to be administered by the majority of university-level education providers. Harvesting insights from the rich data, the chapter describes the main findings of the initial engagement surveys and sample reactions of the various stakeholders, as well as a suite of innovative research projects that resulted from the reactions. The chapter concludes by speculating on future developments of NSSE in Canada.

Applied work in Australia and New Zealand began in 2007, building on 5 years of scholarly research by Coates (2006). The chapter by Radloff and Coates explores how the data collection was seeded and took shape. As with the other chapters, the discussion offers insight into the challenges and work required to build a system-level data collection. The chapter reviews a specific line of conceptual and empirical debate to support the rationales moulding the collection—the need to shift quality assessments beyond student satisfaction to engagement. The final section discusses the various ways that institutions and other stakeholders embraced the data and insights.

In examining the New Zealand experience, Tippin draws on his experience leading quality assurance within a major university. The chapter starts with a review of the New Zealand system, followed by the activities and contexts that seeded the New Zealand engagement survey. A review of key findings leads to an analysis of how institutions are using the data and unfolding prospects for the research effort as a whole.

The fifth national case study, South Africa, provides further insight into the initiation and development of a large-scale data collection. In this chapter, Strydom and Mentz examine the shaping of institution and policy contexts, the development of a suite of South African data collections, and applications of the survey data for quality improvement, research and capacity development.

China is the sixth national case study. Working from a broad overview of the development of higher education in China, and in particular the formation of quality assurance systems, this chapter offers insight into the development and use of NSSE-derived Chinese College Student Survey (CCSS). The chapter begins with analysing policy and project contexts which have shaped the data collection. Three institutional portraits next illustrate the impact of NSSE-China/CCSS initiative at the institutional level. The chapter concludes by taking stock of the enduring contribution offered by the CCSS for enhancing quality assurance in the rapidly expanding Chinese higher education system.

The final national contribution, and the newest, is from Ireland. Concerns about quality have grown with the expansion and change of Irish higher education over the last decade. This chapter charts how, following a number of reviews, a collaborative process was established that involved government, institutions and students in developing the Irish Survey of Student Engagement (ISSE). The chapter outlines development of the ISSE and discusses how survey data will be used to enhance student development, engagement and transition. The chapter also discusses how the ISSE will be used to understand how students from diverse backgrounds as well as first-year and postgraduate students are engaging with higher education.

The second part of the book draws lessons from research in different national contexts to suggest ways for using student engagement insights to enhance higher education. Chapter 9 uses the professional 'role' as an international vehicle for engaging people in evidence-informed change. We explore the perspective of senior university leaders, quality assurance professionals, institutional researchers, program coordinators, librarians, academic skills developers, career development staff and first-year experience and orientation program staff. Rather than summarising each of the national contributions in a descriptive fashion, the role-based lens synthesises insights from the cross-national work to suggest strategies that could reasonably be adopted by professionals across different systems. Brief suggestive remarks about future development are offered by way of conclusion.

Student engagement is a complex and dynamic phenomenon that often cuts across conventional organisational distinctions. Accordingly, important challenges and opportunities may best be considered from higher level or cross-institutional perspectives. Taking a broader quality-improvement perspective, Chapter 10 explores how institutions can use survey results to prompt change. It reviews development of

institution-wide approaches to student engagement, strategies for reporting what students have achieved, establishing benchmarking for continuous improvement, broadening staff involvement in student learning, enhancing student interactions with staff, establishing student expectations and monitoring quality data over time.

The 11th and final chapter concludes what we hope is the first in a series of books on this topic. It draws out nuances of the continuing and growing energy that drives investigations of student engagement. It hones this discussion around emerging directions for research-driven practice, and concludes by putting forward concrete next steps.

Conceptual Frames

Each contribution in this book is underpinned by the general outlook on student engagement explored above. While the initial conceptual explication of the phenomenon was undertaken in the USA, this has been adapted in ways that suit local contexts while maintaining fidelity to the shared 'cross-national' conceptualisation. As with other facets of collaboration, this has been accomplished through an ongoing process of collaboration and peer review. However, to illuminate and position subsequent chapters on the national instantiations, it is helpful to first sketch the core concepts that have seeded and driven the work. These ideas have been played out in different ways—even in the USA with the recently launched revision of NSSE—but the basic conceptual thrust remains the same.

As with any complex and fluid phenomenon, student engagement can be approached in many different ways. This is partly because the phenomenon resists theoretical reduction, because attempts to consolidate our understanding of the phenomenon are still unfolding, and because any understanding needs to essentially be situated by the context within which it occurs.

The conceptual frame given here marks out an appropriate, contemporary and compelling means of understanding student engagement. It derives from the five 'benchmarks of effective educational practice' established by NSSE:

- level of academic challenge,
- active and collaborative learning,
- student-faculty interaction,
- participation in enriching educational experiences and
- supportive campus environment.

As with much cross-cultural collaboration, exact terms have varied across contexts. As shown in the country chapters, in Australia the term 'scales' tends to be used over 'benchmark', as do 'Academic Challenge' and 'Student and Staff Interactions' rather than 'Level of Academic Challenge' and 'Student and Faculty Interaction'. We have retained the phrases used in each context to provide insight into the linguistic and other localisation processes that have occurred.

Although the five benchmarks are intended to represent distinct facets of effective practice, they clearly overlap. A supportive campus environment, for instance, is likely to be one that encourages interactions between students and staff, and students' participation in enriching education experiences. Active and collaborative learning would likely involve academic challenge. Nevertheless, each dimension speaks to an educationally salient, philosophically compelling and relatively distinct aspect of higher education.

While keeping such overlaps in mind, it is useful to bring out the main emphasis and distinctive nuances of each benchmark. Although the US NSSE framework was developed from decades of research into student learning and development, as part of the large-scale collection the framework has not been promoted via its theoretical and empirical underpinnings. One of the most useful approaches to capture the essence of each focus area is to work directly from the items used for their measurement and to tap into the conversations they have generated. The following analysis is adapted from Coates (2006). For reference to specific questions, see Appendix A of Chapter 2.

The 'level of academic challenge' area relates to students' engagement with academically challenging activities, and the extent to which institutions and teaching staff have supported such engagement. 'Academic challenge' is taken to involve students striving to operate at and push forward the frontiers of their knowledge. This may involve learning new material, or engaging in increasingly difficult activities.

Within this dimension, NSSE used items that focus on students' behavioural efforts and intentions to move their learning forward. They are asked how many hours they spent preparing for class, how often they worked harder than they thought possible to meet expectations, how much reading and writing they did and the instructional emphasis on analysing, sythesising, evaluating, and applying information or their knowledge. Such items suggest that academic challenge involves a good deal of reading and writing, spending a sufficient number of hours preparing for class, and working to convert information into knowledge and understanding.

In the 'active and collaborative learning' dimension, NSSE focuses on students' involvement in their learning through application and intellectual work with peers. While combined into a single cluster, 'active learning' and 'collaborative learning' represent two distinct educational ideas. In general, active learning is about students' participation in experiences which involve them constructing new knowledge and understanding. Collaborative learning, by contrast, involves students learning through appropriately situated course-related interaction about knowledge with their peers. From these expressions, it seems that active learning is a broader concept than collaborative learning. While people can learn actively by themselves without collaboration, collaborative learning would likely involve active engagement.

The questionnaire items used to operationalise the active and collaborative learning area measure how often students ask questions in class, make class presentations, work with peers inside and outside class, participate in course-related community projects and discuss curricular materials outside class. The items emphasise active collaboration rather than independent or intellectual forms of active

learning. As such, they really emphasise the situated or social constructivist learning that underpins the idea of engagement.

The 'student–faculty interaction' dimension focuses on students' one-on-one contact with instructors and to a lesser extent academic support staff, particularly beyond formal instructional environments. This benchmark is derived from evidence suggesting that direct individual interaction with faculty provides students with opportunities for developing mentoring relationships, for observing how academic staff approach and acquire new knowledge, for being exposed to target knowledge and for having the kinds of learning conversations that help students learn and develop.

These ideas are multifaceted, as reflected in the items within this area. The NSSE items focus on the frequency with which students discuss assessment processes and outcomes with instructors, meet with faculty beyond class to talk about course materials, receive prompt performance feedback and engage in broader forms of interaction with staff such as research, careers advice or non-coursework activities. The items tap activities that could be initiated by either students or staff. While they cover much substantive ground, they do not emphasise routine in-class interactions or administrative forms of contact. Rather, they pinpoint experiences likely to indicate deeper, broader and more formative pedagogical forms of contact.

The 'enriching educational experiences' dimension encompasses many of the broader experiences that students have around university, particularly those which occur outside of class. These kinds of experiences relate to qualities such as diversity and difference, as well as learning experiences that often prove to be deep and life-changing. Many of these experiences form the foundation of a developing movement in the USA to promote 'high-impact' educational practices (see Kuh 2008). Such experiences make learning more meaningful and, ultimately, more useful because what students know becomes part of who they are. While broad, these are the kinds of experiences and transformative outcomes that are often used to characterise university education.

The NSSE items illustrate the breadth of the idea of 'enriching educational experiences'. They do this by targeting the extent to which students interact at university with people from other backgrounds, study foreign languages, participate in study abroad, use technology in their learning, participate in integrated learning across classes, participate in co-curricular activities such as internships, field placements and volunteer work, and engage in culminating or summative work at the conclusion of a course of study. The items include behaviours that might lie beyond the formal curriculum, and thus with which students may engage irrespective of their course of study. While they are heterogeneous, perhaps even by their nature and purpose, they are intended to capture key ways that students take advantage of distinctive learning resources and opportunities afforded by the university environment.

The final NSSE cluster of items, 'supportive campus environment', focuses on the degree to which institutions engender conditions that are likely to make student engagement possible and, indeed, probable, and the ways they support and promote student success. This benchmark focuses more on students' perceptions of institutional provision, rather than on their actual behaviour. The object may be

institutions and their staff, but the emphasis is on how students perceive the support provided.

While universities can support students in many ways, NSSE items hone in on some of the most important ones. To what extent, for instance, do students see their environment as helping them cope with non-educational responsibilities, or as providing them with the support they need to prosper in their studies? Many people are involved in the educational process, however NSSE items focus on student relations with faculty, support staff and peers. Although other forms of social support and institutional infrastructure are no doubt enabling, NSSE highlights these key relationships as those necessary to promote successful learning.

The framework described here, developed for the US NSSE, is a powerful yet simple means for understanding student engagement. It was developed explicitly as a model of university quality through the lens of student engagement, framing different aspects of the student experience which research, over the years, has linked conceptually and empirically with productive learning. Importantly, it has disseminated and promoted the idea of engagement as a phenomenon with value for university faculty, managers and leaders. In important respects, the NSSE framework has organised and focused diverse conversations about the student experience around the concept of 'engagement' and, through this, enhanced the depth and utility of the concept.

After more than a decade of development, it appears that the NSSE framework remains the most advanced existing conceptualisation of the phenomenon. Indeed, as discussed in the closing chapter, NSSE has recently embarked on a new phase of development with a series of updates to the survey instrument and a new set of more narrowly targeted summary measures to succeed the benchmarks. But that work is beyond the scope of the present volume.

The NSSE benchmarks were developed specifically to provide levers for linking theoretically informed data collection with reform-minded action. Low levels of student–faculty interaction might provide immediate information on the pedagogical dynamics in an academic department. Low levels of academic challenge might hint that students in a particular course are not participating in the kinds of learning experiences or environments which are likely to consolidate and enhance their knowledge.

As these observations suggest, the NSSE framework was developed to satisfy the competing aims of being theoretically justified, empirically valid and operationally practical. As written in one of the project's early annual reports, the benchmarks were developed to be 'easy to understand and have compelling face validity', to 'empirically establish the level of student engagement in effective educational practices' and to 'represent student behaviors and institutional conditions that colleges and universities can do something about' (National Survey of Student Engagement 2001, p. 10). They have been found to be positively related to satisfaction and achievement on a wide variety of dimensions, and have sound psychometric properties (Kuh et al. 2001, 1997; National Survey of Student Engagement 2002). The framework provides a parsimonious response to the tensions which tend to drive large scale research and development.

Despite an overlap between the benchmarks, it is likely that the multidimensionality of the NSSE framework enables it to capture the necessary and sufficient components of engagement. Conversely, it seems unlikely that any meaningful coverage of engagement could be captured in a single benchmark. The multidimensionality promotes a system of checks and balances among the benchmarks. In sum, it presents a cogent distillation of the findings of many decades of research into the key qualities of how university students engage with their learning.

Looking Forward

We began this chapter with our analysis of what is, in our opinion, one of the more important facets of university education. We introduced broad rationales driving our interest in this phenomenon, surveyed international developments and touched on definitional and conceptual rudiments. We briefly introduced the international contributions that constitute the main part of this book leaving the details for subsequent chapters. Echoing the concept and work, we flagged our action-oriented approach to synthesising the contributions in the final chapters.

This book is intended to stimulate rather than conclude international research on student engagement. It is a growing field of practice, research and policy. As collections grow in scope and scale, the need for more analysis and discussion will surely grow. Hence, in many respects we see this book as setting foundations for others to follow. As you read each contribution, we invite you to consider the intellectual generalisability of the core ideas, and the culturally nuanced ways these have played out. We encourage you to imagine prospects for growth and refinement. The field is young, and still capable of radical change and development. How these ideas, and the activity and evidence they generate, yield even greater value for higher education is an area with boundless opportunities.

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Chapter 2
Refocusing the Quality Discourse: The United States National Survey of Student Engagement

Alexander C. McCormick and Jillian Kinzie

Introduction

The National Survey of Student Engagement, or NSSE (pronounced 'nessie'), traces its origins to longstanding frustration with the dominant discourse about quality in US higher education. The formal quality control mechanism for institutions of higher education is the accreditation process, a voluntary system rooted in self-study and external peer review that is carried out by a group of private, non-profit accrediting organisations. Accreditation is intrinsically valued by institutions because of its objective validation of quality. However, it is also important for a more instrumental reason: eligibility to receive funds from federal student financial aid programs—which provide significant support to students attending both public and private institutions—is contingent upon accreditation by an agency recognized by the US Secretary of Education. However, accreditation is not well understood by the general public, and the detailed findings from the accreditation process are confidential. Only formal actions taken (for example, the decision to grant, renew, or terminate an institution's accreditation, or place an institution on probation) are available to the public. In addition, the accreditation system has been faulted for a disproportionate emphasis on resources, capacity, and infrastructure over teaching and learning, and for insufficient attention to evidence that institutions achieve results consistent with their missions, especially with regard to student learning. However, in recent years, accreditors have increased attention to institutional procedures for assessing learning outcomes (for more information about accreditation in the USA, see Eaton; Ewell 2008).

A more visible and publicly accessible self-appointed arbiter of quality in the USA postsecondary education is the influential "America's Best Colleges" ranking conducted each year by *US News and World Report*. There are many complaints

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about the *US News* rankings, but one of the most commonly voiced ones involves its heavy emphasis on reputation and resources, and the related focus on inputs rather than educational processes and outcomes. There are also abundant technical and methodological objections, such as false precision of numerical rankings, arbitrary weighting of criteria and reliance on unaudited self-report. The ranking system was designed to largely reproduce the extant status hierarchy and attendant assumptions about quality, which explains its emphasis on reputation and selectivity rather than objective measures of teaching and learning (Thompson 2000). Kuh and Pascarella (2004) found that among the top 50 'national universities', the correlation between an institution's rank and its mean entrance examination score was −0.89, indicating that the prior preparation of entering students accounted for nearly 80 % of the variation in institutional standing. A further concern has to do with what one critic has called 'ranksteering' (Thacker 2008), in which institutions act strategically to improve their position by seeking to influence the measures used in the ranking calculations (for example, liberalizing what counts as an applicant so as to appear more selective, or increasing the importance of test scores in admission decisions to boost the institutional average).

The NSSE project was intended, in part, to shift the national conversation about quality to focus squarely on teaching and learning, and specifically on those educational conditions and practices shown by decades of research to be linked to student learning (Kuh 2001). 'Student engagement' refers to two critical features of undergraduate education. The first is the amount of time and effort students put into their studies and other educationally purposeful activities. The second is how the institution's resources, curricula and other learning opportunities support and promote student experiences that lead to success (e.g. persistence, learning, satisfaction, graduation). The latter feature is of particular interest, because it represents the institutional contribution to educational quality and is therefore subject to institutional intervention.

Administered each spring as a census or to randomly sampled first-year and senior-year (i.e. 'final-year') undergraduates at participating bachelor's degree-granting colleges and universities, NSSE assesses the extent to which students engage in and are exposed to a wide range of effective educational practices, such as collaborative learning, high expectations and prompt feedback on the part of instructors, and coursework that emphasizes higher-order thinking skills. A related survey called the Community College Survey of Student Engagement, operated by the Center for Community College Student Engagement at the University of Texas at Austin, is used at 2-year colleges, which offer sub-baccalaureate undergraduate training. In addition to shifting the conversation about quality in undergraduate education, another central goal of these projects is to provide information that faculty and administrators can use to assess and improve the quality of undergraduate education.

NSSE is not government sponsored or endorsed. Institutions elect to participate, though some state university systems mandate participation by their constituent campuses. A generous grant from the Pew Charitable Trusts financed NSSE's initial development and subsidized its first 3 years of full-scale operation. Following a year of testing, NSSE's first full-scale national administration was held in

2000, with 276 institutions participating (see Ewell 2010; Kuh 2009; McCormick et al. 2013 for fuller accounts of NSSE's origins). Signifying both the hunger for authentic measures of college quality that permit peer comparisons and increasing demands that colleges and universities undertake systematic and rigorous assessment of student learning and the conditions that promote it, NSSE participation has grown considerably. In 2013, 614 bachelor's degree-granting institutions in the USA and Canada participated and 1.6 million students were invited to complete the survey. Over its first 14 years of operation, 1,539 institutions in the USA and Canada administered NSSE at least once. Repeat participation is high, with about 90 % of participating institutions administering the survey at least twice within 4 years. The project has been fully self-supported by institutional participation fees since 2004.

Designed by a panel of prominent experts in undergraduate education and survey research, the NSSE survey can be completed in about 15–20 minutes Institutional personnel assemble and submit population files containing student identifiers and contact information for all first- and final-year students. The Indiana University Center for Survey Research (CSR) handles all aspects of survey administration in close collaboration with NSSE project staff. Institutions have the option to customize the content and signatory of survey invitation and follow-up messages so as to encourage participation, subject to compliance with NSSE protocols for research involving human subjects. The submission of population files, customization of recruitment messages, monitoring of survey administration and retrieval of data files and reports all take place through a password-protected online interface.

Random sampling or census administration, combined with standardized administration procedures, is one of the essential components. They maximise the comparability of results across institutions, which permits legitimate comparisons of results across institutions, as well as aggregate estimates by institution type or by student sub-population.

NSSE Resources

The version of the NSSE questionnaire in use through 2012 (an updated version was launched in 2013) includes 85 items inquiring into students' experiences and activities inside and outside the classroom; the cognitive tasks emphasised in their courses (memorisation, analysis, synthesis, judgment and application); perceived quality of relationships with other students, faculty and administrative staff; allocation of time across a range of activities (preparing for class, working for pay, relaxing and socializing, and so on); perceptions of institutional emphases (for example, spending time on academic work, providing academic and social support, and encouraging contact among students from different backgrounds); students' self-assessed gains in learning and personal development in several domains; and satisfaction with advising and with the institution overall. The survey includes an additional set of items on students' background and enrollment characteristics as well as other contextual information such as college major and type of residence.

The survey instrument can be viewed online at http://nsse.iub.edu/links/surveys. Survey responses are weighted by gender and enrolment status (full- or part-time) to adjust for differential response patterns, producing institution-level estimates that reflect first- and final-year populations. Aggregate reporting also includes adjustments to compensate for variations in institutional response rates, and to preserve appropriate representation for institutions of varying sizes.

Participating institutions receive detailed reports on their students' responses, alongside results for students in three customizable institutional comparison groups (drawn from other institutions participating in the same year), annotated with statistical tests of difference and effect sizes. In addition, institutions receive an identified student data file, permitting the linkage of student responses to other institutional records to facilitate more complex and nuanced analyses. Institutions also receive a wealth of materials to assist in the interpretation and use of their results.

The NSSE project issues an annual report that documents the state of student engagement on a national scale, calling attention to both promising and disappointing findings, providing examples of how institutions are making productive use of their NSSE data and promoting effective educational practices. The *Annual Results* report provides an occasion for media attention, and it is an important means of advancing the national conversation about college quality. Examples of these materials are available at http://nsse.iub.edu.

To assist institutional users and others in managing and making sense of the large volume of data collected, NSSE divides 42 survey items into 5 clusters of related items, or 'benchmarks of effective educational practice', that tap into distinct dimensions of educational quality: level of academic challenge, active and collaborative learning, student–faculty interaction, enriching educational experiences and supportive campus environment. Each benchmark is reported on a 100-point scale to facilitate interpretation, and the five benchmarks are reported separately for first- and final-year students. A score of 100 on any benchmark, for instance, would signify that every respondent selected the highest possible response on each of the component survey items, while a score of zero would mean that every respondent chose the lowest option on every item. These benchmarks and their component survey items are listed in Appendix A. (The 2013 update of the NSSE survey was accompanied by changes in the data reduction scheme described here.)

United States colleges and universities vary considerably in their capacity to undertake assessment programs and interpret the results. Some institutions—especially large ones—have well-staffed institutional research offices with considerable analytic expertise, while others have little or no infrastructure and analytic capability for this work. Some have characterized NSSE as 'institutional research in a box', meaning that participation provides any institution with a relatively sophisticated analysis of teaching and learning processes, with national and peer comparisons. The NSSE Institute for Effective Educational Practice (the NSSE Institute hereafter) offers further assistance for data interpretation and application through regional workshops, webinars and individual consultations. The NSSE Institute has also developed a number of print resources to assist institutions in making effective use of their NSSE results. Many concrete examples of such uses have been documented in NSSE's annual reports and in a report series called *Lessons from the Field*.

Reflecting NSSE's goal to shift public understanding of college quality, the NSSE Institute also produces a short brochure called *A Pocket Guide to Choosing a College*, designed for use by high school students, parents and counsellors (see: http://nsse.iub.edu/html/pocket_guide_intro.cfm). The *Pocket Guide* recommends questions that prospective students should ask during campus visits—questions that emphasize student engagement. NSSE participating institutions receive a companion report that shows how their NSSE respondents answered those questions.

As noted earlier, quality assurance in the USA is formally provided through the accreditation system. Because many accreditors now have standards related to assessment processes and learning outcomes, institutions are interested in incorporating their NSSE results into the self-study reports that are part of the accreditation process. Responding to this need, the NSSE Institute developed a series of 'Accreditation Toolkits' that illustrate how selected items from the NSSE survey map to the standards of various accrediting bodies.

The NSSE project has also developed several companion surveys, including the Faculty Survey of Student Engagement (FSSE) and the Beginning College Survey of Student Engagement (BCSSE), both of which are designed to complement NSSE. FSSE asks faculty members about their expectations of student engagement in educationally effective practices, and it provides a useful way to bring faculty members into meaningful conversations about NSSE results and how to improve teaching and learning. BCSSE provides baseline data on entering students' engagement behaviour in high school and their expectations for engagement during the first year of college. BCSSE results can be used in tandem with NSSE to assess the first-year experience (for example, to examine actual first-year engagement relative to expectations).

Using NSSE Results to Inform Improvement

From its inception, NSSE was designed as a diagnostic tool to facilitate improvement in undergraduate education. Because questionnaire items are drawn from college impact research and are expressly connected to principles of good practice in undergraduate education (Chickering and Gamson 1987; Pascarella and Terenzini 1991, 2005), they are educationally meaningful and highly actionable. NSSE results provide participating institutions with accessible information about strengths and shortcomings in the undergraduate experience and point to practices worth bolstering to promote student engagement. For example, results indicating that low proportions of first-year students collaborate with their peers in class or receive prompt feedback about their performance may immediately suggest the need for greater opportunities for collaborative learning in first-year courses and for more timely feedback. They may prompt faculty development workshops on collaborative learning, the use of peer evaluation techniques and the importance of prompt and meaningful feedback, targeted at faculty teaching first-year courses. In addition, knowing that first-year students who experience these practices to a lesser extent than their counterparts at peer institutions might strengthen the case for institutional action. NSSE presents results so as to facilitate such practical uses.

The importance of taking action on results is a prominent aspect of the NSSE project. Indeed, assessment can only be a worthwhile undertaking when meaningful data are generated and evidence-based improvement initiatives are thoroughly considered and implemented, so that results are ultimately used to improve educational effectiveness. Each year, more campuses use their NSSE results in innovative ways to improve the undergraduate experience. Institutional accounts of data use, chronicled in publications including *Annual Results* and *Lessons From the Field* and compiled in a searchable online database, provide instructive lessons for maximising the use and impact of NSSE results. In addition, a 2009 edited volume provides a number of examples focused around the use of student engagement results in institutional research (Gonyea & Kuh 2009). Colleges and universities have found many productive ways to use survey results in their assessment and improvement initiatives including efforts to document quality and demonstrate accountability, accreditation self-studies, quality improvement projects, strategic planning, program review processes and faculty and staff development activities.

Although there are many ways institutions can use NSSE results, this section highlights brief institutional examples from three major areas: regional accreditation and quality improvement; increasing student retention and improving the first-year experience; and enhancing opportunities for effective educational practice.

Georgia State University (GSU) used NSSE results in the preparation of its Quality Enhancement Plan (QEP) for reaccreditation by the Southern Association of Colleges and Schools (SACS). NSSE data revealed that, when compared to other institutions with the same Carnegie classification, GSU final-year students wrote fewer short papers and felt their undergraduate experience did not contribute as much to their critical thinking abilities. Members of the QEP team corroborated these findings with an internal survey administered to recent graduates that measures learning outcomes and academic program satisfaction. These findings informed a plan to improve students' critical thinking and writing skills in their major field of study.

Illinois College participated in several NSSE and FSSE administrations, yet results did not get much attention. It was not until the College found that student retention rates were about to fall below acceptable levels that the NSSE results were brought into prominence. The College formed an early intervention task force to address retention concerns and conducted a student engagement retreat during which faculty and administrators reviewed NSSE results and focused on NSSE–FSSE comparisons to expose gaps between student survey responses and faculty perceptions. The retreat agenda led with the idea that Illinois College was doing well, but that improvement was needed. The retreat spurred small but important structural changes in courses; for example, faculty added more opportunities for students to make presentations and collaborate with their peers in and out of class and provided more explicit rationale for assignments in their syllabi. Another outcome from the retreat was the need to create a more supportive campus environment. Illinois College outlined an approach, based on the importance of relationships among faculty, staff and students. It deployed faculty, advisors and coaches to reach out when students were in trouble and advise students about educational practices that would help them get back on track. The College also

implemented a unified academic support center, making it easier to deploy tutoring and supplemental instruction, and improved advice to help students make a successful transition in the critical first year. Since implementing these changes, there has been a decline in the number of students in academic difficulty at mid-term and more students earn at least 20 credits in the first year. In addition, a year after implementing these practices, the College saw an increase in its NSSE supportive campus environment score. This early feedback helped demonstrate that changes were having the desired impact and motivated further action.

Tulane University used its NSSE results related to students' expectations for and involvement in service-learning, undergraduate research and internships, plus other indicators of students' interest in public service and research, to justify a new Center for Engaged Learning and Teaching (CELT). Growing out of Tulane's recognized strength in public service and service-learning, as well as students' keen interest in engaging in public service programs, CELT serves as the hub for fostering experiential learning and providing opportunities for more students and faculty to participate in meaningful experiences that complement their academic and career goals.

Many NSSE users report that sharing NSSE results on campus has helped foster a data-informed culture, encouraged more frequent discussions about assessment results and facilitated collaboration to address deficiencies in the undergraduate program. Paying attention to data and research on best practice can help advance institutional improvement. What institutions *do* in response to what they learn from their NSSE results is a critical element of NSSE's institutional improvement agenda.

Selected NSSE Findings

NSSE's *Annual Results* reports, available on the NSSE website, document what has been learnt about student engagement over NSSE's first decade. Following is a brief summary of some of these findings.

An important set of findings documents the disproportionate positive impact of engagement for different student populations. With support from the Lumina Foundation, NSSE undertook a research project to examine the relationship between student engagement and selected indicators of success in the first year of college (Kuh et al. 2008). Nineteen institutions provided data on first-year college grades and also on which students returned for the second year. In addition to documenting a positive relationship between engagement and these outcomes, the research revealed differential effects for different student populations. Engagement was found to have a stronger positive effect for students with lower levels of performance on a college entrance examination. The research also found that the positive relationship between engagement and propensity to re-enrol was stronger for ethnic minority students compared with their White counterparts. These findings are particularly important in light of increasing rates of postsecondary participation in the USA by under-prepared students and students from historically under-represented groups, as well as related national priorities to improve levels of learning and degree attainment.

Another important set of findings used BCSSE data to examine predisposition to engagement in college based on engagement behaviour during high school. Not surprisingly, the analysis revealed a relationship between high school engagement and engagement during the first year of college. But there were departures in both directions, suggesting that 'disposition is not destiny', and that there was a potential to increase college-level engagement above what would be expected based on high school experiences (National Survey of Student Engagement, 2008). Another important strand of this work examined students' stated intent to re-enrol for the second year relative to both engagement disposition and actual engagement. Here, the important finding was that those who were highly engaged during college were more likely to intend to return compared with those with low levels of engagement *regardless of their engagement disposition based on high school experiences*. In other words, actual engagement trumps engagement disposition in predicting intent to return (National Survey of Student Engagement 2008).

In 2009, after NSSE's tenth national administration, project staff undertook an examination of institutions that had administered the survey multiple times to investigate institution-level patterns of change in student engagement. A simple but important question was asked: Do NSSE data show any evidence of improvement in the prevalence of effective educational practices? NSSE data for more than 200 institutions that had administered NSSE at least four times between 2004 and 2009 were examined. Three-quarters of the subject institutions had administered the survey five or six times. (The analysis began with 2004 due to changes made in the NSSE survey during its first few years.) The results revealed an appreciable share of institutions with detectable positive trends over at least four administrations, and only a handful with negative trends. Forty-one per cent of institutions in the analysis of first-year engagement showed at least one positive trend, as did 28 % of those in the analysis of engagement among final-year students (National Survey of Student Engagement 2009). Importantly, the positive trends were not confined to specific institutional types (for example, small private colleges). Rather, improvement trends were found across a wide spectrum of institutional difference. In a follow-up study, with support from the Spencer Foundation, the authors engaged in a systematic investigation of institutions with positive trends to discern valuable lessons about how to effect positive change.

The findings outlined here and other results highlighted in NSSE *Annual Results* reports provide insights about the state of effective educational practice in US higher education and also offer valuable information for participating institutions.

With support from the Lumina Foundation for Education and the Center for Inquiry in the Liberal Arts at Wabash College, NSSE founding director George Kuh and colleagues carried out the Documenting Effective Educational Practice (DEEP) project. This work involved the identification of a number of institutions with higher engagement scores than expected, given their circumstances (size, student body characteristics, etc.). Twenty institutions were identified for intensive case study research to illuminate what accounts for their effectiveness. The DEEP researchers summarized their findings in their influential 2005 book (updated in 2010), *Student Success in College: Creating Conditions that Matter* (Kuh et al. 2005). In it,

they identify and describe in detail six common features seen as promoting student engagement and success at the 20 campuses: 'a "living" mission and "lived" educational philosophy; an unshakeable focus on student learning; environments adapted for educational enrichment; clearly marked pathways to student success; an improvement oriented ethos; [and] shared responsibility for educational quality and student success' (p. 24). This project illustrates how NSSE results not only support improvements at individual institutions, but also lead to valuable insights that can inform the broader conversation—among researchers and practitioners—about educational effectiveness.

The Complications of Public Reporting and Accountability

Although NSSE was developed in part as a response to newsmagazine rankings, early in its development it became clear that most institutions would agree to participate only on the condition that their results would not be made public. This reflects at least three distinct but related factors or dynamics. First is the inherent diversity of US higher education: about 2,500 public and private baccalaureate degree-granting institutions with distinct structures and missions, and considerable variation in their student populations with respect to such factors as age, residential situation (on-campus versus commuter), quality of prior preparation, socio-economic status and life circumstances. Many feared that public reporting of results would lead to inappropriate comparisons that would only reproduce the unfortunate consequences of the rankings, in which the wealthiest and most selective institutions reap the greatest rewards, while those institutions seeking to extend opportunity to less fortunate and less well-prepared students would be punished for pursuing this mission.

A second dynamic, related to the first, is the heightened sensitivity that exists around any third-party comparisons. This is attributable in part to the rankings, but it also reflects institutional leaders' desire to 'control the message' about performance and success that can affect their institutions' access to valued resources, both human (students and faculty) and financial (support from individuals, charitable organisations, and government).

The last factor behind the preference for confidentiality involves the tension between improvement-motivated diagnosis and accountability-motivated performance reporting. Improvement-motivated diagnosis requires a frank assessment of strengths and weaknesses, and its findings target interventions to improve performance. Such a candid diagnosis presupposes a genuine desire to improve and the consequent need for 'the unvarnished facts' (i.e. information that is accurate, unbiased, and actionable). When the diagnosis is confidential, the improvement interests of policy makers, students and institutional actors are in close alignment, and evaluation by an objective outside party is particularly valuable. This is different in the case of accountability-motivated performance reporting, and this alignment is much more difficult to achieve. Because unsatisfactory performance can result in punitive actions or externally imposed directives, institutional leaders who want to preserve

resources and autonomy will not be enthusiastic about candid and objective assessments (Ewell 1999). Indeed, such assessments can be very threatening. As noted above, leaders in this situation can face powerful incentives to control the message about performance, accentuating the positive, while avoiding or downplaying the negative.

Although the NSSE project does not publicize institution-specific results, participating institutions are at liberty to release them, and public institutions are typically obliged to do so under the so-called 'sunshine' laws. Making information available is not necessarily the same as making it readily accessible, yet many institutions have elected to publish their NSSE results on their websites. Systematic data on the public dissemination of NSSE findings do not exist, but Google searches on the phrases 'NSSE data', 'NSSE findings' and 'NSSE results' limited to web addresses in the '.edu' domain yielded some 15,000 hits after removing results from Indiana University domains that host project-related sites (searches conducted November 27, 2011). In addition, about 45 % of institutions that had administered NSSE within a 3-year window opted to share their benchmark results with the national daily newspaper *USA TODAY* for use in an online database designed for prospective students and their families.

Accountability has been an enduring issue in the US higher education, and in recent years it has emerged as a major concern on the part of policy makers. NSSE was not created as an accountability tool, but it has received considerable attention in the accountability discourse. In its 2006 report, *A Test of Leadership,* the US Secretary of Education's Commission on the Future of Higher Education (the so-called Spellings Commission) stated:

> Colleges and universities must become more transparent about cost, price, and student success outcomes, and must willingly share this information with students and families… This information should be made available to students, and reported publicly in aggregate form to provide consumers and policymakers an accessible, understandable way to measure the relative effectiveness of different colleges and universities. (Commission on the Future of Higher Education 2006)

NSSE was identified in the report as one of four 'examples of student learning assessments' (another one being NSSE's community college counterpart). As the Spellings Commission was engaged in its work, the two largest national associations representing public 4-year institutions, the American Association of State Colleges and Universities and the National Association of State Universities and Land Grant Colleges (now called the Association of Public and Land-grant Universities), launched a significant accountability initiative, motivated in part by a desire to forestall a government-imposed system. The resulting 'Voluntary System of Accountability' (VSA) provides a standard template for public colleges and universities to report a range of descriptive and performance information from specified sources. NSSE is one of four possible sources of information that participating institutions can use for the 'student experiences and perceptions' section of the template and most institutions participating in the VSA have opted to report NSSE results (for more information on the VSA, see: www.voluntarysystem.org).

Challenges Going Forward

Despite the considerable achievements of its first 13 years, NSSE faces a number of challenges. Naturally, the project is dependent upon students to complete its surveys, and the credibility of results depends on both representativeness and adequate response rates. Overall, NSSE respondents are sufficiently representative to provide population estimates after weighting to account for the over-representation of women and full-time students among respondents. Response rates have been a greater challenge. In NSSE's early years, institutional response rates averaged about 42 %, but in recent years, the average has dropped as low as 30 %. The response rate challenge is not unique to NSSE, of course. In part, due to increased accountability and accreditation pressures, college students are more aggressively surveyed and tested than ever before. In addition, new web-based survey tools have dramatically reduced the financial and technical barriers to entry by anyone who wishes to survey students. As a result of these pressures, virtually all undergraduate survey operations have witnessed a decline in response rates among this heavily-surveyed population. NSSE institutions have employed a combination of promotional campaigns and participation incentives to boost response rates, but the results have been mixed. Although analyses of non-response have generally shown little evidence of bias, low response rates remain a cause of concern and a convenient basis for challenging or rejecting disappointing results. Alternative approaches to survey administration that would address the response rate challenge have been considered, but they involve trade-offs that, to date, have been deemed unacceptable. Offsetting the decline in response rates has been the increasing use of online administration. This has afforded substantial increases in institutional sample sizes, with a consequent reduction in sampling error.

While it is gratifying to see media attention on the NSSE project and calls for its wide adoption, there are associated risks. One is the possibility that, as NSSE gains wide acceptance, institutions may adopt it as a matter of compliance or legitimacy-seeking behaviour rather than out of a genuine desire for evidence-based improvement. Thus, mere participation in NSSE is not sufficient evidence that an institution is committed to the improvement of teaching and learning. More important is what institutions are *doing* in response to what they learn from NSSE. This is one reason why the project gathers and publicises information about how colleges and universities are making constructive use of their NSSE results.

Another aspect of media attention is frequent calls to make the data public. In their extreme form, these appeals argue that NSSE results should be the basis for a new, better ranking system. While many institutions have already made their results public, there are several ways that compulsory release of results could do more harm than good. In one version, the public relations cost of participation would exceed the diagnostic benefit, and many institutions would simply opt out. Another way the situation could go wrong would be if NSSE results themselves come to define the institutional pecking order. In this version, students' survey responses would determine their institution's position and, by extension,

the value of their degree. Students would be tempted to respond strategically so as to enhance their school's standing, and as a result confidence in student survey responses—fundamental to the project's work—would be severely undermined (McCormick 2007).

Another challenge—one that is exacerbated by the emphasis in the accountability discourse on institution-level performance measures—is the importance of examining within-institution variation in student engagement. Despite strong interest in comparing institutional performance, the fact is that 90–95 % of the variation in NSSE benchmark scores occurs between students within institutions, rather than between institutions (Kuh 2007; National Survey of Student Engagement 2008). This complicates appealing but simplistic notions of institutional performance. But even a cursory examination of the elements of engagement—what students do in and out of class, the nature of their coursework, their interactions with faculty and other students—reveals that fundamentally, engagement manifests itself at the individual level (student effort and activity in the context of particular courses) or at best among small collectives (e.g. among peer groups and by academic major). This is not to say that institutions cannot introduce policies and practices that promote engagement (Kuh et al. 2005). However, it is wrong to think of engagement as a phenomenon that occurs at the institutional level. A significant imperative for the NSSE project going forward is to find compelling ways to document within-institution variation and to discourage an exclusive focus on measures of central tendency.

Currently, the dominant mode of interpreting NSSE results is relative to a comparison group. However, that is only one of three possible comparisons. The other two are trend analysis (comparing an institution against itself over time) and comparisons against an absolute standard. Now that a critical mass of institutions has administered the survey at least three times, the project has developed reports and guides to assist institutions in examining trends in their results. In some cases, it may also be important to assess results against an absolute standard. For example, a fairly consistent finding from NSSE is that students report spending considerably less time preparing for class than what is typically expected or assumed. In such cases, positive results relative to other institutions (above the mean or even in the top quartile or quintile) may not be sufficient.

Examining the list of institutions that have participated in NSSE over the years, there are some notable absences. The most elite private research universities have yet to participate. In one sense, this is not a serious problem because they serve such a small proportion of the undergraduate population. On the other hand, however, it may be a problem, because the elite institutions lead what David Reisman called 'the meandering procession' of US higher education, and in that sense what they do matters. Several elite public research universities have participated, as have several elite private liberal arts colleges, but the most elite and selective private universities have been conspicuously absent. Whether this signifies supreme confidence in their educational quality, or concerns about the survey itself and its relevance or possible revelations, is hard to speculate. When Harvard president Derek Bok, author of the 2006 text *Our Underachieving Colleges* and past member of NSSE's national

advisory board, was asked at a symposium on student success why Harvard does not participate, he cited the absence of comparable institutions.

While many members of the research community have embraced NSSE's goals and made effective use of the data (for example, see Pascarella et al. 2010), NSSE has been the subject of occasional conceptual and methodological critique by higher education researchers. Two themes dominate. One involves the validity of college student surveys in general, and NSSE in particular. The critique focuses largely on criterion validity, with little regard for how NSSE results are actually used (i.e. to make comparisons among groups, and not to provide precise point estimates of, for example, students' college grades, the number of papers written or objective learning gains). Because of the implied tension between what is ideal from a purist's perspective and what is achievable given practical constraints, the validity critique is emblematic of the gap that can exist between the worlds of research and practice, a gap that NSSE itself seeks to fill (see McCormick et al. 2013; McCormick and McClenney 2012).

The second strand of critique involves the validity of NSSE's data reduction scheme, the Benchmarks of Effective Educational Practice. The primary objection here involves the psychometric qualities of the benchmarks and that they do not represent unitary constructs. While the details are beyond the scope of this chapter, interested readers may wish to consult Campbell and Cabrera (2011), McCormick and McClenney (2012) and Pike (2013).

A final and important point to remember is that student engagement as assessed by NSSE is not a 'magic bullet'. For virtually all of the effective practices represented in the survey, there is a hidden quality dimension that cannot reasonably be assessed in a large-scale survey. In other words, NSSE is neither the only source nor the best source for assessing educational quality. However, it is a useful and significant first step toward a data-informed discussion of quality in undergraduate education. On countless campuses, NSSE has demonstrated that its most powerful contribution may be as a conversation starter, or as a catalyst for more intensive, varied and nuanced efforts to examine educational effectiveness.

Concluding Comments

Examining student engagement offers a promising response to two vexing problems. The first is the poverty of discourse about quality in higher education, where dominant conceptions revolve around reputation, resources or research prowess rather than undergraduate teaching and learning. The second problem is the lack of consensus around how to assess the quality of teaching and learning in higher education. Direct observation of educational quality confronts considerable conceptual and practical obstacles. Generic or subject-specific educational outcomes can be measured, but these enterprises are complicated and costly, and it is not necessarily straightforward to translate the results into specific prescriptions for

the improvement of teaching and learning. By examining students' exposure to and engagement in practices with empirically confirmed links to desirable learning outcomes, assessment work can be concentrated on those aspects of educational practice that are vital elements of educational quality. Armed with this information, practitioners can design interventions to improve quality, and thereby improve outcomes.

Appendix A: NSSE Benchmarks of Effective Educational Practice

Level of Academic Challenge

- Number of assigned textbooks, books or book-length packs of course readings
- Number of written papers or reports of 20 pages or more
- Number of written papers or reports between 5 and 19 pages
- Number of written papers or reports of fewer than 5 pages
- Coursework emphasizes analyzing the basic elements of an idea, experience or theory, such as examining a particular case or situation in-depth and considering its components
- Coursework emphasizes synthesizing and organizing ideas, information or experiences into new, more complex interpretations and relationships
- Coursework emphasizes making judgments about the value of information, arguments or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions
- Coursework emphasizes applying theories or concepts to practical problems or in new situations
- Worked harder than you thought you could to meet an instructor's standards or expectations

Active and Collaborative Learning

- Asked questions in class or contributed to class discussions
- Made a class presentation
- Worked with other students on projects during class
- Worked with classmates outside of class to prepare class assignments
- Tutored or taught other students (paid or voluntary)
- Participated in a community-based project (e.g. service learning) as part of a regular course
- Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

Student–Faculty Interaction

- Discussed grades or assignments with an instructor
- Discussed ideas from your readings or classes with faculty members outside of class
- Talked about career plans with a faculty member or advisor
- Received prompt feedback from faculty on your academic performance (written or oral)
- Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)
- Worked on a research project with a faculty member outside of course or program requirements

Enriching Educational Experiences

- Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values
- Had serious conversations with students of a different race or ethnicity than your own
- Institutional emphasis: contact among students from different economic, social and racial or ethnic backgrounds
- Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment
- Participation in:
  - Co-curricular activities (organisations, campus publications, student government, social fraternity or sorority, intercollegiate or intramural sports, etc.)
  - A learning community or some other formal program where groups of students take two or more classes together
  - Community service or volunteer work
  - Foreign language coursework
  - Study abroad
  - Practicum, internship, field experience, co-op experience, or clinical assignment
  - Independent study or self-designed major
  - Culminating senior experience (capstone course, thesis, project, comprehensive exam, etc.)

Supportive Campus Environment

- Institutional emphasis: Providing the support you need to thrive socially

- Institutional emphasis: Providing the support you need to help you succeed academically
- Institutional emphasis: Helping you cope with your non-academic responsibilities (work, family, etc.)
- Quality of relationships with other students
- Quality of relationships with faculty members
- Quality of relationships with administrative personnel and offices

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Chapter 3
A Canadian Perspective on Student Engagement

Ken Norrie and Chris Conway

Introduction

Since its initial Canadian administration in 2004, the National Survey of Student Engagement (NSSE) has fundamentally changed the conversation in Canadian postsecondary education. More recently, it has begun to assume a pivotal role in institutional research, academic planning and sector accountability. Certainly, those involved directly with NSSE—mainly institutional analysts and a handful of academics—have done more than converse. They have conducted research on engagement concepts and explored a range of engagement implementation strategies using NSSE survey results. The gradual extension of this interest to those outside the circle of NSSE practitioners—faculty members, academic administrators and government funders—reflects the embedding of engagement into Canadian postsecondary culture, policy and strategy.

We begin this chapter with a brief review of the postsecondary education sector in Canada and the issues it faces. We then describe the process through which NSSE was introduced in Canada, and through which it came to be administered by the majority of university-level education providers. Next, we describe the main findings of the initial engagement surveys and the reactions and responses of the various stakeholders to the results. These findings and reactions prompted a number of research projects that we describe in the subsequent sections. We conclude by speculating on future developments in Canadian engagement-based research and implementation activity.

Our observations are, perhaps inevitably, more focused on Ontario where we are both located than on Canada as a whole and to some extent reflect our personal experiences rather than a comprehensive review of all NSSE activity in Canada.

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Background on the Canadian Postsecondary Education Sector

Postsecondary education in Canada is the constitutional responsibility of each of its ten provinces (and in a different way, its three northern territories) and differs significantly among jurisdictions. The provincial systems consist of provincially funded universities, community colleges and (in several provinces) special-purpose educational institutions. Private institutions are licensed but not funded by the provinces and include a few special-purpose universities, several faith-based institutions, a large number of trades and career colleges and a handful of offshore providers. Postsecondary institutions do not undergo a formal accreditation process as they do in the United States.

In provinces where the university and community college sectors are fairly distinct, colleges primarily offer programmes leading to certificates, diplomas and trade certification, with a few delivering university transfer (UT) courses (i.e. courses that universities accept for credit as part of degree programmes), specialised degrees and/or formal joint programmes with university partners. In other provinces, a far greater degree of integration between colleges and universities exists. In these instances, most colleges offer a wide variety of UT courses in addition to certificate and diploma programmes. Students can generally complete two full years or more of university-level coursework and transfer credits within-province to a university. The high volume of UT course and programme delivery in several such colleges has resulted in their recent designations as university colleges or independent universities.

The Province of Québec is unique within the Canadian postsecondary sector. Students attend a secondary school for 3 years and then enter a CEGEP (Collège d'enseignement général et professionnel) for 3 years in either a trades/technical stream or university preparatory stream. The latter group of students proceeding on to a Québec university complete a degree in 3 years of study (rather than the normal four elsewhere in Canada), either at one of the nine institutions in the Université du Québec system or at one of the province's other Francophone or Anglophone universities.

The Federal Government provides various forms of support to postsecondary institutions through: the funding of research grants (primarily through three Federal granting councils and the Canada Foundation for Innovation); establishing and funding the Canada Research Chairs programme; providing scholarship and fellowship support to graduate students via granting councils and other agencies; participating in and co-funding apprenticeship training programmes; and co-funding student aid programmes with the provinces.

Public university-level education providers across Canada confront a number of common issues to varying degrees depending on their location, size, mission and individual circumstances. Many of these have direct or indirect implications for engagement research and practice. First, institutions operate within a public policy framework that includes concern for aboriginal participation and graduation rates;

first generation participation; global competitiveness and innovation objectives as relating to access, programme design and research; and international trade and development.

Second, without exception, public institutions in Canada have experienced real (i.e. after inflation) declines in operating income per student over the past few decades as the result of either grant restrictions, tuition regulation or both. The operating income situation plays out differently in each province. In some, postsecondary enrolment continues to grow in response to increasing population and participation rates, while others are experiencing demographically driven declines in enrolment.

Third, smaller institutions and recently established universities are seeking to either establish or enhance their research profiles. About two-thirds of all Canadian university research funding and about the same proportion of graduate enrolments are housed within the U15 group of universities (U15 is an association of the 15 most research-intensive universities in Canada as measured by research funding and graduate enrolment). While the U15 and other research-intensive universities seek to achieve balance between 'competing' research and teaching and learning objectives for their students, smaller institutions appear focused on increasing both research income and graduate enrolment in order to establish a foothold within the research sector.

Fourth, Canadian postsecondary institutions and their government funders are increasingly focused on issues of quality and learning outcomes assessment. For institutions, these concerns are reflected in part in their search for direct evidence of learning outcomes to supplement labour market and other indicators. For government funders, the issue is one of accountability consistent with that required of other publicly funded agencies, and ensuring that the *quality* debate aligns with efficiency and economic development objectives.

The Adoption of NSSE in Canada

Throughout the 1980s and 1990s, public sector spending came under increasing scrutiny as the financial situations of provincial governments deteriorated. Provincial governments required postsecondary institutions to provide more and more evidence of efficiency and effectiveness. In some provinces (British Columbia, Alberta and Ontario), these requirements grew into standardised key performance indicator (KPI) reporting procedures, measuring such factors as retention and graduation, postgraduation employment, student loan default rates and student, graduate and employer satisfaction. Capitalising on the inevitable desire to compare institutions, various media organisations (Maclean's magazine, the first in the field, has been joined by the Globe and Mail newspaper, Research InfoSource, Canadian Business and others) began to publish university or programme-specific rankings built on KPIs and such measures as class sizes, research income, operating expenditures on libraries and student services, reputation and student admission averages.

By the year 2000, universities had become increasingly concerned that these various published *quality* measures (as they were widely seen) were neither reliable nor helpful on a number of levels. These measures did not account for variation in institutional missions and circumstances; were primarily indirect or input measures that hinted at, but did not really demonstrate quality; were largely outside the control of the institution and therefore not something universities could be accountable for; and most importantly, said little about key dimensions of the student learning experience. While many institutions conducted student surveys to measure satisfaction and other elements of the student experience (including the Canadian University Survey Consortium (CUSC) survey in which many Canadian universities continue to participate), and although most developed and attempted to improve on their own institution-specific quality indicators, these activities played no consistent part in, and received less exposure than, official KPI reports and media rankings. The environment was ripe for new tools that would demonstrate learning quality and provide a basis for institutional effort to address it.

Shortly after the United States launch of NSSE in 2000, a number of Canadian institutional researchers began to discuss what appeared to be a promising new opportunity to 'measure what mattered' to the student learning experience: student–faculty interactions (rather than class sizes), integration of research in the classroom (not total research income) and institutional support to student academic and social needs (not service expenditures). In 2003, participation in NSSE was discussed within the G10 Data Exchange (the G10 group of universities is the forerunner of the U15 group introduced earlier).

Following discussions with NSSE staff to 'Canadianise' several questions, eight of the G10 member institutions acting as a NSSE consortium, and three other Canadian universities acting independently, participated in the 2004 round. A French translation of the instrument was completed in time for the 2006 administration, enabling broader participation of bilingual and Francophone institutions. Participation peaks in 2006, 2008 and 2011 reflect both an agreed-upon schedule of participation by Ontario universities (as a component of accountability arrangements with the Ontario Government) and a desire by non-Ontario institutions to align their participation to maximise opportunities for comparative Canadian analysis.

At completion of the 2012 round, 78 Canadian institutions in ten provinces (including affiliated institutions, satellite campuses and colleges offering university-level programmes) had administered NSSE 236 times, or an average of three times per institution. The participating institutions constitute the majority of the members of the Association of Universities and Colleges of Canada (AUCC), the national association of university-level institutions.

What NSSE Revealed and How It Was Received

The initial and subsequent administrations of NSSE revealed a number of intriguing engagement patterns. These patterns achieved widespread attention within and beyond the university community.

Engagement Patterns

The central finding from the first few Canadian NSSE administrations was the large differences between Canadian and American Student-Faculty Interaction (SFI) and Active and Collaborative Learning (ACL) benchmark scores. Canadian ACL and SFI benchmarks fell into the lowest portions of the United States distributions for both first-year and senior-year students, while other benchmarks were generally 90 % as high as those in the United States (Canadian benchmark scores reflect eight research-intensive universities in 2004 and all Ontario universities in 2006, 2008 and 2011; Ontario scores are indicative of Canada-wide scores). This pattern has persisted over repeated administrations of NSSE, despite changes in the participating institutions.

This apparent gap generated considerable discussion. Commentators considered factors such as possible *cultural bias* in NSSE questions, dissimilarities in the two national institutional samples (including the participation of private universities in the United States and national differences in programme mix), and engagement concerns within research-intensive universities (since most of the Canadian 2004 participants were research-intensive institutions). One hypothesis, understandably favoured by the universities, focused on resource differences, based on initial calculations indicating that comparable public institutions in the United States received an average 30 %–50 % more grant and tuition income per student.

A second notable finding was that benchmark scores also varied substantially among Canadian universities, even for the set of eight research-intensive universities represented in the 2004 sample. The participation of a more diverse set of institutions in the 2006 survey changed this pattern only for the SFI and ACL benchmarks, and then only moderately. That is, there seemed to be no systemic engagement variation by institution group.

US data reported in several NSSE annual reports suggested some next steps, including drill-down analysis to describe (if not explain) engagement variation by academic programme and student characteristics, and an item-based (rather than benchmark-focused) analysis to isolate key elements in engagement differences.

Using 2004 and 2006 response data, several institutions performed item-level drill-down analysis at the faculty/broad discipline level (e.g. humanities and engineering) and, where numbers permitted, at the specific programme and student subgroup level. Queen's University, for example, was able to generate means and frequency reports for five of its ten engineering programmes, for more than a dozen programmes in its Arts and Science Faculty, and for its international, mature and first-generation student populations.

As was the case in the USA, the results revealed major engagement differences by academic programme and student subgroup. This finding was significant for at least two reasons. First, it suggested that the variations in NSSE benchmarks among universities may reflect, in part at least, differences in the mix of programmes and composition of the student populations rather than institutional quality. Second, it buttressed efforts by student affairs offices to identify student subgroups for targeted retention efforts.

These general patterns were confirmed when institutions compared results. Several Canadian universities informally shared their 2004 and 2006 NSSE reports at the institution level. The U15 Data Exchange produced item-level university-by-university reports at the faculty/broad discipline levels that permitted some identification of best results. These cooperative efforts laid the foundations for the NSSE National Data Project discussed below.

How the Results Were Received

These engagement results generated considerable interest both within and beyond the Canadian university community. Within most institutions, institutional research and student affairs staff worked behind the scenes to disseminate NSSE information internally by making presentations introducing faculty and service providers to engagement concepts, NSSE results and potential implementation options; discussing drill-down results with academic units; and encouraging the university's academic administrators to explore embedding NSSE into institutional budget and assessment processes. A number of institutions established NSSE committees to steer implementation, and senior academic administrators at several universities advocated publicly and internally for activities to improve engagement.

These efforts were only partly successful. An informal survey of NSSE 'champions' at selected institutions in 2008 revealed that engagement awareness was considered lowest among faculty and service providers, and that most institutions were in the very early stages of implementation as gauged by a 6-point scale of implementation progress consisting of analysis, dissemination, integration into processes, engagement implementation without assessment, engagement implementation with assessment and continuous engagement improvement (Conway 2010).

Implementation efforts were indeed underway by the second major Canadian NSSE administration in 2008, but in a relatively isolated fashion, rather than as the result of systematic incorporation of engagement principles either within institutions or across the postsecondary sector. One university, for example, used NSSE to assess the engagement impact of 'Science 100' and 'Humanities 100' modules for first-year students. Another employed NSSE drill-down results for cognate programmes within the university and for comparable programmes in other universities for the review and restructuring of an entire academic programme.

Despite growing awareness and acceptance of NSSE throughout the universities, the 'we've done NSSE, now what?' question remained a barrier to widespread engagement implementation. Possible explanations for limited implementation progress include the failure to transfer the champion role from the institutional research office to key academics or teaching and learning centres, difficulty in 'connecting the dots' between NSSE item scores and classroom/curricular/service practice, the absence of incentives or formal processes for implementing engagement improvements, and the often overwhelming focus on managing budget restraint within academic units. By 2008, NSSE had garnered substantial interest and had generated significant discussion throughout the university sector in Canada, with a significant

focus on the first-year experience (where NSSE scores had generated the greatest level of concern). However, actual implementation practices clearly lagged behind those in the USA as evidenced by practice documentation in NSSE's *Annual Reports* and *Lessons from the Field 2009* as well as NSSE's implementation practices database (available at http://nsse.iub.edu/_/?cid=315).

Interest in NSSE results extended beyond the universities. Following the first major Canadian round of NSSE in 2006, *Maclean's* magazine obtained NSSE benchmark scores for most of the 30 participating institutions. Despite objections from most universities and NSSE's former director George Kuh, it published the first of several issues providing a simple ranking of Canadian universities by NSSE benchmark scores. The graphs were accompanied by text implying that the benchmark scores were tantamount to institutional quality measures. Though ill-advised, the effort generated substantial interest in engagement within the academic community and the public.

Governments took note of the NSSE results as well. Their interest lay mainly in the potential incorporation of the benchmarks into accountability agreements. Ontario universities responded to these pressures, despite considerable misgivings about possible misuse (i.e. rankings) and unrealistic expectations of increases in benchmarks over time, by offering to incorporate selected NSSE measures into the new Multi-Year Accountability Agreements. They also worked together on a Common University Data Set (CUDO), which included selected NSSE results (this has been adapted by universities in other provinces to produce a nearly national common data set), intended to improve accountability and student-relevant information.

A Canadian NSSE Research Agenda

The intriguing initial patterns in Canadian NSSE results, the promise engagement measures seemed to hold for facilitating academic planning and the interest in NSSE outside the university community suggested the main elements of a Canadian NSSE research agenda. Issues for investigation included:

- variations in NSSE benchmarks between Canadian and American universities and among Canadian institutions;
- variations in engagement results among specific programmes and disciplines, and among student subgroups;
- whether NSSE and its associated surveys could be used to gauge the impacts of interventions designed to enhance learning outcomes; and
- how NSSE and its associated surveys might be used to facilitate institution-wide academic planning.

Ontario researchers found a partner for this work with the creation of the Higher Education Quality Council of Ontario (HEQCO) in 2006 with a mandate to conduct research and provide policy advice on the three priority areas of accessibility, quality and accountability. HEQCO's first three *Review and Research Plan*

documents identified student engagement as a critical element in assessing quality and demonstrating accountability (HEQCO 2007, 2009, 2010). HEQCO hosted a NSSE workshop in 2007, and has devoted considerable attention and resources to NSSE research since. This financial support, together with HEQCO's commitment to publish research results, inevitably means that publicly available NSSE research in Canada is largely Ontario-focused.

The following sections provide discussions on selected research projects, drawing on our own knowledge and experience. As already noted, these do not reflect the full range of NSSE activity in Canada.

Explaining Variations in NSSE Scores

We noted above that several Canadian benchmark scores are systematically lower than those in the United States and that benchmark- and item-level engagement varies by broad discipline and academic programmes across Canadian universities. Various groups of students also display different and possibly uniquely Canadian engagement profiles. This is a key issue in Canada. The demographic and academic characteristics of students show major variation across universities and certain student groups, and as noted is the explicit focus of government access policies. Explaining these variations is of more than academic interest. As mentioned above, Maclean's magazine published NSSE benchmark scores in rank order with no attempt to explain the differences, and provincial government funders saw NSSE scores as key quality and accountability measures and suitable targets for institutional improvement.

Investigating Variations in NSSE Benchmarks

The factors explaining engagement variation in Canada were the subject of a research project funded by HEQCO (Conway et al. 2010). Modelled loosely on the method used by NSSE to generate predicted benchmark engagement scores up to 2004, one of the objectives of the research was to identify the roles of program mix, student characteristics and institutional size—and of the interactions among them—in explaining institution-level benchmark score variation, and to generate predicted benchmark scores as context for interpreting raw benchmark values. Analysis was undertaken at both the student record-level and at the institution-level (the latter with more statistical success). NSSE response data for 44 Canadian NSSE institutional participants in 2008 and 2009 were supplemented with a number of additional data items obtained from the student records system of each institution to enable analysis of broad discipline and student subgroup-level engagement effects. Table 3.1 presents a summary of the institution-level regression model results.

The analysis reveals that various student characteristics, programme mix and institution size play key roles in explaining a substantial portion of institutional benchmark variation in both first and final years. The clear implication is that attributing raw benchmark score variation solely to differences in institutional

Table 3.1 Canadian institution-level benchmark regression model results

Model predictors	First year (n=44 institutions)					Senior year (n=39 institutions)				
	LAC	ACL	SFI	EEE	SCE	LAC	ACL	SFI	EEE	SCE
Student characteristics										
% In traditional age category			−0.130							
% Male		−0.251		−0.136		−0.127	−0.419	−0.153	−0.050	−0.067
% French speaking			−0.108	−0.033		−0.033	−0.054	−0.137	−0.321	−0.201
% First generation	−0.224	−0.186	−0.193	−0.148				−1.116	−0.633	−1.214
% First nation	−0.378	−0.561				−0.101		−0.151	−0.120	−0.264
% Visible minority					−0.241					
% International origin	−0.328	−0.281								
% With short/walk commute							−0.108			
% With long/drive commute						0.088		0.051		
% Out of province origin	−0.095	−0.143		−0.106		−0.073	−0.072		−0.125	
% In lowest HS grade quartile	−0.132		−0.114	−0.071	−0.214					−0.093
% In highest HS grade quartile	−0.079					0.112	0.234			
% Studying full-time		−0.138								
% With previous university					−0.331			−0.168		−0.451
programme mix										
% In business programme		0.154	0.134				0.240	0.158	0.151	
% In education programme					0.176				0.146	

Table 3.1 (continued)

Model predictors	First year (n=44 institutions)					Senior year (n=39 institutions)				
	LAC	ACL	SFI	EEE	SCE	LAC	ACL	SFI	EEE	SCE
% In engineering programme		0.283		0.120	0.240	0.117	0.336		0.147	−0.113
% In general arts etc. programme									0.158	
% In humanities programme						0.084				−0.207
% In fine arts programme		0.088		−0.037			0.663			−0.086
% In first professional programme	0.183	0.250	0.154	0.112	0.157	0.119	0.178	0.128	0.190	
% In sciences programme	0.062	0.107								
% In health sciences programme					0.130	0.108	0.119	0.180	0.265	
University size										
University in "small" category	3.029	5.810	4.734	2.029	3.476	2.372	3.246	5.203		5.719
University in "large" category					−4.304	−2.35	−2.584	−2.681		−3.485
Constant	69.19	63.76	48.29	38.20	82.44	51.96	59.35	49.05	44.08	91.32
R-squared	0.776	0.918	0.876	0.785	0.781	0.822	0.889	0.936	0.870	0.865

All coefficients shown are significant at < 0.05

Key to benchmark abbreviations: *LAC* level of academic challenge, *ACL* active & collaborative learning, *SFI* student-faculty interaction, *EEE* enriching educational experiences, *SCE* supportive campus environment
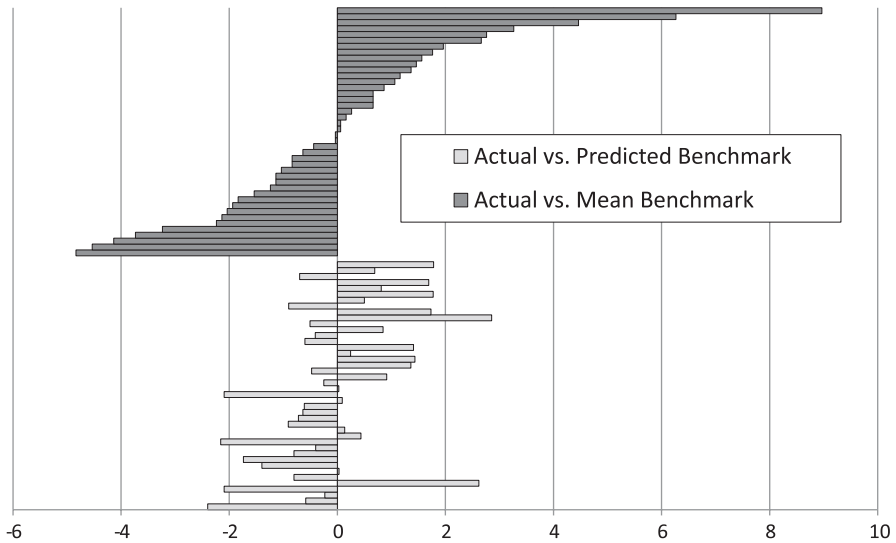
Fig. 3.1 Two interpretations of first-year LAC benchmark variation

quality is not only premature, but actually incorrect. An examination of predicted institutional benchmark scores (calculated by applying the regression coefficients to actual predictor values for each institution) and the relatively small amount of variation they present (Fig. 3.1, Table 3.2) reinforced these conclusions.

The analysis provides at least a general basis for defining institutional contribution to engagement and the scope of institutional potential to modify it. Engagement results should not be used as direct indicators of institutional performance. Rather, each institution should ultimately be accountable for the difference between its actual and predicted engagement. This difference can be viewed as at least a preliminary proxy measure for institutional engagement contribution after controlling for the effects of student characteristics, programme mix and institutional size.

Investigating Engagement Variations in Programme and Student Subgroup Scores

Analysis of the factors affecting engagement variation recently continued with a second phase of the NSSE National Data Project (Conway and Zhao 2012). Phase 2 had two objectives: to shift from the benchmark to the item level and from the institutional to the specific academic programme and student subgroup levels in order to determine whether distinct engagement dynamics exist across academic programmes and student subgroups; and to identify critical engagement actionables (i.e. items rather than benchmarks) within each academic programme and student subgroup. Variations in programme and student subgroup engagement dynamics and the identification of key

Table 3.2 Engagement variation using raw benchmarks and regression predictions

Year	Benchmark measures	LAC	ACL	SFI	EEE	SCE
First year	Benchmark mean (actual)	51.14	38.31	24.57	24.47	57.00
	Benchmark minimum (actual)	46.30	27.70	16.10	20.80	50.30
	Benchmark maximum (actual)	60.10	53.90	34.20	30.20	72.30
	Benchmark range (actual)	13.80	26.20	18.10	9.40	22.00
	Benchmark range (actual) as % of benchmark mean	27	68	74	38	39
	Benchmark (actual) standard deviation	*2.71*	*5.71*	*3.83*	*2.21*	*4.45*
	Largest negative difference, actual vs. predicted	−2.40	−3.62	−5.08	−1.79	−4.71
	Largest positive difference, actual vs. predicted	2.86	3.72	2.46	2.53	3.84
	Difference range (actual vs. predicted)	5.26	7.34	7.55	4.33	8.55
	Difference range (actual vs. predicted) as % of benchmark mean	10	19	31	18	15
	Difference (actual vs. predicted) standard deviation	*1.28*	*1.73*	*1.55*	*1.01*	*2.11*
Senior-Year	Benchmark mean (actual)	55.49	46.80	33.78	34.34	54.38
	Benchmark minimum (actual)	51.50	39.20	24.60	29.20	44.90
	Benchmark maximum (actual)	61.50	59.40	43.70	42.90	70.10
	Benchmark range (actual)	10.00	20.20	19.10	13.70	25.20
	Benchmark range (actual) as % of benchmark mean	18	43	57	40	46
	Benchmark (actual) standard deviation	*2.31*	*4.22*	*5.02*	*3.24*	*5.17*
	Largest negative difference, actual vs. predicted	−1.99	−2.70	−2.78	−3.22	−7.33
	Largest positive difference, actual vs. predicted	2.06	2.77	9.04	3.32	3.72
	Difference range (actual vs. predicted)	4.05	5.47	11.82	6.54	11.05
	Difference range (actual vs. predicted) as % of benchmark mean	7	12	35	19	20
	Difference (actual vs. predicted) standard deviation	*0.89*	*1.34*	*1.88*	*1.25*	*2.02*

Key to benchmark abbreviations: *LAC* level of academic challenge, *ACL* active & collaborative learning, *SFI* student-faculty interaction, *EEE* enriching educational experiences, *SCE* supportive campus environment

actionables are critical to identifying the tools universities—and their academic and service units—will want to select in addressing engagement concerns.

Regression models were constructed for NSSE benchmarks and their component items at the academic programme level to measure the explanatory power of student characteristics and institutional size for nine academic programmes that had a sufficient number of NSSE responses at each of the institutions. Analysis was limited to senior-year responses, where programme differentiation is more meaningful than in first year. The research addressed two questions:

- Within a given academic programme, what is the degree of similarity between the benchmark model and each of the component item models, and among the various component item models? If each item essentially 'tells the same story' as its parent benchmark and other items (i.e. similar R^2 and similar student characteristic predictors with similar coefficient signs), then item-focused analysis adds little to benchmark-focused analysis at the programme level.
- Across academic programmes, what is the degree of similarity among same-item models? If a given item model (e.g. participation in community service or volunteer work) is highly similar when applied to history and psychology and nursing programmes, then programme-focused analysis adds little to university-focused analysis at the item level.

The research revealed that *within* all nine academic programmes examined, many of the NSSE item regression model results differed substantially from parent benchmark model results and that the explanation for variation in a particular NSSE item *across* programmes relied on very different student characteristics. For example, in English programmes, minority students (first generation, First Nations, international and visible minority) were systematically under-engaged in many of the items across all five benchmarks. Nursing programmes, in contrast, indicated selectively *higher* engagement (and very rarely under-engagement) among these same groups of students. In some academic programmes, one or two NSSE item models coincided closely with the parent benchmark models while other item models did not. In other programmes, the benchmark was not well explained by student characteristics even though these characteristics were key predictors of several component items (suggesting that the benchmark masked the offsetting effects of student characteristics).

With respect to engagement improvement, the findings strongly suggest that at least initially, more fine-tuned practices tailored to the distinct engagement dynamics of different academic programmes be explored, rather than a common cross-programme or university-wide approach.

Investigating Engagement Variations Among Disciplines

Norrie et al. (2012) used the data from the NSSE National Data Project to examine the engagement experiences of senior-year students in economics programmes at a number of Canadian universities. The data permitted identification of students by programme, allowing engagement comparisons among disciplines. The comparison groups for economics were other social science disciplines, several business
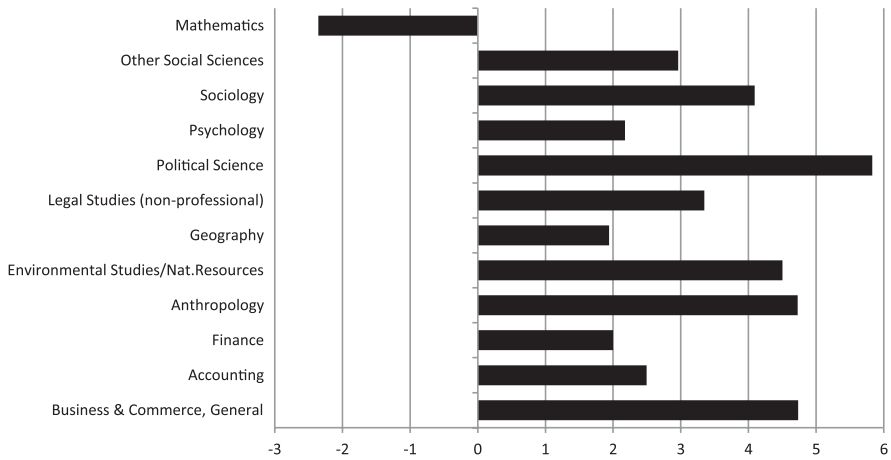
Fig. 3.2 LAC benchmark by discipline relative to economics

programmes and mathematics. Space considerations permit only a sampling of the empirical results.

Figure 3.2 shows the value of the LAC benchmark score for each discipline *subtracted from* the LAC score for economics. Thus, a positive value means a higher benchmark score, while a negative value indicates a lower score. Economics had the second lowest LAC score of all programmes represented, surpassing only mathematics. All differences are significant at 5 % or higher.

The 11 individual items comprising the LAC benchmark provide a more detailed perspective on the relative performance of economics:

- Time spent preparing for class (studying, reading, writing, rehearsing and other activities related to academic programme)
- Worked harder than you thought you could to meet an instructor's standards or expectations
- Number of assigned textbooks, books or book-length packs of course readings
- Number of written papers or reports of 20 pages or more
- Number of written papers or reports between 5 and 19 pages
- Number of written papers or reports fewer than 5 pages
- Coursework emphasises: Analysing the basic elements of an idea, experience or theory
- Coursework emphasises: Synthesising and organising ideas, information or experiences
- Coursework emphasises: Making judgments about the value of information, arguments or methods
- Coursework emphasises: Applying theories or concepts to practical problems or in new situations
- Campus environment emphasises spending significant amounts of time studying and on academic work.
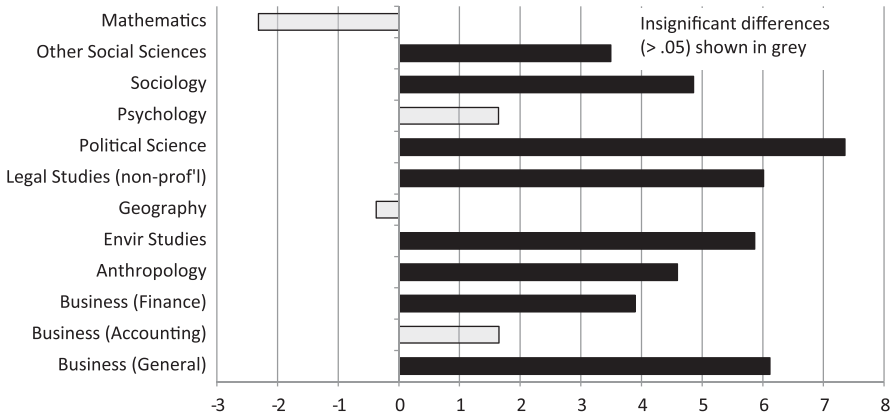
Fig. 3.3 Deep Learning and Higher-Order Thinking subscales relative to economics

Economics has relatively low scores for most individual items included in the LAC benchmark. The exceptions are item 2 (working harder than expected to meet instructor's expectations) and item 11 (campus emphasis on academic work) which is not specific to economics. The most significant instances where economics lags behind other disciplines in engagement scores are in item 3 (assigned readings), item 5 (reports or papers between 5 and 19 pages), item 6 (papers or reports fewer than 5 pages), item 8 (synthesising and organising ideas), item 9 (making judgements about the value of information, arguments or methods) and item 10 (applying theories or concepts to practical problems or in new situations).

It is perhaps not surprising that the numbers in economics programmes lag those for other social sciences in reading and writing activities, given the relatively greater reliance in most economics courses on technical problem sets. This is the case for mathematics, finance and accounting as well. However, the relatively poor showing in analysis, synthesis, evaluation and application is surely more cause for reflection.

The scholarship of teaching and learning literature distinguishes between surface and deep approaches to learning. Deep learning goes beyond rote learning to focus on the underlying meaning of the information and has been associated with numerous positive outcomes, such as higher grades and the ability to retain, integrate and transfer information at higher rates (Christensen et al. 2010). Nelson Laird et al. (2005) used exploratory factor analysis to develop several subscales of deep learning based on the NSSE survey questions: higher-order, integrative and reflective learning.

Norrie et al. (2012) used their results to calculate deep learning subscales for each discipline. Figure 3.3 shows the results for the higher-order thinking metric for each discipline, relative to economics. Economics is third to last in this category, surpassing only mathematics and geography although these gaps are not statistically significant. The largest differences are for political science, general business, legal studies and environmental studies. The positive values for accounting and psychology are not statistically significant.

These results should be of some concern to economics departments considering the NSSE questions that make up the higher-order thinking subscale: analysing the basic elements of an idea, experience or theory; synthesising and organising ideas, information or experience; making judgments about the value of information, arguments or methods; and applying theories or concepts to practical problems or in new situations. These are competencies that, in our experiences, would figure into most economists' lists of intended learning outcomes.

Evaluating Revisions to Programmes, Courses and Service Offerings

Academic programmes and service units frequently revise their course, programme and service offerings with the intention of enhancing student learning and improving student success. These revisions are often motivated by course evaluations, student performance, best practice reviews and various forms of qualitative evidence. Formal assessment of such changes is uncommon; when undertaken, satisfaction-based measures are often used despite their limited linkages to academic outcomes. NSSE provides an opportunity to apply more robust instrumental measures of student learning in such assessments.

The 'Implementing Engagement Improvements through Targeted Interventions' project (Conway 2010) was a multi-university research effort designed to assess whether changes in NSSE benchmarks or items provide useful measures of the engagement effects of modest course, programme and service interventions using a variety of highly structured quasi-experimental designs. Ten interventions were designed and implemented by faculty, institutional researchers and student affairs staff at nine universities, each of which addressed engagement concerns (primarily in first-year) identified in prior NSSE results. They included redesign of advising services across a faculty, teaching assistant training and development in selected courses, writing skills courses integrated into the first year of selected programmes, research and professional enrichment modules in a large introductory course and supported learning groups in numerous courses. Both successive cohort and cross-sectional designs were utilised, using propensity score-matched experimental and control groups with treatment effects assessed through the use of regression analysis. Intervention impacts were assessed using one or more of NSSE, CLASSE (Classroom Survey of Student Engagement; see Ouimet and Smallwood 2005), pre- and post-surveys, course grades, skills testing and course attrition.

One such intervention was the 'Biology Science Literacy Initiative' (BSLI) at Western University in London, Canada (Meadows and Haffie 2012). The objective of BSLI was to integrate the development of science literacy skills into the first-year undergraduate biology curriculum. BSLI was implemented through newly designed tutorial sessions in two large, full-year introductory biology courses in the 2008–2009 academic year: BIOL 1222 (for students who had satisfactorily completed a high school biology course) and BIOL 1223 (for students without high
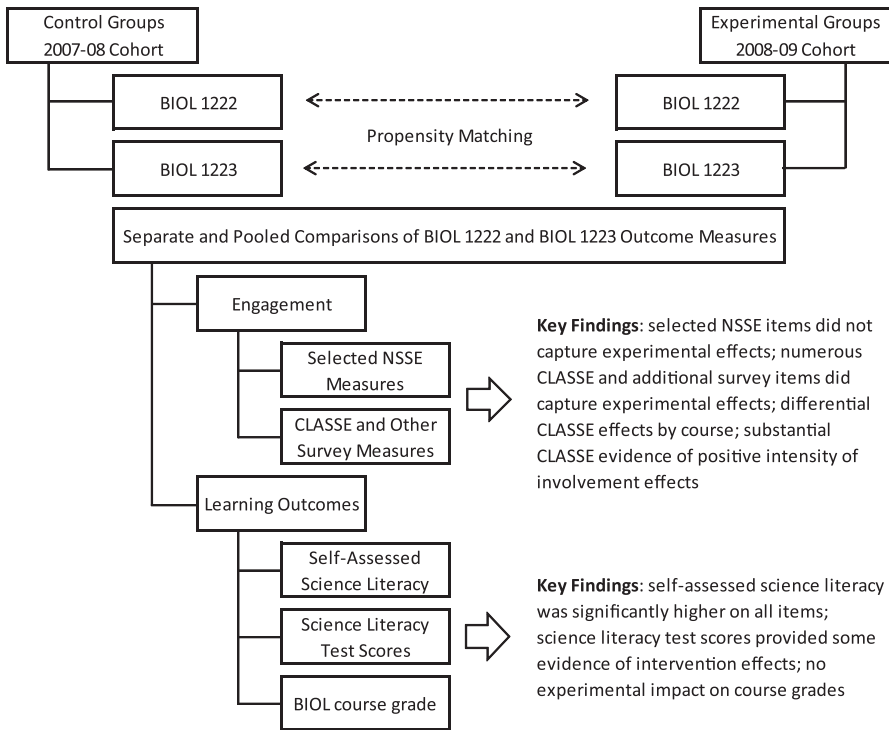
Fig. 3.4 BSLI initiative at Western University

school biology or without sufficiently high grades in biology). Figure 3.4 presents the BSLI experimental and assessment designs and key findings. Students enrolled in BIOL 1222 and BIOL 1223 in 2007–2008 served as the control group; the experimental group consisted of students enrolled in these two courses in 2008–2009. To ensure sample similarity between the control and experimental groups, propensity matching was performed separately for the two courses using several available demographic and academic controls. Four assessment tools were used: NSSE, CLASSE (supplemented with additional in-house questions), an on-line science literacy assessment and course grades. Engagement and learning outcome measures for each course and for the courses combined were compared between the propensity-matched groups to assess how well the tools detected engagement levels before and after the intervention.

The assessment revealed that the experimental effects of BSLI participation were not captured in NSSE item scores. This is not a surprising conclusion, since even large-scale effects of this single course initiative would likely be diluted within the 'overall experience' focus of NSSE. The effects were detected in many of the CLASSE items, however. The vast majority of the 25-plus items indicated positive experimental engagement impacts; the impacts were stronger within the class of less prepared students (BIOL 1223); and in both courses, higher levels of involvement

(attendance, participation) were consistent with higher engagement gains. In terms of learning outcome measures, the experimental group self-reported higher science literacy and achieved higher science literacy test scores, but these results did not translate into improvements in final course grades.

The findings from the other nine interventions were broadly similar: NSSE items and benchmarks were generally unable to detect intervention effects (almost certainly due to in part to dilution effects), but CLASSE (where used) and various other intervention-specific measurement tools showed significant promise in a number of interventions. The intervention projects in combination provide insight into the accountability value of engagement measures and of structured quasi-experimental design including propensity matching, and clarified several practical issues that will inform future efforts (e.g. intervention scale and intensity, sample size and response rate issues).

Using Engagement Measures to Inform Academic Management and Planning

Researchers at the University of Guelph undertook an integrated analysis of the university's BCSSE, Laird, Shoup & Kuh (2005), NSSE and FSSE results to conduct two forms of gap analysis organised around Pike's (2006) framework of scalelets and outcome measures (Mancuso et al. 2010). To measure how closely their experiences of university coincided with their original expectations—an alignment the authors called the 'disappointment gap', BCSSE results obtained from students immediately before or at the start of their university careers were linked to those same students' responses in NSSE at the end of their first year. Similarly, FSSE results obtained from faculty members who taught these students (a selected subset of all faculty FSSE respondents) were linked with the NSSE results to compare faculty perceptions of student engagement with those of the students themselves—what the authors refer to as the 'misunderstanding gap'.

The results of the Guelph analysis are summarised in Fig. 3.5. The disappointment index was calculated by subtracting the NSSE mean from the BCSSE mean: the higher the index, the more students' actual experiences fall short of their expectations. The misunderstanding index was calculated by subtracting the FSSE mean from the NSSE mean: the higher the index, the wider the gap between student and faculty assessments of the student experience.

A consistent pattern was found with respect to the disappointment index. Students reported significantly lower levels of actual engagement than they expected when they entered university. For 8 of the 12 scalelets analysed, the disappointment indices were positive and significant. The exception to this pattern was the 'information technology' scalelet (where the use of technology in the institution exceeded student expectations). Similarly, the 'gains in practical skills' outcome measure indicated that student impressions of practical skills gains were slightly better than those they held when entering university.
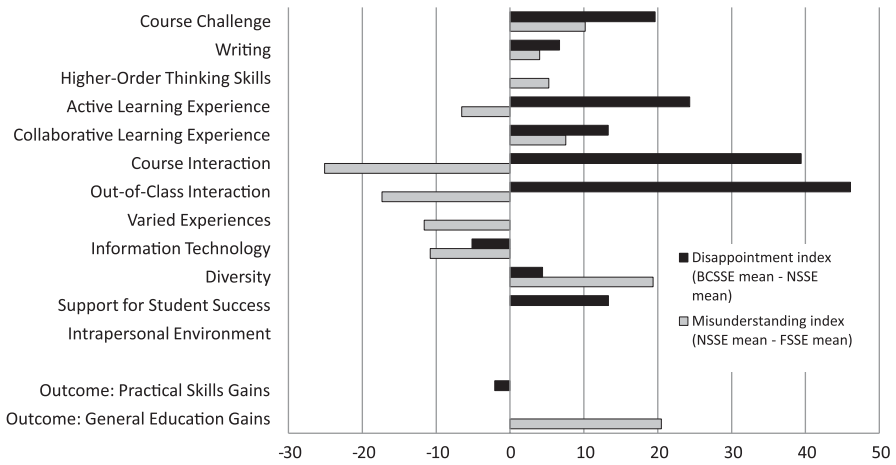
Fig. 3.5 University of Guelph disappointment and misunderstanding gaps

The misunderstanding gap operates in both directions. When the engagement activities involve direct faculty interaction, faculty members report a higher student engagement level than do students (negative values for misunderstanding indexes). When the activities do not involve direct interaction with a faculty member, faculty tend to underestimate the engagement behaviour of first-year students (positive values for misunderstanding indexes). With regard to outcome measures, students at the University of Guelph perceive greater gains in general education than faculty attribute to them.

The University of Guelph's gap analysis project provides an example of how to identify the disparities between students' expectations and actual experiences, and the gap between student engagement reports and faculty perceptions of student experiences. This type of analysis can be used to identify institution-specific areas that could be improved, which in turn can aid in the design or improvement of engagement strategies in light of institution-specific missions and goals. Linked FSSE and NSSE results may also help encourage faculty members to reflect on their teaching and interactions with students.

The Future of NSSE in Canada: Implementation, Accountability and Research

As we noted at the outset, NSSE has become a central element in university and government conversations about quality and accountability, and is gradually—some might argue too gradually—finding its place within university planning and procedures. The following discussion suggests a few of what we consider to be essential elements for the continuing and expanded use of NSSE.

Table 3.3 A framework for progressive engagement implementation

Implementation phase	Examples of activities
Initial learning	US/Canada differences
	Internal data drilldowns to faculty, programme and student subgroup levels
	Sharing of summary results and "positioning"
	Identification of institutional issues, strengths and weaknesses
	Specification of the engagement research agenda
Dissemination	General presentations and awareness-raising
	Programme/faculty/issue presentations
	Generating support with faculty, service providers, university administration, centre for teaching and learning
	Initial organization-wide learning
	Communication with government funding agencies
Integration into institutional operations	Establishment of steering or advisory committee
	Widespread availability of comparative engagement results
	Incorporation of engagement issues into budget process and accountability
	Integration of engagement as a strategic planning consideration
	Development of KPIs that integrate engagement into the student experience profile
	Academic programme and accreditation reviews
	Enhancement of external reporting and accountability around engagement issues
	Incentives for engagement initiatives
Informal implementation without assessment	Pilot engagement projects to enhance organisational learning and support
	Establishment of faculty and service provider workshops
	Inter-university or sector-wide training involving and informing government funding agencies
Formal implementation with assessment	Course-based (classroom oriented) experiments
	Service-based experiments
	Curricular-centred experiments
	University-wide initiatives
Continuous improvement	Development and distribution of a 'best practices' inventory
	Strategic plan monitoring and formal accountability mechanisms
	Advanced research

Canadian universities must break down the barriers to more systematic implementation of engagement improvement practices. Canadian institutions have not achieved either the scale or diversity of engagement effort that is observed in the United States. Table 3.3 (adapted from Conway 2010) suggests a progression of

implementation activity culminating in continuous improvement. While virtually every institution has achieved significant gains in the first two phases, there remains only selective activity in subsequent phases, particularly with respect to what appears to be a critical barrier—the integration of engagement improvement into institutional processes. While we cannot offer a formal explanation for this lag, we see great potential in a sector-wide effort in which staff of the various centres for teaching and learning 'connect the dots' between NSSE items and effective classroom practice—a sort of 'manual' for faculty members who are motivated to improve engagement but uncertain where to start. Canadian institutions have achieved relatively greater success with course-specific innovation using CLASSE as one assessment tool, with dozens of examples to date.

Given the public policy priority on increasing postsecondary participation and success among traditionally under-represented groups, engagement research and implementation focused on first-generation and First Nations students is both necessary and also (given multi-institution drill-down comparisons) possible. Similarly, the dual accountability focus in Canada on the undergraduate experience and learning outcomes (and the many related issues these imply) suggests the need for both direct learning outcomes assessment and a greater understanding of the linkages between NSSE and learning outcomes.

In several provinces, new standardised academic programme review processes have recently been implemented and organised (in the spirit of Bologna) around degree-level expectations. These processes provide one of several opportunities to achieve what we believe to be a critical prerequisite for improved implementation practice: the embedding of NSSE and other assessment tools in academic unit-level planning.

While several successful engagement initiatives in Canada can certainly lead by example, the points above suggest the need for a greater integration of institutional engagement effort not only to better share effective practice, but also to ensure meaningful, data-driven and consistent accountability requirements throughout the country.

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Chapter 4
Engaging University Students in Australia

Alexandra Radloff and Hamish Coates

Introduction

Recent decades have seen increased formal focus on the quality of higher education offered in Australia. This growing interest in quality is clearly illustrated through the recent *Review of Australian Higher Education* (Bradley et al. 2008), *Higher Education Base Funding Review* (Lomax-Smith et al. 2011), the Australian government's commitment to *Advancing Quality in Australian Higher Education* (DEEWR 2011a) and the move towards demand-driven funding for undergraduate student places (DEEWR 2011b). As quality assurance becomes increasingly embedded in higher education policy and practice, questions about what information is needed to understand, monitor and manage quality become ever more essential to address.

Information on student retention, progress, completion, satisfaction and graduate outcomes is valuable to inform the quality discussion. At a time when the productivity and standards of Australian higher education sector are under increased levels of scrutiny, however, it is important that the sector also has access to information that will help identify how Australian students are learning, how institutions are supporting students and the outcomes that students are achieving because of their study. As detailed by Coates (2005), information such as this forms an important basis for quality assurance in higher education, and can provide a more fully formed picture of students' experience in higher education. Students, for instance, can use information such as this to make decisions about where and what to study. Academics can use this information to monitor and improve their teaching as well as the support made available to students. Senior managers can use this information to benchmark their institution's performance with national averages and set targets for

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improving student learning. Governments and regulators can use such information to assist with measuring the standard of education being offered, and use the data for accountability purposes and to make decisions related to policy.

Building a clearer picture of what students are doing while studying, and discovering how they might get more from study requires information on students' involvement with educationally effective activities. Triangulating this information with other data available on student demographics, information on teaching practices and curriculum, student satisfaction findings, measures of graduate outcomes and data on student attrition, retention, progress and completion will help the sector form a better understanding of students' engagement with learning and ways in which it could be enhanced.

A Cross-Institutional and Evidence-Driven Perspective Takes Shape

The introduction of a national Australasian Survey of Student Engagement (AUSSE) in recent years has helped institutions collect information that increases understanding of student engagement patterns. The availability of data on student engagement has also assisted in the sector acknowledging the importance of student engagement. How students are engaging with learning in higher education is now viewed as of critical importance within the sector, and has been a focus of recent discussions relating to higher education policy and quality in Australia.

An illustration of the importance currently being placed on student engagement is shown in the *Review of Australian Higher Education* (Bradley et al. 2008). The 'Bradley Review' was initiated to examine the higher education sector in Australia and to determine whether it was meeting the future needs of the Australian community and economy. The Bradley Review stated that 'the established mechanisms for assuring quality nationally need updating' (Bradley et al. 2008). One recommendation given in the Bradley Review was that all accredited higher education providers, including universities, should collect information on student engagement by administering the AUSSE in addition to other surveys that measure student satisfaction with their course (the Course Experience Questionnaire (CEQ)) and their graduate pathways (the Graduate Destinations Survey (GDS)) (Bradley et al. 2008). The Bradley Review also suggested that findings from the AUSSE be published publicly along with details of how institutions have used findings from the AUSSE to address any issues raised through student responses and to increase student engagement and improve student outcomes (Bradley et al. 2008).

The AUSSE supports higher education institutions in gaining a better understanding of how their students are engaging in learning and their interactions with their institutions. The programme provides data that Australian institutions can use to attract, engage and retain students by reporting on the time and effort students devote to educationally purposeful activities and on student perceptions of their university experience. Collecting data on how students are learning and the outcomes

they feel they are achieving allows higher education institutions to understand what really counts in terms of quality. Using a single national survey for measurement, rather than institutionally developed surveys of engagement, also means that Australian higher education providers can benchmark their results both within their own institution, for example, by looking at differences between schools and faculties, while also enabling benchmarking between institutions. Australian institutions can also look internationally to see how they could improve student learning by benchmarking their results with those at similar colleges or universities that have participated in a similar survey overseas. Using a single instrument also allows institutions to collaborate on their efforts to enhance learning, by sharing findings and data from the survey.

The AUSSE is a quality enhancement activity that is managed by the Australian Council for Educational Research (ACER) and is run in collaboration with Australian and New Zealander higher education and tertiary education providers. Foundations for the AUSSE were laid in late 2006 and early 2007 through conversations between institutions interested in measuring students' engagement and ACER about developing a measure of current students' engagement in Australasian higher education. At the time, the only national survey of students being administered to the whole student cohort on an annual basis was focused on recently graduated students and their satisfaction with education, teaching and their course provision. The AUSSE methodology and administration processes were developed in early 2007 and a pilot collection with 25 Australian and New Zealander universities followed later that year.

The AUSSE measures student engagement through the administration of the Student Engagement Questionnaire (SEQ) to a representative sample of students at participating tertiary institutions. The SEQ is based on NSSE's College Student Report and is used under licence. The College Student Report is based on decades of scholarly research, and since 2000, has been administered at more than 1,500 institutions and subjected to numerous tests and improvements. Before being administered with Australian and New Zealander students as the SEQ, the College Student Report was extensively revised, developed and validated for Australasian higher education.

Validation of the SEQ has ensured that the instrument has retained the robust technical properties of the College Student Report, and is underpinned by rigorous technical foundations (Coates 2011). Validation has ensured that the survey is appealing both to respondents and to the end users of the data, that it is efficient to administer and that the questionnaire produces results, which can be analysed and reported usefully. A range of qualitative and quantitative procedures were used to validate the SEQ before first administering the questionnaire in Australasia. The multifaceted validation work replicated and advanced the widely used approaches implemented in developing other instruments for Australian higher education. Validation of the SEQ is ongoing in nature, and supports the on-going growth and refinement of the instrument. Validation has included focus groups, cognitive interviews, expert review, pilot testing and review, psychometric modelling and other analyses. Item wording was refined through qualitative review and analysis, while

quantitative analyses helped to ensure that the scales measured the target constructs with acceptable levels of bias and precision. Of course, this work built on the extensive validation work undertaken over a decade of use in the USA (Kuh 2009).

The College Student Report on which the SEQ is based was developed to operationalize the construct of student engagement for the purposes of measurement. Because of the way in which the survey was developed, there is an intimate link between the conceptual foundations and the instrument. A critical feature of the SEQ is its foundation in empirically based theories of student learning. Items in the SEQ are based on findings from decades of research on the activities and conditions linked with effective learning. This foundation helps assure the educational importance of the phenomena measured by the instrument. Items are not included in the instrument simply because they are seen to reflect good ideas or because they reflect the interests or consensus of stakeholders. Indeed, a criterion for including any item in the questionnaire is that it measures an aspect of student learning that empirical research has linked with high-quality student outcomes, affirming the educational significance of the phenomenon.

A range of validation strategies were used to verify the link between the SEQ and its research foundations. Items were mapped against key themes in several meta-analyses to ensure sufficient content coverage. The instrument has also been assessed by dozens of practitioners and research experts on student learning and development. These processes resulted in certain additions and deletions of items in the SEQ. Items that asked students about their spirituality, for instance, were dropped from the SEQ as they were not viewed as relevant to the Australian context. Items such as those measuring students' engagement in online learning and whether they had sought career advice were added. Several items were added to measure students' early departure intentions and the concept of work-integrated learning. This empirical work provided a means of ensuring the relevance of the instrument and its underpinning constructs to the Australian context.

While the SEQ measures many of the same aspects of engagement and includes many of the same engagement scales as the NSSE—Academic Challenge, Active Learning, Student and Staff Interactions, Enriching Educational Experience and Supportive Learning Environment—the SEQ also provides data on another engagement scale—Work Integrated Learning. In addition, the SEQ provides measurement of seven outcome measures—higher order thinking, general learning outcomes, general development outcomes, career readiness, average overall grade, departure intention and overall satisfaction.

The AUSSE was first administered with universities in Australia and New Zealand in 2007. In the pilot administration, just over half of all Australian universities participated in the AUSSE, reflecting a great interest in understanding more about student engagement. Because of the level of interest and increasing focus in the sector on measuring what matters in the quality of higher education, the number and types of institutions participating in the AUSSE have expanded as the survey developed. The AUSSE is now used by many non-university providers of higher education, including institutions of technical and further education (TAFEs) and private colleges, as well as institutes of technology and polytechnics (ITPs) and private training establishments (PTEs) in New Zealand.

In 2008, the Staff Student Engagement Survey (SSES) was first administered to teaching staff at participating Australasian universities. The SSES is based on the Faculty Survey of Student Engagement (FSSE), which was also developed and run by the Center for Postsecondary Research at Indiana University. The SSES is a survey of academic staff who currently teach or who have recently taught undergraduate or coursework postgraduate students. The SSES provides parallel measurement of student engagement from a staff perspective and can provide participating institutions with a useful understanding of staff perceptions and views on students' engagement and how these compare with students' responses to the AUSSE on their own engagement.

In 2009, based on interest from universities in Australia and New Zealand, a postgraduate coursework version of the AUSSE—the Postgraduate Survey of Student Engagement (POSSE)—was developed and trialled. Very few surveys prior to this pilot had focused on postgraduate coursework students, although there are over 250,000 students currently studying at this level in Australia. This new survey gave participating institutions new insights into students studying for master's degrees, and graduate and postgraduate diplomas and certificates.

Since 2007, over 600,000 Australian students and staff have been sampled to participate in the AUSSE, POSSE and SSES. Thirty-eight of Australia's universities have participated in the AUSSE at least once since the first administration and since 2007 there have been over 180 institutional replications of the surveys at Australian universities, institutes of technical and further education (TAFE) and private colleges.

Shifting the Needle: Beyond Happiness to Engagement

The deep and growing rationale for factoring student engagement into higher education in Australia can be clarified by looking at one of the key underpinning agendas—shifting emphasis from satisfaction to engagement. As Australia moves toward a more demand-driven system of higher education, there is even more need for institutions to understand how students are engaging in learning. With the apparent commoditisation of higher education, institutions will face more competition and pressures on quality, driving greater need for information about how students engage. Herein lies the broadest aspiration underpinning the research agenda discussed above—driving policy and operational shift from 'managing client happiness with service provision' to 'stimulating student engagement with effective practice'.

Universities collect a considerable amount of data on students' perceptions of the quality of teaching and institutional services, including their satisfaction with the overall experience. However, it is equally—or, arguably more—important to understand students and their learning as it is to understand learners' satisfaction with provision. To be sure, monitoring student satisfaction plays an important role in assuring the quality of higher education. It provides information on whether learners see a return on their educational investment. Yet, deep satisfaction is more than happiness. As research with students' engagement makes clear, we need to examine the

Table 4.1 Correlation of satisfaction with engagement scales

AUSSE scale	Correlation
Supportive learning environment	0.59
Academic challenge	0.27
Student and staff interactions	0.25
Work integrated learning	0.23
Active learning	0.18
Enriching educational experiences	0.17

determinants of satisfaction, not just satisfaction itself, to identify what institutions can do to enhance education. That is, we need to look beyond satisfaction at more fundamental educational factors to identify how to enhance student outcomes and their overall experience.

Following NSSE, the AUSSE collects data on three satisfaction items which work together to measure a single dimension of overall satisfaction. Results below flow from the 2007 AUSSE, the first administration conducted with 25 Australian and New Zealander higher education institutions. The figures show that satisfaction matters for student retention. For instance, students who reported that they planned to change institutions the following year had average satisfaction scores of 54 compared with 69 for those who intended on staying at the same institution. Students who reported course-change intentions also had a lower average score of 59 compared with 69. Early student departure is a highly complex phenomenon to investigate. Nonetheless, read broadly, these patterns are telling and underpin the importance of overall satisfaction.

Merely studying satisfaction, however, provides only a partial basis for planning and action. It does not make clear the educational settings that underpin higher and lower levels of student satisfaction. To do this means exploring the educational factors that underpin students' overall satisfaction, and hence, the levers that institutions can use to drive improvement—in short: investigating the relationship between overall student satisfaction and defined aspects of student engagement.

As Table 4.1 shows, these relationships are uniformly positive with very large samples. Engaged students tend to be more satisfied with their study, and vice versa. By far, the largest correlation relates to perceptions of support, implying that supporting student engagement enhances student satisfaction.

The idea that academic challenge and individual support promote engagement, learning outcomes and satisfaction is not a novel concept. Little (1975) defined a typology of university learning climates. He argued that the 'cultivating climate' was most productive for undergraduate student learning and development, this being characterised by high academic standards, support and recognition. The perspective is affirmed in AUSSE results, which show that support and challenge are important for satisfaction and performance, but it is both in combination that promote the best outcomes. Satisfaction is particularly low when students report support as lacking.

This engagement-focused perspective is not new, but evidence captured by the AUSSE underpins grounds for its re-emphasis. Analysis shows that challenging

students to learn and providing them with integrated forms of individual support and enrichment enhances overall satisfaction. Creating challenging and supportive learning environments and supporting students' participation in enriching experiences play a particularly important role in enhancing satisfaction and student outcomes. Institutions should consider how to create a cultivating learning climate that sets high academic standards and provides integrated support for each individual's learning and development.

Converting Evidence into Change

Developing strategies for institutions to use engagement data for continuous improvement is a vital part of the AUSSE. Collecting information on student engagement can play a valuable role in enhancing the quality of higher education, even if this data only stimulates conversations within institutions about how students engage in learning. The AUSSE may also enhance students' engagement simply by exposing students and academic staff to an inventory of good learning practice. Beyond this, the most effective and productive change comes through institutions using findings from the AUSSE to steer enhancements in practice to effect and improve student learning. By providing universities with data, reports, benchmarks and enhancement guides related to student engagement, the AUSSE assists with the process of continuous improvement.

Reports are provided to participating institutions that summarise all data collected in the AUSSE from students and staff at an institution. The reports also include institutional results along with national and international results to facilitate sharing, collaboration and benchmarking findings with other institutions. Sample reports that include national and international findings are also made available publicly. These reports serve as a starting point for evidence-focused conversations around student engagement. Institutions review their results, often using them as evidence to make internal improvements. Based on the findings from the reports, institutions may also run seminars with senior management, academics and professional staff as well as arrange focus groups with students to unpack the findings, discuss how improvements could be made and decide where efforts should be focused. Many institutions also choose to publish the reports publicly on their website, or send out a summary of the findings to their staff and students along with information on changes being implemented based on feedback received from respondents to the AUSSE.

Since 2007, a series of enhancement guides have been prepared to provide suggestions on ways in which results could be used by institutions to effect positive change (see: www.acer.edu.au/ausse). As outlined in these guides, findings from the AUSSE could provide information to potential students on how their institution engages students in learning and how this differs from other institutions. Data from the AUSSE could also be used for internal and external quality assurance of learning, teaching and support.

Findings could also be communicated to academic staff to help improve teaching and understand how students in their faculty and school are engaging in learning, and where improvements would be best focused. Data from the AUSSE may also provide institutions with insights into how students are interacting with institutional resources, such as the library and support services, and with other students and staff. This information can help institutions focus efforts where improvements need to be made. It also assists institutions in making resourcing decisions—what resources are currently being used, which are being underutilised and how resources could be better targeted to help student learning. Most importantly, understanding how students are involved in learning can help universities to engage students throughout their educational journey and promote student retention, completion and success.

Project leaders have facilitated discussions in the sector around improving engagement by hosting a series of cross-national workshops, conferences and forums in Australia and New Zealand. Hundreds of staff from universities, other tertiary education providers and government have participated in these events. At these workshops, AUSSE project leaders and colleagues involved in research on student engagement have presented findings from the collection, discussed how to interpret findings and examined best practice for improving student engagement at an institutional level. These workshops have helped staff from higher education institutions connect with each other and begin collaborating on projects aimed at improving student engagement, forming benchmark partnerships and getting different perspectives on their results from the AUSSE.

Although the AUSSE is still a relatively young data collection, the data have already started to influence change in the sector. Many Australian universities have committed to participating in the AUSSE on either an annual or a biennial basis as part of their commitment to enhance student learning. Some institutions have replaced their internal student experience surveys with the AUSSE. Participating in the AUSSE has allowed institutions to compare their results with other institutions, with groups of Australian universities, such as the Innovative Research Universities (IRU), Group of Eight (Go8) and Australian Technology Network (ATN), and with colleges and universities internationally that have participated in the AUSSE, NSSE or similar engagement surveys. Benchmarking results from the AUSSE encourages institutions to collaborate with each other when identifying areas in need of improvement and how positive change could be made. Comparing findings with those of other institutions also allows institutions to better identify their areas of strength and use these to market to and recruit prospective students.

Data from the AUSSE have also been used by institutions to conduct internal quality audits and reviews of the quality of teaching, learning and curriculum in schools and faculties. Many universities provide heads of school and course coordinators with faculty- or school-level findings from the AUSSE. Along with other data on student satisfaction, quality of teaching, financial data and information on enrolments, retention and completion of courses, results from the AUSSE are used by academic staff, heads of school and course coordinators to review the success of courses and the quality of teaching and learning. Institutional findings from the AUSSE have also been cited in many external quality audits conducted by the Australian University Quality Agency (AUQA) and data on student engagement is listed as a key measure of the quality of teaching, learning and learning support in the *AUQA Audit Manual* (AUQA 2009).

Specific roles for staff whose job description is to improve students' engagement have been formed by many institutions in recent years. Staff in these positions work to actively increase students' engagement by implementing programmes designed to promote activities and services to students that will contribute to their increased engagement with learning and subsequently also increased levels of retention and completion. Many institutions have used the findings from the survey to pinpoint areas where improvements should be made and devise programmes to enhance students' engagement. There are currently numerous small-scale projects being implemented by institutions across Australia in response to findings from the AUSSE.

At a broader level, the AUSSE has influenced government discussions and policy relating to higher education. The AUSSE and results from the survey have been referenced in many papers relating to quality improvement in higher education. The Bradley Review cited the AUSSE as one way of measuring quality in higher education. The Bradley Review went on to recommend that all accredited higher education providers should obtain information on their students' engagement by conducting the AUSSE, and that findings from the survey and how institutions are addressing issues and improving student engagement be made publicly available. The Bradley Review suggested that improvements to student learning and support were critically needed based on findings from the AUSSE, which show that levels of engagement among Australian higher education students are significantly lower than those of students studying in the USA and Canada.

Findings from the AUSSE, in particular the finding that Australian university students tend to have much less frequent interactions with staff than students at North American colleges and universities, were also cited in the Base Funding Review (Lomax-Smith et al. 2011). The Review takes findings from the AUSSE, to argue for more funding per student to improve the quality of teaching and learning at Australian universities.

In addition to the recent policy discussion and debate, the Australian government has made a commitment to ensuring the quality of the growing higher education sector in Australia through the *Advancing Quality in Higher Education* set of policies in which the AUSSE may play an important role. A recent discussion paper released by the Australian government relating to the proposed development of new instruments to measure the quality of Australian higher education named the AUSSE as 'the most extensive survey measuring the experience of current university students' (DEEWR 2011c). As part of submissions provided to the Australian government on the development of new instruments to measure quality, some university submissions have suggested that the AUSSE be adopted for use as an indicator of student experience rather than developing and using a separate new survey.

Stimulating Broader Research-Driven Insights

Over the first 5 years of the AUSSE, responses to the questionnaires have been collected from over 100,000 Australian staff and students on over 100 aspects of student engagement, support and outcomes. Arguably the most interesting findings

from the AUSSE have included the differences between Australian students' engagement and that of students in other countries, in particular the USA, and the seemingly vital link that has emerged between student support, engagement and success.

Comparing the way in which Australian students spend their time with that of students in the USA reveals many differences between the two groups of students. Australian students are more likely to study part-time and externally, while American students are more likely to be studying full-time and living on campus. Australian students spend a greater amount of time working for pay off-campus, and less time preparing for class than American students. Australian students are also more likely to report spending time providing care for dependents and more time travelling to campus.

Looking at Australian students' level of engagement also reveals many differences. Australians are far less engaged than their North American peers overall. This is particularly marked for students' involvement in enriching educational activities. By later year, around a third of Australian students have participated in a practicum, internship, fieldwork or clinical placement. This compares with around half of all American students in their senior year. Around one in four senior-year American students have studied a foreign language, yet less than 20 % of Australian later-year students have done the same. American students are also twice as likely to have given time volunteering or been involved in community service as Australian students. The lower levels of engagement in beyond-classroom activities are concerning, and many Australian institutions are focusing their efforts on improving students' involvement in these very important and enriching activities.

American students also report much greater levels of institutional support than Australian students do. While overall both Australian and American students rate the quality of their relationships with other students, teaching staff and administrative personnel and services quite highly, American students report much better quality relationships with others at their institution across the board. American students also report greater levels of support from their institution to help them succeed academically, cope with non-academic responsibilities and socialise with others.

While most Australian students report high levels of support, there are some concerning findings emerging for students reporting a low level of institutional support. Students who have poor relationships with others at their institution or who report very little support from their institution are much more likely to have departure intentions—they have seriously considered or plan to leave university before finishing their study. Students who report greater than average levels of support are also significantly more satisfied and are much more likely to be highly engaged in learning than students who report lower than average levels of support, and who are more likely to have seriously considered leaving (Coates and Ransom 2011).

Students' relationships with teaching staff appear to be of critical importance to retaining students in their studies. Recent research based on findings from the AUSSE has found that around three-quarters of students who rate their relationships

with teaching staff as 'poor' have seriously considered leaving their institution before completing (Richardson 2011). This contrasts with around one-fifth of students who rate their relationships with teaching staff as 'excellent' (Richardson 2011). Less than one-in-ten Australian teaching staff report that the majority of their students discuss class materials with them, compared with around one-third of American faculty (Richardson 2011). This suggests that students are not having sufficient contact with their lecturers and tutors, and that for some students this may manifest itself as a feeling of a lack of support. Giving students more opportunities to access their teachers may help students feel more supported academically and may help retain students in their study.

Retaining students in higher education is of vital importance, and data from the AUSSE suggest that engaging students in learning and providing a supportive learning environment for students help reduce students' departure intentions. While results from the AUSSE show that the quality of students' relationships with teaching staff is closely linked to their satisfaction and departure intentions, when asked to rate the importance of student satisfaction and retention, only a quarter of teaching staff felt that retention of students is 'very important' while over half felt that student satisfaction is 'very important' (Richardson 2011).

Concluding Ideas

New ideas can seem adventurous and compelling, casting alluring prospects for creating fresh ideas and value. Working from a platform of large-scale multi-year implementation, the AUSSE seeded and sustained new conversations about student engagement in Australian higher education. It has provided new data and discussions on how students are learning at university, how academics teach and what can be done to make things better.

As this book suggests, the creation and implementation of new data collections is often the most profound contribution of any large-scale change agenda. As data collections are embedded and routinised in organisational structure, their attractiveness tends to fade. Yet for each learner, the significance of engaging in effective educational practice remains. How, then, to sustain commitment to an essentially enduring phenomenon? One approach is perpetual marketing—essentially, sustaining the allure of the original creation. Another is to embed data into policy and link it with various regulatory and monitoring initiatives. Each carries opportunities and costs and as our introductory remarks suggest, intersect with a range of additional policy prospects. As our chapter has flagged, steering an effective course is essential to the prosperity of the collection, and of high-quality data for stimulating and improving student engagement.

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Chapter 5
The New Zealand Experience

David Tippin

National Perspectives on University Student Engagement

Compared to many other OECD countries, the New Zealand university system is a compact and cohesive one. It consists of eight publicly funded institutions, with a combined full- and part-time enrolment of about 182,000 students (in 2010). Each university offers programmes at both the undergraduate and postgraduate levels, and all have doctoral programmes, but there is considerable variation in the scope of available academic programmes. The size of institutions also varies, ranging from about 3,500 at Lincoln University to 41,000 students at the University of Auckland. Most of the others are in the 15,000–20,000 student range. The majority of universities operate from multiple campuses and one, Massey University, has an extensive distance education programme. All universities are also required by statute to undertake research and engage in research-informed teaching.

New Zealand universities function under considerable funding pressures, which affect resources available for student engagement and learning. In its briefing to the incoming government in 2008, the Ministry of Education observed that 'direct government subsidies to providers in New Zealand are relatively low by international standards, and the proportion of tertiary funding through student support is relatively high' (New Zealand Ministry of Education 2008, p. 26). About 58 % of the overall government funding for tertiary education goes directly to tertiary institutions (the remainder is given to students through support allowances), compared to an OECD average of 82 % (Universities New Zealand 2008). State funding to universities is supplemented by other sources, such as tuition fees (with a government-imposed cap on annual increases) and research income. There are enrolment caps for some higher-cost programmes of study, and each university carries more domestic students than the number for which it receives government funding. New Zealand universities, on a per full-time student equivalent basis, are generally

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considered to be underfunded by government compared to their Australian counterparts by an estimated 20–25 %.

A further factor impinging on student engagement occurs at the level of individual academic staff. The New Zealand government, similar to several other countries, has linked institutional funding levels to research performance. This is done through assessment of the performance of individual academics. The third round of the Performance-Based Research Fund (PBRF) exercise (begun in 2003) will occur in 2012. Survey research of a sample of New Zealand academics indicates that one likely outcome of a university management expectation on achieving high PBRF results is that academic staff perceive that research is more highly valued and rewarded than teaching (Curtis and Matthewman 2005) and will allocate their time accordingly. In the context of gradually increasing class sizes, the research emphasis may contribute over time to a reduction in time available for student–staff interaction, and reduced staff availability.

The university student body is increasingly diverse. Almost 13 % of enrolments in New Zealand universities are international students (about half the proportion that exists in Australia). International students in New Zealand are not distributed uniformly amongst the universities—the proportions range from a low of 10 % to a nearly one-third. A further 10 % of students are Māori, and over 6 % have a Pasifika[1] identity. While most New Zealand university students (74 %) are in full-time study, the proportion of part-time undergraduate students is relatively high compared to other OECD countries (New Zealand Ministry of Education 2011d; OECD 2010). Finally, about 16 % of students engage in external or distance learning (New Zealand Ministry of Education 2011b). Many of this latter group of students are female, drawn from older-age categories, study part-time and in the labour force on a more or less full-time basis (Poskitt et al. 2011).

From 2005 to 2010, the number of undergraduate-level degree enrolments has remained almost static. The growth in university enrolments has largely been at the postgraduate level, where student numbers have increased by nearly 29 % in the last 5 years, partly in response to such factors as government funding changes and student perception that postgraduate qualifications proved a competitive advantage in the employment market (New Zealand Ministry of Education 2011a; Universities New Zealand 2010).

A number of issues may reflect the nature and levels of student engagement in New Zealand universities. Attrition is an ongoing concern. The completion rates are relatively low compared to other OECD countries—only about two-thirds of bachelor's students have completed a typically 3-year degree or equivalent within 8 years. There is also a considerable variation in the completion rates amongst student subgroups, with Asian students being much higher, and Māori and Pasifika students considerably lower. The latter two student groups in New Zealand are drawn from relatively disadvantaged sections of the population in socioeconomic terms.

Part-time students are at a higher risk of not completing their degrees. Only about 55 % of part-time students complete their undergraduate degrees within 8

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[1] A person of Polynesian, Micronesian, or Melanesian descent.

years of commencing, and 26 % of part-time students drop out in the first year. The completion rate for full-time students is 81 % (New Zealand Ministry of Education 2011c; Radloff and Coates 2011).

A final emerging issue for New Zealand undergraduate student engagement is in the level of preparation and adaptability of high school students for university-level study. Most domestic high school students now enter university having completed a qualification known as the National Certificate of Educational Achievement (NCEA). The NCEA, established in 2004, is controversial for a number of reasons, but the issues most germane for universities include student expectations of the frequency of assessment; student understanding of their academic progress, literacy and writing competencies; the ability to adjust to university teaching styles; and university expectations that students will be independent learners. Partly as a response to these issues, university entrance requirements, which are set by the national quality assurance body (the New Zealand Qualifications Authority), are being strengthened.

Development of the Student Engagement Data Collection

Prior to 2007, each of the New Zealand universities had its own program of internal surveying of students, and all eight universities participated in a national university-sponsored survey of graduates' employment and further study destinations. Most of the internal surveys focussed on matters related to student experience and satisfaction with academic matters and support services, and could be administered and analysed at various levels, such as qualification, overall program of study and/or whole of institution. Some surveys concentrated on specific student subgroups, for instance, international students, and some surveys had benchmarking partners at other institutions either domestically or internationally.

Some of the interest in an organised approach to assessing and understanding student engagement in New Zealand universities was stimulated by the convening of a national symposium on 'Measuring and enhancing engagement with learning' (New Zealand Universities Academic Audit Unit 2006). New Zealand has a strong and well-developed quality assurance culture, supported by both the national government and the universities, but one weakness many quality assurance regimes internationally have is an overdependence on measures of inputs (such as resources and quality of teaching staff) and outputs (such as satisfaction measures, and retention and completion rates), at the expense of understanding the engagement of students in their own learning (Coates 2005). The symposium was convened to address those issues in the New Zealand context. Among the points of agreement arising from the symposium was a consensus that relatively little was known about what educationally relevant activities students were involved in, how frequently they were involved in them and how these activities contributed to or inhibited desirable educational outcomes.

One other consequence of the 2006 symposium was a growing interest in the use of the Australasian Survey of Student Engagement (AUSSE). The AUSSE survey, an adaptation of the American National Survey of Student Engagement (NSSE), was first administered within a single university in New Zealand in 2007. The participation rate grew quickly to 16 survey administrations by 2011, with all universities having used the AUSSE at least once. The questionnaire used in New Zealand was similar to the Australian one, with some adjustments to further refine the response options for such variables as the New Zealand ethnic context. A random-sampling approach was used to select participants, and some universities over-sampled key student subgroups (such as Māori and international students) in order to ensure adequate response numbers.

Most students were offered the option of completing the survey online or by hard copy. Since the introduction of the AUSSE several years earlier, no national promotional strategy has been devised. Universities generally used promotional and follow-up techniques similar to those adopted for internal surveys (institutionally specific invitation letters, e-mails, texting, face-to-face publicity, mobilisation of student associations and teaching, incentive prizes etc.). The Australian Council for Educational Research (ACER), the survey coordinating body, also provided suggestions for promotion, emphasising the value of a year-round cyclical approach to communicating the AUSSE and how its results were/would be used. Post-survey student feedback suggested that the 'newness' of the AUSSE survey—in the sense that most students had never been asked 'engagement-type' questions before—was also an incentive for some students to participate.

Contexts and Patterns of Use and Participation

One of the issues that New Zealand universities had to address was how to integrate a benchmarked, internationally comparable survey like the AUSSE with their own internal surveying activities. Response rates for internal surveys vary widely, and there was a concern that student responses to internal surveys might be negatively affected by a major additional survey. To control survey demands on students and address the response rate risk, some universities chose a pattern of an annual alteration of the AUSSE with one or more internal surveys.

From 2007 to 2010, 19,043 New Zealand university students completed the AUSSE, comprising 9,999 first-year undergraduates and 9,044 later-year students. For the 2010 version of the survey—in which seven of the eight universities participated—the national response rate was about 29 %. First-year students' participation rate tended to be slightly higher (30.1 %) than that of later-year students (average 27.6 %). Although there have been isolated instances where response rates for some survey categories, such as first-year students, have exceeded 50 % at a university, overall response rates in the 25–35 % range were more common. These response rates did not seem to vary significantly from what each institution achieves with their internal surveys.

The AUSSE survey analysis in New Zealand uses post-stratification weighting to ensure that the responses represent the target population. On a weighted basis, the 2007–2009 respondents showed the following demographic characteristics: 55.5 % of respondents were female; 6.6 % were international students; 81.7 % had English as the major language in their home; 9.1 % were Māori and 5.5 % identified as Pasifika.

The educational characteristics of the 2007–2009 respondents groups (on a weighted response basis) were: 92.6 % attended university on a full-time basis; 19.4 % were residential students; and 6.3 % were involved in external or mixed-mode study. The most predominant fields of study of respondents were humanities (27.9 %), management and commerce (17.1 %), science (14.3 %) and health (11.1 %). Engineering and education were both in the 7–8 % range.

Key Findings and Observations

This section draws on a summary of findings from the 2007–2009 New Zealand AUSSE surveys prepared by Radloff and Coates (2011).

Participation in the AUSSE affords New Zealand universities the opportunity to engage in cross-national comparisons of their results with Australia and the USA. Generally, there were substantial differences in the level of undergraduate student engagement between New Zealand and the USA, such as in measures of 'active learning' and 'student and staff interactions'. The engagement of undergraduates in New Zealand was substantially lower. The lower New Zealand scores may partially reflect differences in resourcing of universities, and the more intensive educational experience that is available at many undergraduate institutions in the USA.

More immediately relevant to the local educational environment are comparisons with Australian universities. There was little difference between New Zealand and Australian institutions in most of the scale-level measures of student engagement. Analysis of the 2007–2009 data indicates that the two areas where there were significant differences were the relatively lower levels of engagement in 'active learning' and 'work-related learning' in New Zealand first-year undergraduates. The scores on both of these scales may be linked to the way that curricula are organised and delivered, and in the opportunities that are afforded to students to learn in innovative ways.

The scores for individual items included in the 'active learning' scale shed further light on some of the issues and challenges facing New Zealand universities. For 2007–2009, 12.8 % of first-year undergraduates indicated that they 'never' asked questions or contributed to discussions in class or online (compared to 5.6 % of their Australian counterparts). The 2010 New Zealand results for this category deteriorated further to 13.6 %. The picture amongst later-year undergraduates was also unsatisfactory: while nearly 41 % of New Zealand students reported that they often or very often asked questions or contributed to discussions, this still represented a nearly 15 % negative difference compared to Australian students. Another AUSSE item asks students about how frequently they make a class or online presentation.

About 48 % of New Zealand first-year students reported that they have 'never' given an in-class or online presentation, and this figure improved to about 24 % for higher-year students. Both figures were much higher than what Australian students reported. In 2010, the figure for first-year New Zealand students in this category rose to almost 53 %.

More encouragingly, New Zealand students reported similar levels of engagement as Australian students on some other 'active learning' measures. For example, the frequency of tutoring or teaching other university students was similar in both countries. In terms of discussing ideas derived from readings or classes with other students, New Zealand respondents reported slightly higher frequencies than their Australian counterparts did.

Learning that is integrated with work and employment opportunities was another scale on which New Zealand students were at a significant disadvantage relative to Australian students. As might be expected, the level of work-integrated learning of higher-year New Zealand students significantly exceeded that of first-year students. However, the gap with Australia remained. Whereas about 22.1 % of New Zealand later-year students reported participation in an industry placement or work experience, the comparable Australian figure was 31.4 %. Similar gaps exist on other work-integrated measures such as the percentage of students who felt they were acquiring job- or work-related knowledge and skills, how frequently students explored applying their learning in the workforce and improving knowledge and skills that will contribute to their future employability. Not surprisingly, in terms of perceived outcomes related to work-readiness, many New Zealand students reported they were not well-prepared—over one-quarter of respondents indicated that they have never thought about how best to present themselves to potential employers, explored where to look for employment or networked to seek out job opportunities.

Several other findings from the AUSSE are noteworthy. Many New Zealand students struggled to achieve a balance between time allocated to their studies and other demands such as part-time work for pay. New Zealand students were generally quite satisfied with their overall university experience—in 2010, 83 % of first-year students and 85 % of higher-year students rated their overall educational experience as either good or excellent. Most students were also satisfied with the quality of academic advice, and nearly nine out of ten students would probably or definitely attend the same university if they were starting out all over. Despite these generally positive sentiments, departure intentions remain a concern, with nearly 30 % of New Zealand respondents in all years in the 2007–2009 surveys reporting that they have seriously considered or planned to leave their university prior to completing their degree (giving reasons such as convenience, academic concerns, career prospects and finances). Because attrition rates are high and completion rates are low within an international context, and government funding is partly contingent on successful completions, the disquiet expressed by a significant minority of students concerning possible departure is a matter of concern to all New Zealand universities. Finally, there is evidence from some questions—such as interaction with students from other ethnic groups—that suggests that some international students feel isolated from other members of the student body and not as well integrated into university student life.

How Institutions can Use the Data

The AUSSE data present several challenges to any university. First, the response data are multilayered, and part of a typical institutional report uses statistical representations, such as weighted means, that may not be familiar to all users. Second, the potential audience for the data is very diverse, including senior and mid-level academic leaders and managers, teachers and administrators, standing committees, staff with student services, marketing or communications responsibilities and students themselves. Internal presentations and reporting at the appropriate level of detail and sophistication must be carefully weighed for multiple audiences. Third, integrating and triangulating the AUSSE data set with other institutional sources of knowledge about student behaviour, and translating the data into options for educational change and improvement, are processes that require leadership, creativity and skill at consensus building and implementation.

One of the advantages that New Zealand has had as a relatively small country is that the eight universities started an ongoing dialogue about the AUSSE prior to its initial adoption, and have continued this discussion through the post-survey interpretation and implementation phases. National-level analysis and cross-institutional collaboration have been central to New Zealand's AUSSE involvement from the outset. Starting with a symposium in 2006, the universities have continued to meet periodically: an initial meeting in late 2009 was followed by the country's first university institutional research colloquium in 2010 to discuss potential collaborative projects. In late 2011, Ako Aotearoa, New Zealand's national centre for tertiary teaching excellence, published *Student Engagement in New Zealand's Universities* (Radloff 2011), a series of research articles on various aspects of the national-level data.

Consideration of national-level action-research projects using the AUSSE data remains under consideration. The challenge of effective student orientation and induction and its alignment with such issues as student understanding of academic norms, course standards and expectations—issues of common concern, and key building blocks in an engaging first-year student experience—has been identified as a possible future project. Its features could include: a national inventory of current induction/orientation practices, and assessment of their strengths and weaknesses in contributing to student engagement; from a menu of improvement strategies, participating universities could implement changes most suitable to their local educational environment and needs; and readministration of the AUSSE to determine the impact on various engagement measures, student behaviour and student learning (as measured by one or more previous AUSSEs). The outcome could be a national model of best practices concerning orientation and induction, which will better meet the needs of new students and how universities design support services for various stages of the student academic lifecycle.

Another suggestion for a national project focuses on improving student career readiness and employability. The AUSSE contains a number of questions related to this topic. Existing survey responses would be evaluated to establish baseline

measures, a small list of target areas for improvement over 2–3 years would be identified (e.g. changing the curriculum to increase student opportunities to work in teams or improve presentational skills), followed by a reassessment using the AUSSE.

While national-level collaborative projects remain at the planning stage, individual New Zealand universities have been applying the AUSSE data in a variety of ways. This process can start even before the AUSSE is administered for the first time. For example, some teaching staff were asked to predict selected AUSSE results (such as time allocations) for their field of teaching as part of a professional development exercise—the idea being to compare staff perceptions of what their students did (which are often based on personal interactions, stories etc.) with students' own reports of their behaviour.

New Zealand universities appear to analyse the data in multiple ways. An initial issue is what is considered as a 'significant' result or difference. A scale score or percentage difference of five or more points between groups is often used as a guideline as to what constitutes a meaningful educational effect (Radloff and Coates 2011). A focus on scale-level scores is a common starting point, but the universities generally concentrate on scales such as academic challenge and supportive learning environment over which they believe to have the most direct influence (Comer and Brogt 2011). Considerable analytical work has also been undertaken on individual items where scores do not meet expectations. The percentage of students reporting 'never' having engaged in an activity can be of particular interest. One university has found that a good approach is to identify areas of concern/further investigation at the scale-level and conduct a detailed question-by-question analysis of each of the scale components across faculties in order to focus on specific areas of interest. Faculties are then asked to triangulate both the quantitative and textual response data with other data sources and/or conduct further investigations. The outcome of this process is generally a short list of localised initiatives, the results of which are reported in due course to a university-level committee responsible for teaching and learning matters.

Changes in item scores between first-year and later-year students, and time series data that accumulate as more AUSSE surveys are administered (often in alternate years to allow changes to be embedded) are also important (Krause and Coates 2008). Many items in the New Zealand results show little movement from earlier- to later-year students. Also of strategic and policy interest are the differences between student subgroups, such as domestic versus international (the universities are encouraged by the government to attract more of the latter group), Māori/Pasifika versus other students (there are national policy objectives regarding indigenous student participation and achievement) and full-time versus part-time students. International students, for example, report significantly higher levels of career readiness (Van der Meer and Comer 2011).

Field of study is also the subject of some reflection in considering the AUSSE results. New Zealand universities have found that variations in the AUSSE results by field of study or by teaching faculty can be partly attributable to different disciplinary teaching styles and learning environments, and the nature of the curriculum. For

example, project-based assessments used in many professional faculties contribute to differential student scores within a university.

The AUSSE results are generating or contributing to a number of on-the-ground educational improvement projects in New Zealand universities. Many of these focus on aspects of the first-year undergraduate student experience. One university's arts faculty has organised a faculty-wide programme to assist first-year students in transition and to identify students who are encountering problems early in their university study. Senior student mentors keep in contact with groups of students, and tutorial attendance and submission of assignments are tracked (Henley and Cameron 2010). Future AUSSE survey results concerning key indicators (e.g. time allocations) will be integrated into the evaluation of the programme. Another university is considering how it could integrate the AUSSE data with its internal survey of incoming first-year students concerning their expectations and readiness to commence study, and an 'academic health check-up' self-assessment instrument that is administered early in the academic year.

Another area of significant interest is skills development. The AUSSE data indicate that many New Zealand students either were lacking opportunities or did not engage in activities that could develop essential academic and employment-related skills. This has led to a number of tailored improvement programmes, such as earlier introduction of legal writing skills for law students and writing skills training for creative arts students, and reworking of a first-year business curriculum to focus on essential business skills.

Later-year students have often reported low levels of frequency of making a class or online presentation. This has led to a focus on improving presentation skills. One engineering school is providing staff advice and assistance to senior students on how to prepare and present seminars, and material on seminar presentations is included in course outlines. In a science faculty, postgraduates in laboratories are advising undergraduates about presentations, including preparatory drills and rehearsals. Some courses provide time for formative sessions to assist students in preparing presentations in advance of a final seminar.

Analysis of the New Zealand data indicates that students reporting strong engagement with work-integrated forms of learning have reduced departure intentions (Harris and Col 2011). Universities are exploring whether more explicit acquisition of work-related knowledge and skills (through activities such as capstone courses and internships with employers) and working more closely with careers services can mitigate departure intentions.

In the 2010 AUSSE survey, only 27 % of first-year New Zealand students and 26 % of later-year students reported they spent 16 h or more weekly in preparing for class. While these figures are a slight improvement on the 2007–2009 results, the amount of time devoted to preparation remains a concern, especially amongst later-year students (nearly 58 % of this group prepare 10 h or less weekly). Marshall's (2011) analysis indicates that the AUSSE's question of preparation for study is positively correlated with many other indicators of student engagement, and he suggests that asking students about their preparation time is a good way of identifying academically at-risk students. Some university initiatives are directly related to this

type of analysis. Course outlines are being reviewed to ensure, among other factors, that clear expectations are given to students about the time required to succeed, and that students understand expectations involved in learning activities such as group projects and presentations. The responses to AUSSE questions related to student workload issues and time management are also being matched up with other internal survey data (e.g. course evaluations and grade point averages) to better understand the relationships between workload levels and achievement.

The AUSSE data are also beginning to impact on course design and delivery methods. In New Zealand, the frequency that students engage in elements of 'active learning' is comparatively poor. A common university response has been to examine both individual courses and the flow of the curriculum over the entire undergraduate experience to ensure that students have opportunities to engage in discussions and mini-debates, make presentations, work in teams and on group projects etc. One obstacle, especially in larger enrolment classes, is that traditional teaching spaces such as lecture theatres are not conducive to being used in a flexible manner that would advance active learning. Another issue is the limited availability of smaller learning spaces and sufficient teaching staff time to implement more blended learning approaches. Consideration is also being given to offering professional development opportunities to teaching staff that explicitly address engaging students more fully in active learning.

Two other institutional-level areas for change deserve mention. First, many New Zealand universities have internal grants to pilot and fund innovations and improvements in teaching and learning. At one university, where the grants have traditionally been used primarily at the individual course level, consideration is being given to allocating a portion of the available funds to support faculty-level improvement projects. Some of these projects address issues arising from student engagement data, and their impact will be partially assessed through future AUSSE surveys to see if significant changes in engagement indicators have occurred.

The second area is the impact that measuring student engagement has on existing quality assurance approaches, processes and policies. At the individual course level, the AUSSE is stimulating reconsideration of the types of questions posed to students in course evaluations, moving away from long-standing emphases on teacher behaviour and student satisfaction and towards questions that probe activities that lead to enhanced student engagement and desirable learning outcomes. Where the AUSSE indicates a relative lack of desired student behaviours, formal curriculum reviews, targeted monitoring mechanisms and revised professional development (e.g. in encouraging greater student staff interaction) are among the response strategies. At the policy level, student engagement results are encouraging one university to modify its guidelines on student group work, partly to support and encourage more use of this pedagogical approach. Benchmarking relationships are also affected. New Zealand universities have had benchmarking relationships with other universities both domestically and internationally, but the commonality of administering the AUSSE survey in both Australia and New Zealand means that there are greater opportunities for New Zealand institutions to compare themselves with their Australian counterparts using a common student engagement feedback instrument.

Next Steps for Assessing and Improving Student Engagement

The cross-institutional use of the AUSSE, New Zealand's comparatively compact university system, and ongoing issues such as retention and degree completion rates suggest that a national dialogue about student engagement will continue. New Zealand universities will continue with institutional projects to enhance student engagement, but there remains much scope for cross-institutional collaboration. This could include common issues, such as orientation practices, the curriculum and its delivery—encompassing, for example, active learning, work-related learning and student–staff interaction—and policy settings that support student engagement. Learning space design and reallocation of resources to improve learning environments will also need increased attention. While databases of best practices or even national models may emerge, an even more important consequence of this conversation will be a greater institutional understanding of what really counts in how New Zealand students learn and the outcomes they achieve.

The assessment and enhancement of student engagement need to develop further in New Zealand in at least three ways. First, engagement-related survey data need to be explored in more depth, particularly the interrelationships between questions. The data also need to be firmly embedded into mainstream databases that provide information on academic performance, retention, completion etc. It is through initiatives such as these that student engagement issues will be pushed further to the forefront of major institutional processes such as strategic planning, the refinement of key performance indicators and evidence bases used for quality assurance and monitoring.

Second, designing and implementing manageable projects of appropriate scale is essential. While there is room and necessity for institutional-level interventions, small local projects—at departmental, faculty or programme of study levels—can be a way of moving the student engagement agenda forward, especially if they are accompanied by a strong commitment to share the results with colleagues.

Third, the contributions to student engagement by various groups of academic staff need to be considered. The student engagement experience is bound up with interactions with permanently employed academic teachers, smaller classes and tutorials often led by postgraduate students and an increasing number of teaching staff hired on a casual basis. For the engagement agenda to be effective, universities need to ensure that all of these groups of academics are working with their students from the same perspectives, and that messages to the various groups are consistent.

A final longer-term issue for all New Zealand universities is the migration of a student engagement emphasis into the realm of postgraduate study. Government funding priorities, and increased student demand for postgraduate qualifications, suggest that universities need to bring a greater engagement focus on their postgraduate student experience. Engaged and highly motivated undergraduate students are ideal candidates for postgraduate work, and the postgraduate curriculum must ensure that students are participating fully in more complex activities such as those that contribute to higher-order forms of thinking.

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Chapter 6
Student Engagement in South Africa: A Key to Success, Quality and Development

J. Francois Strydom and Melody M. Mentz

Introduction

The National Development Plan: Vision for 2030 prepared by the National Planning Commission (NPC) of South Africa suggests that universities have three functions in modern society:

> First, they are responsible for the education and training of professionals and other high level human resources for the wide range of employment needs of the public and private sectors of the economy. The second function of higher education is to produce new knowledge and find new applications for existing knowledge. In addition to fundamental research, in a country such as South Africa, this knowledge task is about innovation and application, local and global, and about knowledge that equips people for a society in constant social change. Third, higher education provides opportunities for social mobility and simultaneously strengthens equity, social justice and democracy. In the globalizing knowledge society, higher education becomes increasingly important" (summarised by Badsha and Cloete 2011, p. 2).

The National Development Plan intends to create a 'virtuous cycle of growth and development' to 'eliminate poverty and to sharply reduce inequality' in which higher education has a critical role to play (NPC 2011, p. 2). However, higher education in South Africa is plagued by enduring inequalities and major inefficiencies with low levels of success and throughput (Scott et al. 2007). In light of this, this chapter will argue that student engagement research can help higher education institutions in South Africa fulfil two of the key functions outlined by the National Development Plan, namely, the education and training of high-level human resources and the strengthening of equity, social justice and democracy. Student engagement research can enable these functions, as the results can be used to improve the quality

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of teaching and learning, especially for undergraduates, and to create conditions that are more conducive to student success thereby promoting equality and social justice.

To illustrate how student engagement data can enable these functions of universities, the chapter will show how student engagement data

- provide institutions with information on the processes that influence student success;
- enable institutions to develop a systematic, structured approach to the improvement of the quality of teaching and learning; and
- empower institutions with information on the prevalence of effective educational practices that can be used to enable the next generation of academics to create effective education environments for students in a differentiated higher education system.

Given that national student engagement research in South Africa was only initiated in 2009, it must be kept in mind that student engagement is a young research field in South Africa.

Higher Education in South Africa Pre- and Post-Apartheid

Higher education under the apartheid regime was designed specifically to maintain the social, political and educational advantage of white students through a privileged and superior educational system, whilst limiting access to resources and high-quality learning for students of colour. One of the key characteristics of higher education under the apartheid government was the skewed investment of resources in the system, which was divided clearly along racial lines and, for the most part, students of one racial group had access to the educational structures and resources while other racial groups did not (CHE 2004; Lange 2006; Letseka and Maile 2008; OECD 2008). Overall, participation rates in higher education were low, did not reflect the demography of the country and did not contribute to the skills development needed for sustained growth and development in the country (Lange 2006).

Apart from the divide in the system along racial lines, institutions were further classified in terms of their typology (universities, technikons [technical colleges] and colleges). Each institution type was divided along racial lines, had its own qualification structure and awarded divergent qualifications (OECD 2008). One of the most significant changes in the post-apartheid higher education landscape has been the radical restructuring of the sector through mergers and incorporations in 2004 (Jansen et al. 2007) from 306 separate higher education institutions (HEIs)—private and public—to around 70 new institutions (Jansen et al. 2007; OECD 2008). The new public higher education landscape consists of 23 public HEIs: 11 'traditional' universities (focusing on research and a mix of discipline-based and professional degree qualifications); 6 universities of technology (focusing on a mix of technological, vocational, career-oriented and professional programmes leading to certificates, diplomas or degrees); and 6 'comprehensive universities' that combine both types of HEIs (CHE 2004) In

2014 two new universities have been established, making it too early to determine their exact typology.

After the demise of apartheid, there was an urgency to widen access to quality education to all citizens. As will be illustrated in the discussion below, although the goal of widening access to higher education for historically disadvantaged groups has to some degree been accomplished, the ideal of equity in student outcomes for all groups has not been attained and has become one of the most critical factors facing the sector.

In South Africa, in line with the international trend of expanding participation, the overall gross participation rate in public higher education increased from 14 % to just over 16 % in the period from 1996 to 2006 (OECD 2008). Of critical concern, however, is that participation rates continue to vary vastly between racial groups, where as many as 55–64 % of the white cohort is enrolled in higher education, and as few as 12 % of the black African cohort of the same age group (CHE 2009; Scott et al. 2007).

However, an examination of longitudinal enrolment data illustrates that the overall demographic profile of the students enrolling at institutions has changed dramatically over the past 15 years, both in terms of race and gender. Enrolments for the black African and coloured[1] cohorts have more than doubled since 1994, and these two groups of students currently comprise more than 70 % of the total enrolments in South African higher education (Scott 2009). There are now more female students in higher education than male students, and there are now more black African students enrolled in public higher education than white students (Jansen et al. 2007).

In contrast to the advances in access to higher education, an examination of the throughput and graduation rates of the students who are enrolling in South Africa presents a bleak picture. In their review of South African education, the OECD points out that apart from the historically white English-medium institutions, retention rates for the system have declined after 1997 (OECD 2008). In the only cohort study available to date in South Africa, Scott et al. (2007) analysed throughput rates (calculated by determining how many students in a given cohort complete their degrees and graduate within the stipulated time), drop-out rates and delayed completion of degrees. The Department of Higher Education and Training (DHET) made cohort data available for the study and the researchers tracked the 2000 cohort for the purposes of their analysis. By the end of 2004 (5 years after enrolling for the first time), only 30 % of the total first-time entering student intake had graduated, a further 56 % of the intake had left their original institutions without graduating and 14 % were still in the system. A best estimate of the total completion rate (when transfers and those still in the system are taken into account) for the cohort was 45 % (Scott et al. 2007). A study by the Human Sciences Research Council (HSRC) found that, on average, only 15 % of students finished their degrees in the allotted time (MacGregor 2007). HSRC analysts have estimated that these dropout figures translate to over 3 billion Rands (approximately USD 300 million) worth of state subsidies annually (Letseka and Maile 2008). Although these overall performance trends warrant attention, an analysis of throughput rates by race suggests that the yoke of inequality remains a heavy burden carried by many historically disadvantaged students in higher education. When the overall participation rate of black African students is combined with attrition figures of over 50 %

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[1] A person of racially mixed parentage or descent.

and low completion rates, it can be concluded that the higher education sector is catering for less than 5% of the black African and Coloured age group (Scott et al. 2007).

A Comparative Perspective

Badsha and Cloete (2011) characterise the current South African higher education system as being a medium knowledge-producing and differentiated system, with low participation and high attrition rates, with insufficient capacity for adequate skills production and having a small 'number of institutions which are in "chronic crisis" mode' (p. 4). From a knowledge-producing perspective, the system was placed in the range between 27 and 33 by the Shanghai Jiao Tong Academic Ranking of World Universities (ARWU) 2008 country rankings, along with the Czech Republic, Hong Kong, New Zealand and Ireland, and the top university (University of Cape Town) in the 200–300 range in the ranking of institutions. South Africa produces 37% of the publications of the African continent and is ranked 54th on the World Economic Forum (2009) global competiveness rating, in the same league as Russia (63rd), Brazil (58th) and India (51st), but well behind China (27th). The recent focus on differentiation in the South African system has shown that, based on knowledge production, the universities of Cape Town, Rhodes, Stellenbosch and Witwatersrand are in the high knowledge-producing category, all the other universities (with the exception of Walter Sisulu and Limpopo) are in the medium category and all the universities of technology are in the low knowledge-producing category (Badsha and Cloete 2011). Differentiation is not formally recognised for steering purposes, but discussions around the National Development Plan have made strong arguments in this regard.

In terms of participation and attrition, the aforementioned statistics show that the efficiency of the South African system in producing graduates leaves much to be desired with an enrolment rate that, according to Trow (2005), is characteristic of an 'elite' higher education system (15%) instead of the 'mass' higher education system (20–50%) that is needed for development. Badsha and Cloete (2011) emphasise that the current attrition levels when combined with low student performance in the system, are unacceptably high and wasteful, and that improving throughput and retention should therefore be a key priority. In addition, the improvement of the institutional capacity is critical if the overall efficiency of the system is going to be improved.

Development of Student Engagement Measures in the South African Context

Higher education institutions in South Africa are now faced with an uncomfortable tension. On the one hand, there is a need to increase participation in higher education so that the country is at least comparable to other developing nations and that the majority demographic groups are proportionally represented across all fields

of study. On the other hand, to date, the system has not been able to successfully accommodate those students who are currently enrolled. This tension can only be resolved if institutions can systematically identify and implement strategies that enhance student success for diverse student groups who are largely underprepared for higher education—even within the context of increased enrolments (Scott et al. 2007). The implication is that substantial changes to the educational process will have to be implemented if the situation is to be adequately addressed. Research on student engagement represents one way in which institutions in the South African context can begin to examine the educational process and identify factors inhibiting student success.

The measurement of student engagement in South Africa is far more recent than in the USA. To date, equivalent measures of the National Survey of Student Engagement (NSSE) and the Faculty Survey of Student Engagement (FSSE) have been adapted and administered nationally in the South African context, whilst adaptations of the Beginning College Survey of Student Engagement (BCSSE) and the Classroom Survey of Student Engagement (CLASSE) have been administered at a single institution. The discussion below outlines the development and scope of the student engagement measures in South Africa.

South African Survey of Student Engagement

In 2006, the Division of Student Development and Success (SDS), now part of the Centre for Teaching and Learning at the University of the Free State (UFS), requested permission from Indiana University Center for Postsecondary Research (IUCPR) to adapt the NSSE for use in South Africa, and to administer the revised survey, SASSE, for field testing purposes. Given the multilingual higher education context in South Africa, the original survey was contextualised, translated into Afrikaans (South Africa has 11 official languages of which one is Afrikaans, and a limited number of institutions in South Africa offer classes in Afrikaans and English), and thereafter back-translated, and piloted at the UFS for two consecutive years.

After examining the psychometric reliability and validity in South Africa at the UFS (Strydom et al. 2010), a national pilot of the SASSE was conducted at seven institutions by the SDS during 2009 and a second national study was conducted in 2010 (also at seven institutions, three of which participated in both administrations) (Strydom and Mentz 2009; Strydom and Basson 2010). Prior to the 2009 national pilot study, the content of the SASSE was reviewed by representatives from each of the institutions participating in the pilot to ensure applicability of all the items in the South African context. The survey instrument used in the 2010 data collection process was very similar to the 2009 instrument, with minor adjustments to difficult/ confusing demographic questions.

In 2009, the survey was conducted exclusively by paper-and-pencil administration, whilst, in 2010, institutions were given the option to administer the survey via paper-and-pencil or online. Given the limited access to technologies and internet at some institutions, it was not possible to administer the survey in an online format

only. Thus, in 2010, three institutions collected data by means of a paper-and-pencil administration, where a stratified, systematic sampling strategy was used to produce a robust, generalisable and representative estimate of first-year and senior student engagement. The remaining four institutions collected data by an online form of the SASSE. A census approach was taken with the institutions collecting data via the online survey, in which institutions provided email addresses of all their registered students and invitations to participate in the SASSE study were sent to each student at the institution.

The total sample of students in 2009 was 13,636 and in 2010 the sample comprised 9,442 students. In both national studies, the participating institutions were representative of all types of public HEIs in South Africa and in 2010, one private higher education provider also participated.

Lecturer Survey of Student Engagement

The Lecturer Survey of Student Engagement (LSSE) is based on the FSSE and was piloted in South Africa for the first time in 2010. As was the case with the SASSE, the LSSE was translated to Afrikaans and then back-translated for use in a multilingual higher education context. The LSSE survey was administered at three of the four institutions that administered the SASSE survey online. Similar to the SASSE, the institution provided email addresses of all staff members at the institution and an invitation was sent to staff members to participate in the LSSE. Two hundred and ninety lecturers have participated in the survey throughout 2012.

Beginning University Survey of Student Engagement

The Beginning University Survey of Student Engagement (BUSSE) is based on the Beginning College Survey of Student Engagement, and was administered at the UFS from 2008. In a similar process of translation and back-translation, the BUSSE was contextualised to be available in Afrikaans. To date, the survey has not been administered nationally.

Classroom Survey of Student Engagement

The Classroom Survey of Student Engagement (CLASSE)—both staff and student versions—were adapted and contextualised for the South African context in 2010, and these surveys were administered in 39 modules on two of the UFS campuses. The CLASSE surveys are available in both English and Afrikaans.

Student Engagement Trends Emerging from National Studies

Overall, results obtained from both national administrations of the SASSE have yielded very similar results across all benchmarks. Some of the findings that were consistent between both administrations are highlighted below.

In both 2009 and 2010, white students reported attending significantly more of their scheduled academic activities than black African students did. A possible explanation for this finding is the persistent socio-economic differences between white and black African students, which result in black African students often not having enough money to afford transport to attend scheduled academic activities. In addition, students consistently reported higher levels of collaborative learning than active learning activities, and first-year students reported less active and collaborative learning than senior students did.

Levels of interaction with staff were consistently low. However, students in both years reported significantly more interaction with staff for course-related matters than for out-of-class-related matters. As was the case with active and collaborative learning, senior students reported significantly higher levels of interaction with staff than first-year students did. Furthermore, male students reported higher levels of interaction with staff than female students did.

Students' reports of participation in enriching educational experiences were consistently low in both administrations. However, as expected, senior students reported participating in these activities significantly more often than first-year students did. Items related to interaction with diversity are of particular relevance in the South African context given the legacy of apartheid that continues to pervade society on multiple levels. Consistently within both samples, white students reported the least interaction with diverse peers, and females reported interacting significantly more frequently with diversity than male students. In contrast to many of the other findings where senior students reported higher levels of engagement, first-year students reported significantly more interaction with diversity than senior students did.

Despite their lower levels of engagement overall, first-year students consistently reported higher levels of support from the campus environment, and higher levels of overall satisfaction. Despite being historically marginalised within higher education, black African students and female students reported significantly more support from the campus environment than students from other racial groups and male students.

Consistently within both years of administration, students reported significantly more positive relationships with academic staff than with administrative staff. Lecturers who responded to the LSSE also indicated that students' relationships with administrative staff were less positive than their relationships with academic staff.

Applications of Student Engagement Data in South Africa

One of the critical challenges in higher education research, including engagement results, internationally and in South Africa, is to effectively translate research into practice (Kinzie and Pennipede 2009). The following section will reflect on how student engagement data have been used for institutional planning and monitoring, and how student engagement data have been used to build institutional capacity nationally.

Institutional Planning and Monitoring

Since the inception of the student engagement research project in South Africa in 2006, there has been a strong emphasis at UFS on sharing data within the institution to support and promote excellence in teaching and learning. As part of institutional planning and monitoring processes, school-level reports have been compiled and shared with deans and teaching and learning managers. The sharing of data was complemented by visits from international experts such as George Kuh, Jillian Kinzie and Vasti Torres of the IUCPR, with interactive discussions with various stakeholders on how to make use of student engagement data and the importance of student engagement research for student affairs.

More recently, changes in the organisational structure at the institution have culminated in the establishment of a Centre for Teaching and Learning (CTL). Established in 2012, one of its strategic objectives is to become a leading research centre on student engagement in South Africa. In addition, the centre will work closely with the UFS Directorate for Institutional Research and Planning (DIRAP), which aims to use student engagement research findings as one source of data for monitoring the institutional teaching and learning climate, and as evidence for external accountability.

Nelson Mandela Metropolitan University (NMMU), one of the other universities that participated in the 2009 national pilot study, has also used student engagement results in strategic planning. The results of the SASSE survey were released at a time when NMMU was in the process of formulating its strategic plan known as Vision 2020 and the data provided an excellent platform for evidence-based decision-making.

The SASSE survey was administered by the Strategic Planning Unit at NMMU in collaboration with the dean of Teaching and Learning. The approach from the outset was to inform senior management, the Deans Forum and academic staff of the purpose of the survey as well as the value of participating in the survey. This facilitated the process of sharing the findings internally since there had been a concerted effort to raise internal awareness about the survey and how NMMU would benefit from the findings. Thus, when the SASSE findings became available, they were first presented to the extended senior management forum with the primary objective of indicating how the survey results would be utilised to inform the teaching and learning strategies contained in Vision 2020. Thereafter, the deans were engaged in

processes of systematically communicating the findings to academic staff through the institutional and faculty-based Teaching and Learning Committees (TLCs). Additionally, the Dean of Teaching and Learning used the SASSE findings to identify key areas for improvement that needed to be collaboratively addressed by academic and professional support staff. In this way, the SASSE findings served as the basis for evidence-informed dialogue and strategic planning regarding targeted academic support interventions that would be needed to enhance student success at NMMU.

The University of Johannesburg (UJ) was one of the institutions that participated in both national studies. The institution has used its results as baseline data to understand and monitor institutional strategic goals. Its objective was to provide the 'preferred student experience' to students, aiming to become a leader in undergraduate education in South Africa. Over time, as UJ implements various initiatives (such as their First Year Experience [FYE] programme), the institution aims to use SASSE as one source of data on the effectiveness of the new initiatives for increasing student engagement and to refine and improve these initiatives over time.

Capacity Development

Developing capacity within HEIs is one of the critical challenges facing South African higher education. Therefore, developing institutional research and self-reflection using student engagement data was one of the key deliverables of the national project. Capacity development took place at the institutional level where institutions needed support with planning detailed sampling and compiling institutional data profiles used in the analysis of data. At a sectoral level, colloquia were held on improving undergraduate success, and users' workshops were held with representatives from participating institutions.

The two national administrations of the SASSE were conducted in collaboration with the Council on Higher Education (CHE). For the purposes of advocacy for research on student engagement and to promote good practice in teaching and learning within the higher education sector in South Africa, three national colloquia have been hosted in collaboration with the CHE (from 2009 to 2011). At two of these events, international experts in the field of student engagement (George Kuh in 2009 and Torres in 2011) were keynote speakers. The colloquia served as a platform for sharing the results of the national pilot studies with the sector, and in 2010 selected institutions shared how they have been integrating the SASSE results into institutional processes.

In 2010, the UFS hosted the first SASSE Users' Workshop, to which all institutions that had participated in the pilot study were invited. The division for Student Development and Success (now incorporated into the Centre for Teaching and Learning) invited an international expert, Jillian Kinzie, to facilitate discussions on how to promote engagement within institutions, and participants had the opportunity to analyse and interrogate their own institutional findings.
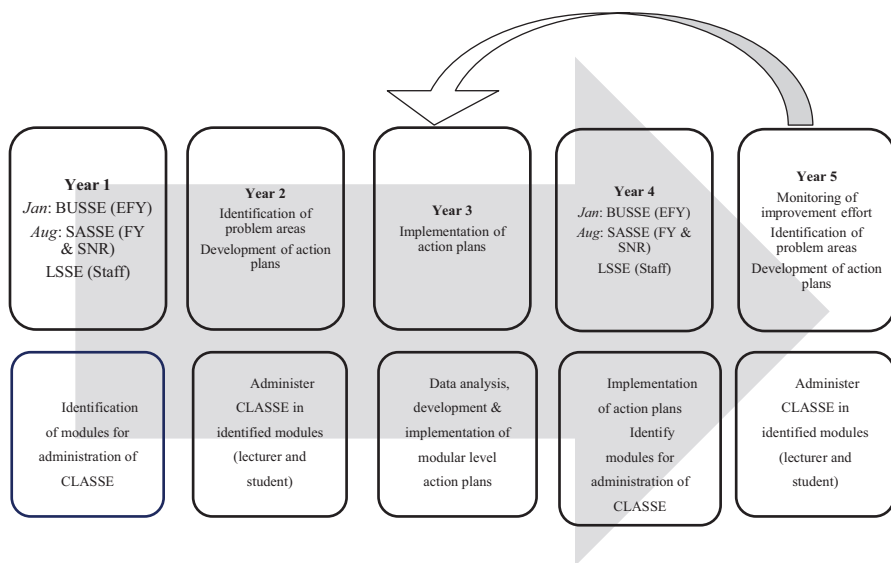
Fig. 6.1 UFS systematic approach to improving teaching and learning

Improving the Quality of Undergraduate Education

Cloete (2011) emphasises the importance of improving student success by showing how the National Development Plan highlights the importance of graduate output for the development of South Africa. A critical component of improving student success is to improve the quality of undergraduate teaching and learning. In July 2011, this point was underscored by support of the Department of Higher Education and Training (DHET), the Department of Science and Technology and Higher Education South African (HESA) for the principle that all universities in South Africa must offer quality undergraduate education.

This section provides an example of how UFS proposes to use student engagement data to improve the quality of teaching and learning. The CTL research team has conceptualised a systematic, longitudinal approach to investigating student engagement that will be implemented as one of the strategic research projects run by the centre. Figure 6.1 illustrates how the CTL proposes to use student engagement surveys within a 5-year cycle for the identification of problem areas, the design of action plans and the monitoring of improvement efforts.

The cyclical approach allows data to be gathered at both the institutional level as well as at the course/modular level. In order for the data to be used most comprehensively and effectively, it will be critical to employ a purposive sampling methodology to ensure that adequate numbers of students can be matched at different administration points of the institutional surveys, and that departments and faculties are sufficiently represented to allow for meaningful comparisons with the course/modular level surveys within the institution.

The following discussion elaborates on how the CTL research team uses the student engagement findings in a cross-sectional and longitudinal manner, as well as to monitor student engagement patterns within a cohort of students.

In January of Year 1, data are collected from entering first-year students via BUSSE, which asks the students to indicate their levels of engagement at high school and their expected levels of engagement during the first year of study.

The data gathered from the BUSSE in January will be used as baseline data for a cohort study to understand how the behaviour of this group of students changes over time in the educational context, and to what extent their expectations for their first year at university are realised. This type of data will serve as one source of information to profile students within the institution from the time of enrolment until graduation.

In addition, by providing customised reports to relevant stakeholders, data from the BUSSE will be used in a cross-sectional manner almost immediately within the context of support services (academic advising, orientation etc.), teaching and learning development as well as institutional research to assist support staff and academics to better understand modern-day student populations and to improve learning within the classroom.

During August of the first year, the institution will administer the SASSE to first-year and senior students, asking them about their participation in educationally effective activities during the year. At the same time, the institution will administer the LSSE to first- and senior-year lecturing staff to obtain their perspectives on the teaching and learning environment.

In the years that the institution collects BUSSE and SASSE data, the CLASSE will not be administered to avoid over-surveying students. However, during Year 1, institutional researchers will identify problematic modules/courses (e.g. low throughput rates, poor lecturer evaluations) and plan for the administration of the CLASSE (staff and student) in Year 2.

During Year 2, the data obtained from the three surveys (BUSSE, SASSE and LSSE) administered in Year 1 will be analysed from multiple perspectives to understand the undergraduate teaching and learning climate at UFS. By administering these surveys in Year 1, the institution obtains cross-sectional data on first- and senior-year students that will be used diagnostically to identify areas of concern in the undergraduate learning experience. Furthermore, these data will serve as the baseline data for longitudinal data analysis in later years to understand the impact of interventions on student engagement and for understanding how student populations change over time. Finally, scores on the SASSE will be matched with items on the BUSSE (for the purposes of cohort tracking) and on the LSSE (for a multi-perspective understanding of engagement).

Year 2 focuses strongly on communicating results with key stakeholders—including deans, teaching and learning managers and relevant support staff, in order to collaboratively design targeted action plans for implementation at the institutional and faculty/departmental levels. Additionally, as mentioned above, the institution will administer the CLASSE (for staff and students) in Year 2 in all 'critical' modules that have been identified.

The focus during Year 3 at the institutional level is on the implementation of the action plans developed after the first round of administrations, and the analysis of the data gathered at the course/modular level. The analysis of course/module level CLASSE data will be used to inform the development of course-specific reports that will be shared with the relevant teaching staff, as well as with faculty/departmental level stakeholders. The intention of sharing CLASSE results is to assist lecturing staff to find practical and relevant strategies that will support them to become excellent 'teachers'.

During Year 4, the BUSSE, SASSE and LSSE are again administered as in Year 1. The data that are obtained during this second administration will thus be interpreted from cross-sectional, cohort and longitudinal perspectives.

Cross-sectionally, the data will be analysed and used in a similar fashion to Year 1 (primarily for diagnostic purposes) to identify areas in need of improvement and possible areas of strength. However, one of the key advantages and purposes of the multiple administrations of the surveys is that, over time, a longitudinal understanding of student engagement can be obtained, and the impact of the intentional improvement efforts designed and implemented in Years 2 and 3 can be monitored. By comparing the relative experiences of students in Year 1 with the experiences of students in Year 4, institutions will begin to get a sense of whether the implementation of their action plans had an impact on teaching and learning practices within the institution, and allows for a more comprehensive understanding of the complexity of the educational process.

Finally, additional to the longitudinal understanding of student engagement, a comprehensive cohort analysis will be conducted by matching BUSSE (Year 1) with SASSE (Year 1) and SASSE (Year 3). This type of tracking at the individual student level allows the institution to understand how the individual student has changed or remained constant during the course of his/her studies at UFS.

At the modular/course level, the lecturing staff involved in the CLASSE survey will work with the Staff Development Focus Area within CTL to implement their identified strategies in the context of their classrooms. In that year, the CTL will work closely with DIRAP to once again identify a new set of modules in which the CLASSE will be administered during Year 5.

During Year 5, the institution will be in a position to reflect on the improvement (or lack of) efforts through a detailed examination of the cross-sectional, longitudinal and cohort data obtained during the cycle. This evidence can then be used to further inform the next phases of institutional planning and the development of revised action plans for implementation, as well as for critical reflection on whether the institution is true to its mission and strategic objectives. During this year the CLASSE (staff and student) will again be administered in selected modules.

Challenges Facing a Systematic, Longitudinal Approach

In order to most effectively use the student engagement surveys in the manner proposed above in the 5-year cycle, there are a number of challenges that must be contended with. These challenges include sampling strategies, limited implementation time frames and resource constraints (human and financial). Each of these is discussed briefly.

To be able to use the data successfully, it will be of critical importance to pay particular attention to sampling strategies used within the institution (for the importance of sampling see also McCormick 2009). The proposed use of the data assumes that student responses can be linked at the individual level between administrations accurately, and additional to this, that a sufficient number of students can be linked in order to disaggregate the data meaningfully. In overcoming these potential challenges, the value of a well-designed, consistently implemented sampling strategy cannot be underestimated. Two critical matters arise at this point—first, in order to link student responses at the individual level, it is necessary to request students to provide identifying information (e.g. a student number). Requesting student-identifying information may raise various issues (e.g. confidentiality and accuracy) that will have to be grappled with at the institutional level. The second critical matter related to sampling (assuming that student identifying information is obtained and accurate) is ensuring that a sufficient number of students can be linked between administrations in order to allow for meaningful disaggregation. Directly linked to this is ensuring that students from all potential sub-groups of interest (gender, race, first-generation) are adequately represented within the sample in order for the planned analysis to be conducted and for valid results to be obtained.

Although the proposed implementation cycle fits into the time frame used for institutional reviews by the Higher Education Quality Committee (HEQC), in the context of change within HEIs, it may be unrealistic to expect the impact of improvement efforts and change initiatives to have filtered down to the student level within the limited time frame—particularly given the reality that both the institutional data analysis, the development of action plans and the implementation of these must all occur within a 12- to 14-month period. However, consistent results from year to year can in fact be meaningful to institutions because they confirm problematic trends. Whilst one poor score can be blamed on a particular cohort, consistent trends over time provide evidence for the existence of an institutional culture (either positive or negative).

The third challenge relates to human and financial capacity constraints. Having good data is not enough—the data must be rigorously analysed and the results must be intentionally translated into action plans, which in turn must be communicated and implemented (McCormick 2009). However, whilst few would disagree that this is an important process, many would agree that a lack of institutional capacity is often a hindrance to a deeper analysis of assessment results and the implementation of improvement plans. A report by the World Bank on quality assurance systems in sub-Saharan Africa (Materu 2007) attests to this, and highlights that a lack of capacity within both the higher education system and institutions is a critical challenge in quality assurance processes within the region.

Conclusion

This chapter reflected on the important role that student engagement data can play in the South African higher education system. The use of student engagement data was contextualised by providing an overview of the challenges facing South African higher education based on the National Development Plan: Vision for 2030.

A description of the range of student engagement measures that have been adapted and contextualised for South Africa showed the range of data that can be collected to analyse the processes that influence student success. Some of the emerging trends of the 2-year national study of student engagement were discussed, followed by an explanation of the use of student engagement data for institutional planning and monitoring as well as capacity development at a systemic level. Finally, the use of a range of student engagement measures in a structured and longitudinal approach to improve the quality of undergraduate education was described.

The authors believe that the use of student engagement data can help universities to fulfil a very important function, namely, the education and training of high-level human resources, and the strengthening of equity, social justice and democracy. The authors argue that there is a tremendous potential to improve the South African higher education sector's understanding of teaching and learning practices and student behaviours if student surveys are administered on a national level. This would not only allow for cross-national benchmarking but, if administered in a cyclical manner, will also allow for a comprehensive understanding of how institutions change over time, and how teaching and learning practices work. What may be of particular value is to be able to make these comparisons between institutions of similar typology and/or mission (Kinzie 2011). Over time, this will allow differentiation among South African institutions in a more sophisticated manner, going beyond a mere focus on knowledge production.

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Chapter 7
Engaging Students in China

Heidi Ross, Yuhao Cen and Jinghuan Shi

Introduction

What is the value of a college education? What kinds of evidence and beliefs determine value? Who should have access to that value, and to whom should colleges and universities be accountable for delivering it—to individuals, 'the public'? As the chapters in this volume attest, such questions are global in their transnational relevance and reference, and have precipitated local and international debates on the complexity of assessing quality, accountability and productivity in higher education (Sullivan et al. 2012). As comparativists with deep experience in Chinese and the US universities and colleges, we marvel at how the US system, which has provided the primary inspiration and models for Chinese reform-era postsecondary educational policies, is under siege (Tinto 2012), with state and local support for public institutions plummeting, parents increasingly frustrated by concomitant rising tuitions and privileged pundits funding students not to go to college. The latter critique of the structures and organisation of knowledge and innovation is almost unthinkable in China, where ubiquitous 'educational desire' (Kipnis 2011) hinges on the cultural and remunerative prestige of formal education. Indeed, the signature challenges of Chinese higher education reflect distinct national concerns of regional disparity in access, lack of academic and institutional autonomy, and stubborn obstacles to equity, innovation and people-centred development erected by China's exam-oriented educational system (Yang 2010, 2013).

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Still, global discourses on quality improvement, quality reform and quality assessment have become watchwords in Chinese higher education reform. This is especially so following the mass expansion of postsecondary institutions and enrolment for well over a decade (undergraduate enrolment rose from 5.5 million in 2000 to over 22 million in 2010, and reached 26 million in 2012), the tandem emergence of world-class aspirations and fierce competition among China's elite institutions and concerns related to student and faculty recruitment, retention and graduate unemployment in the non-elite sector, where the majority of expansion has occurred. In this context, the chief motivation in 2007 for developing a student engagement survey for the Chinese context was to provide a springboard for reflection on how approaches to defining and assessing educational quality within Chinese higher education might be redirected, to redress from a lack of attention to students' university experiences. As described below, 'NSSE-China' has not only offered over time an important complementary discourse on educational quality, but also a lesson in localising and adapting internationally relevant surveys, a mechanism for providing institutions information to enhance teaching and learning, and a vehicle for building institutional research offices with the capacity to turn evaluation into local innovation.

Policy and Project Contexts: From NSSE-China to the Chinese College Student Survey (CCSS)

A key document, the *Outline of China's National Plan for Medium and Long-term Education Reform and Development 2010–2020* (hereafter referred to as the 'Blueprint') debuted in July 2010 after 3 years of planning, multiple revisions, and expert and public involvement. The Blueprint outlines goals for all stages and aspects of China's education system over the next decade. In particular, the Blueprint pointed out that:

> Higher education performs the important task of cultivating high-calibre professionals, developing science, technology and culture, and promoting the socialist modernization drive. Raising quality is at the heart of this task, and a basic requirement of the effort to build the nation into a power to be reckoned within the global higher education landscape (Ministry of Education 2010, p. 18).

The identification of raising quality with 'the heart of the task of higher education' was made prior to publication of the Blueprint. As early as 2002, a state-initiated and state-sponsored evaluation program, the National Undergraduate Teaching and Learning Evaluation (*Quanguo benke jiaoxue gongzuo shuiping pinggu, abbr. Pinggu*), was implemented nationally in a top-down manner (Ministry of Education, 2002, 2004). Bringing in fiscal commitment, the policy paper, *Opinions on Implementing the National Project of Undergraduate Educational Quality and Educational Reform* (*Gaodeng xuexiao benke jiaoxue zhiliang yu jiaoxue gaige gongcheng, abbr. Gongcheng*), was jointly ratified by the Ministry of Finance and the Ministry of Education (2007). *Pinggu* and *Gongcheng*, as well as institutional

efforts in response to the national policies, have generated a platform for nationwide discussions and debates about what quality undergraduate education is, what counts as evidence of quality, how to measure quality across institutions, how institutions should improve quality and who should be the gatekeepers of educational quality.

Educational researchers have been increasingly engaged in these discussions and debates on higher education quality. A search in the database of China Academic Journals for articles with titles containing 'higher education quality' yielded 21 items for the year 2000, jumping to 175 items in the year 2010. However, the majority of these articles focused on international experiences in quality assurance and their implications for Chinese higher education, review and discourse analysis of policy documents and theoretical concepts and frameworks on assuring higher education quality. With little training, resources and attempts to collect and analyse first-hand data within higher education institutions, empirical research on quality issues and evidence-based policy making on improving higher education quality has been largely missing in Chinese higher education research.

In response, Chinese policy makers and researchers have actively sought out North American experiences and models of higher education reform, as well as research instruments and methodologies, to address concerns about measuring and raising educational quality. The National Survey of Student Engagement (NSSE) was one such instrument that attracted Chinese scholars' attention. Administered by the Center for Postsecondary Research at Indiana University since 2000, NSSE has attracted more than 1,500 4-year institutions in the USA and in Canada to participate in the annual survey (NSSE 2012).

Interestingly, NSSE was first introduced to Chinese readers in translation in an English-learning magazine in 2003 (Wildavsky 2003). In 2007, NSSE's significance, procedure, benchmarks and impact were formally presented in a Tier 1 academic journal in China specialising in introducing international experiences (Luo and Chen 2007). However, student engagement remained one of many 'foreign' concepts and perspectives on higher education quality that Chinese scholars speculated about until the survey instrument and its methods were 'borrowed', adapted and implemented in China (Luo et al. 2009a; Ross and Cen 2012; Ross et al. 2008). Introduced and known as NSSE-China, the project was later expanded and developed into the Chinese College Student Survey (CCSS) in 2010. The NSSE China/CCSS project has since become the largest and most systematic college student survey in China.

Two particular aims characterise the development of CCSS. Firstly, it was designed with both macro and micro functions for depicting and diagnosing undergraduate education in China, where breathtaking and in some ways demographically destabilising economic reforms and the rapid expansion of higher education have brought changes in higher education. To capture the macro or national level perspective, stratified/cluster sampling has been used to identify institutions representing diversity in region, type and level of prestige, while at the micro or institutional level, random sampling within class levels (freshmen, sophomore, junior and senior students) has been applied to create samples representative of the undergraduate population. Secondly, CCSS has two separate but related survey instruments.

One includes a revision of NSSE-China for all sampled students, focusing on Chinese college student learning experiences and engagement. The other is only for senior undergraduates, with the goal of investigating their job-searching experiences and career expectations. This instrument was also designed to allow for follow-up studies of participating students after college graduation. CCSS's two survey instruments were developed primarily by an interdisciplinary team of researchers at Tsinghua University, including specialists in pedagogy, economics, sociology and psychology.

In 2009, 27 institutions voluntarily participated in the NSSE-China/CCSS project, and 24,252 valid questionnaires were collected. The number of participating institutions increased in each consecutive year of administration: 54,627 questionnaires from 47 institutions were collected in 2010; 77,795 from 57 institutions were collected in 2011; and 71,698 questionnaires from 59 colleges and universities were collected in 2012. Altogether, the NSSE-China/CCSS Project has involved 84 institutions from 27 of 34 China's province-level administrative units.. The data were jointly collected and analysed by the Tsinghua team and project institutions. The reports and papers written by the research teams provide both policy makers and academics diverse perspectives for exploring and understanding Chinese college students' learning and development. Unlike the US NSSE, Chinese institutions do not pay to participate in the survey. Consequently, distribution of the survey and reporting and analysis at the institutional level is constrained by funding obtained by the Tsinghua University team. Still, the CCSS Project, making research results affecting policies and practices on enhancing educational quality as a primary aim, has published over 40 reports and papers in Chinese. Using the Chinese characters '清华大学NSSE-China调查' (Tsinghua University NSSE-China survey) a Google search reveals 3,270 items related to the project.

With increasing numbers of participating higher education institutions, the NSSE-China/CCSS project has expanded its influence in China since its first full-scale survey administration in 2009. In earlier stages of the NSSE adaptation project and for first-time participating institutions, priority was placed on understanding the concept and the instrument of student engagement and using appropriate methods to assure quality local data collection. With a large amount of student survey data in hand, the researchers were both excited and puzzled by many questions: With what methods shall we analyse the data; in what ways shall we report the data; with whom shall we share the data? Basically, researchers were asking 'How shall we use the data?'

Again, Chinese researchers and scholars were introduced to American experiences in using student engagement data for institutional improvement and academic research purposes. At the project's biannual national workshops, the core research team from Tsinghua University has presented American cases to illustrate how NSSE data were used and the implications of such use for data users in China.

At a 2010 workshop, for example, a presentation titled *Using NSSE data: Stories from the United States*, cited cases from a NSSE 2009 report. The presentation made the point that in the USA, 'colleges and universities have found many instructive ways to use survey results: accountability, accreditation self-studies, alumni out-

reach, assessment and improvement, benchmarking, communication with internal and external stakeholders, faculty and staff development, general education reform, grant writing, institutional advancement, institutional research, retention and state system performance reviews (NSSE 2009). Chinese institutions can also use the data for 'internal and external communication, accreditation, diagnosis, evaluation and improvement, benchmarking, institutional administration, faculty development, undergraduate education reform, institution research, and etc.' (Lv 2011). Three cases were also used to illustrate how institutions in the USA integrated NSSE results with institutional and other survey data in order to improve sophomore experiences, to influence revision of freshmen seminars and to effectively communicate with internal and external stakeholders. In conclusion, four suggestions in using CCSS data were advanced at the workshop: (1) publish the CCSS results; (2) integrate the CCSS data with other data; (3) compare the data of a group of interest with a control group and (4) promote the use of the data through academic studies.

At a 2011 workshop, the topic of introducing American experiences was expanded to include academic research using NSSE data and academic debates surrounding the NSSE study in the USA (Guo 2012). In particular, recent critiques of and responses to the NSSE project were discussed, and the NSSE team's future plan to launch NSSE 2.0 in 2013 was introduced. Three implications of the 3-year-old CCSS project were also raised. First, for future development, participants established that much could be learned from exploring Chinese student characteristics in mass higher education, effective educational experiences for Chinese college students, developing a supplementary survey research program (e.g. an employment survey) and promoting collaborative research among institutions. Second, regarding using and reporting NSSE-China data, participants underscored the need to clarify research questions and subjects, promote student participation, establish plans for researching target populations, write and share reports, propose improvement plans and integrate student databases. Third, to spur academic research, participants proposed developing research questions from institutional contexts and using rigorous qualitative and quantitative methods. In addition to introducing the US experiences, workshop leaders invited participating institutions to showcase their research and use of CCSS data in keynote presentations. Certainly, the biannual workshops have provided a critical network for participating institutions to informally learn from each other.

Three Case Studies of NSSE-China/CCSS Impact

Three institutional portraits are provided below to illustrate the impact of the NSSE-China/CCSS initiative at the institutional level. The first two case studies, Chongqing University and Guizhou University, include details of their experiences with the overall project and phone or face-to-face semi-structured interviews with project managers (see Appendix A for a list of sample interview questions) about how they analysed, reported and shared CCSS data, what they gained from participating in

the project (from the perspective of their institution and personally) and what they considered challenges and future plans in using and interpreting their data. Following these two case summaries, the case of NSSE China/CCSS institutional leader, Tsinghua University, is presented. It includes the project team members' use of student engagement data as a participating institution, and their concerns as coordinators of the entire NSSE-China/CCSS project.

Case 1: Chongqing University

Established in 1929, Chongqing University (CQU) is a key national university located in Southwest China under the administration of the Ministry of Education. As a comprehensive university with 28 schools, it is a member of both China's Project 211 and Project 985, the two most prominent projects in China for higher education development. Project 211 was initiated in 1995 by the Ministry of Education and aimed at cultivating approximately 100 high-level universities in China in the 21st century. By the end of 2010, Project 211 had admitted 121 public institutions. Institutions in Project 985 include China's most prestigious universities. The Project was launched by the Ministry of Education soon after then-President Jiang Zemin's speech in May 1998, in which he called for the development of a number of world-class universities in China. The Project was named after the year (1998) and the month (May) of Jiang's speech. Project 985 includes 39 institutions, all of which are also Project 211 schools. The announced funding to support these Project 985 institutions in total was approximately 30 billion RMB (about US$ 6 billion). With more than 29,000 undergraduate students, CQU aims at becoming one of the nation's world-class universities.

CQU was among the first group of 27 institutions that participated in the NSSE-China/CCSS project since its first full-scale survey administration in 2009. The Institute of Higher Education Research at CQU is the unit that coordinates the project at the institutional level, and the project receives substantial support from the university administration. 'When other participating universities attended the first NSSE-China workshop in April 2007 with doubts and concerns, we brought with us a university grant', Jiang, a researcher at the Institute of Higher Education Research and the project manager at CQU, said with pride. 'The university was going through educational reform. Our leaders were looking for evidence to support decision-making as well as innovative things and ideas'.

The 2009 report based on the NSSE-China data at CQU was disseminated and discussed university-wide. The annual report on student experiences drafted by Jiang and his colleagues was highly valued by the Vice President of Academic Affairs and was then distributed to the deans of academic affairs in each college and department. The report further reached the entire university leadership, and its conclusions were frequently cited at the Joint Conference of the Party and the Administration, the highest-level conference of the leadership of higher education institutions throughout China. Through the NSSE-China data and the report, col-

lege experiences and students' voices on their experiences began to move from the margins to the centre of setting the visions and future prospects of the university.

A series of measures in undergraduate teaching and learning reform at CQU were initiated concurrently with and subsequent to the NSSE-China project in 2009. Even though it is difficult to claim a causal relationship between participation in the NSSE-China project and these measures, the essence of the reform is consistent with the spirit of the NSSE-China project of promoting student engagement and, in turn, the NSSE-China project has propelled CQU to advance reform in teaching and learning. Jiang provided one example to illustrate the 'catalyst' function of the NSSE-China project. CQU's Huxi campus, located in a college town in suburban Chongqing about 40 min by car from the downtown campus, was put into use as CQU's campus for undergraduate students in 2005. Like many universities relocating to suburban areas to accommodate expanding student populations, CQU was faced with the challenge of diminishing student–faculty interaction as professors live near the downtown campus and spend less time on suburban campus. To help undergraduate students, especially first-year students, make the transition from high school to college and to promote their interaction with faculty members, CQU launched first-year seminar courses and further promoted the implementation of the seminars through a university-level policy (CQU 2010). In what has become the Valuing Freshmen Project, senior faculty members are invited to deliver lectures, and junior faculty are invited to have discussions with first-year students. These programs for first-year students began about the same time the NSSE-China project came to CQU and were further promoted as the NSSE-China report was unveiled. The report compared the five NSSE benchmark scores of CQU with those of research universities (with high research activity) in the USA, and revealed that the largest discrepancy between the two was on student–faculty interaction for both early- and later-year students. The comparison with research-intensive institutions in the USA indicated the university's ambition of becoming a world-class university on the one hand, and on the other hand justified the policies aimed at enriching the educational experiences of first-year students. The NSSE-China data collected annually were to be used to evaluate the effectiveness of the policy in the future.

Challenges and concerns accompanied CQU's use and reporting of the NSSE-China data. The richness of the data on student experiences allowed researchers the possibility of conducting in-depth analyses on topical areas and at the 'micro' level, for example, comparing student engagement across academic disciplines, class levels and academic units. Guided by the publications and reports of the core research team at Tsinghua University, most of Jiang's analyses focused on the five benchmarks at the university level. Jiang and his team wanted to conduct analyses using other scales, at school and departmental levels, and on targeted student populations. In addition, they wanted to implement their explorations with appropriate analytical methods and techniques. At the same time, data do not speak for themselves, and report readers—the university leadership and administrators of teaching and learning—were more interested in researchers' interpretation of the data and concrete suggestions for promoting student engagement. The Institute of Higher Education Research at CQU, like its counterparts in many other universities, serves as a uni-

versity think tank providing policy recommendations. However, without first-hand experience working with undergraduate students in academic departments or the dean's office, Jiang was challenged as a researcher to connect the data interpretation with the conditions, activities and problems in undergraduate education.

In addition, NSSE-China data reflected the voices of college students, one party engaged in undergraduate teaching and learning, while faculty voices remained absent from the overall picture. The report based on the NSSE-China data had not been shared with faculty at CQU, and Jiang was unsure how college teachers would respond to students' voices on their learning experiences. At the national NSSE-China/CCSS workshop in January 2012, researchers from participating institutions raised similar concerns and suggested the need to introduce Indiana University's Faculty Survey of Student Engagement (FSSE), which would allow comparison and contrast between the two key voices in improving teaching and learning.

Despite their concerns about the 'missing pieces' in their data on improving learning and teaching, participation in the NSSE-China/CCSS project allowed institutional researchers to develop academic interests in college student research and to conduct empirical studies with the survey data. Graduate students in higher education at CQU have published journal articles and proposed to investigate student engagement in their masters' theses. Jiang, without an academic background in educational research, returned to graduate school after 10 years and enrolled as a first-year doctoral student in education in 2011. Jiang reflected that, 'The project also provides a platform for me to know and learn from researchers at Tsinghua and from other universities. Professor Shi Jinghuan, the Tsinghua University project leader, travelled to CQU in October and had a discussion with our Dean of Academic Affairs on student engagement. We highly appreciate the support and the spirit of teamwork from the core research team at Tsinghua University'.

Jiang, like many other researchers, sees the biannual national workshops at Tsinghua University as opportunities for networking and capacity building. At a national workshop in 2012, advanced statistical methods, such as propensity score matching, were introduced for evaluating causal effects, and excited participants continue to make requests for more training workshops elaborating such techniques.

'We will continue to be part of the NSSE-China project'. Jiang shared, when asked about CQU's plans for the future. As part of CQU's Institute of Higher Education, Jiang and his colleagues were able to provide evidence of student experiences to support decision-making at the university level, and they continue to explore innovative and sound approaches to data analysis and policy recommendation.

Case 2: Guizhou University

Guizhou University (GZU) is a multi-campus public university, located in Guiyang City, the capital of Guizhou Province in Southwest China. Founded in 1902, GZU is the only Project 211 university in the province and one of the largest universities in China's Southwest region. Undergraduate education is at the centre of GZU's

mission. In 2012, GZU had 44,588 undergraduate students and 24 colleges with 137 undergraduate programs, spanning philosophy, history, liberal arts, economics, law, science, engineering, agriculture and business administration.

GZU joined the NSSE-China/CCSS project in 2009, and its Quality Evaluation Center was in charge of local administration of the survey. In 2011, the university voluntarily participated in a pilot web-based survey. In the CCSS family, GZU has been one of the most active members. GZU's primary reason for participating in the project was that CCSS could provide quantitative evidence and comparable results of benchmarks on effective educational practices from the student perspective, which the GZU team not only believed would help the institution identify its strengths and weaknesses in teaching and learning, but also bring new perspectives to assist GZU's desire to define and enhance educational quality.

Instead of conducting pure academic research, GZU's Quality Evaluation Center used CCSS findings primarily for quality assurance and considered it as an effective supplement to its own system for institutional improvement. An internal quality assurance system, the '4+1 system', was created at GZU in the same year it participated in the NSSE-China/CCSS project. In the 4+1 system, the '4' stands for four evaluation projects on key processes of undergraduate teaching and learning: course instruction and assessment; senior thesis (or design); practicum and faculty teaching. The '1' refers to the annual evaluation of each college's overall competence and contribution to the university. The evaluation covers teaching quality, research quality, disciplinary development, international collaboration and public service. Evidence for teaching quality was primarily based on routine materials provided by faculty and staff in each college, such as exam papers, course syllabi and administrative data. The only evidence from students was their online evaluations of instruction at the end of each semester. However, the validity of the student evaluation instrument was under severe criticism within GZU, because many believed scores could be easily inflated if professors lowered the academic challenge of their courses and reduced the difficulty of their examinations. In comparison, the NSSE-China/CCSS data represented student voices on undergraduate education quality through investigation of what they had really experienced in their college life, a domain thought to be neglected in the university evaluation system. Therefore, institutional researchers from the Quality Evaluation Center incorporated part of the CCSS findings into their white paper reports on undergraduate education and expected that this new evidence would bring positive changes to the teaching and learning process.

Each year since GZU's participation in the NSSE China/CCSS project, a lengthy report based on the CCSS data has been drafted by institutional researchers associated with the Quality Evaluation Center. The reports have been distributed primarily within GZU for institutional improvement. Paper copies have been sent to the president, provosts, directors of administrative offices, deans of all colleges and key findings have been presented at regular meetings of university-level administrators. In some colleges, deans also distributed the reports to faculty members to maximise their impact. Reports were also shared with the Tsinghua NSSE-China/CCSS project team and the Guizhou Provincial Department of Education.

In the past 2 years, GZU's reports have been mainly based on comparisons between GZU's data and the national average or the results of different types of higher education institutions. Data analysis has been conducted at the benchmark level, as well as at the item level. Although the statistical techniques used in the analyses were not sophisticated, due primarily to the limited training of institutional researchers, the annual reports and the NSSE-China/CCSS data have proven to be very useful for educational quality enhancement at GZU for a number of reasons.

First, the survey data provided GZU with empirical evidence on the teaching and learning process and helped local researchers investigate the strengths and weaknesses of their undergraduate programs. Some of the results came as a surprise to the researchers. For example, the mean scores of student–faculty interaction items for GZU freshmen were lower than those at local 4-year colleges, while the mean scores on the two items, 'asked questions in class or contributed to class discussion' and 'participated in a study group' were higher than those of Project 985 universities. GZU had worried about the competitiveness of its undergraduate programs. When interviewed, Dr. Li, Associate Director of the Quality Evaluation Center, asserted that the evidence from NSSE-China/CCSS provided a more 'accurate' evaluation of the current situation of college student life and what students thought about their college experiences. Such data allowed administrators and faculty to rationally reflect on institutional improvement at GZU rather than be blindly optimistic or pessimistic.

Second, NSSE-China/CCSS data also had a strong impact on GZU's 4+1 quality assurance system. For instance, the 2009 Report on College Student Learning at GZU indicated that, compared with other Project 211 universities and local 4-year colleges, GZU had lower scores on student–faculty interaction items, such as whether students received prompt feedback from faculty on their academic performance. This result drew the attention of researchers at the Quality Evaluation Center. The next year they weighted the student–faculty interaction benchmark score and integrated it into GZU's evaluation of overall competence as an important indicator. They hoped that this adjustment would bring improvement to teaching practices. Last but not least, NSSE-China/CCSS findings triggered serious consideration among faculty and administrators about how to achieve effective educational practices, especially from the student's point of view. Dr. Li and his fellow institutional researchers from the Center said that they also benefited from the project by working with the Tsinghua University team and building new networks with other universities to continue and deepen the discussion of educational quality and institutional improvement.

At GZU, the Executive Vice President for Undergraduate Teaching and Learning, Xiaolun Feng, positively confirmed the value and importance of the NSSE China/CCSS project and the GZU's continued participation in the project. In the future, the Quality Evaluation Center plans to explore how to integrate the NSSE-China/CCSS survey with the 4+1 System to form a stable, long-term mechanism of quality assurance. In addition, GZU institutional researchers will conduct several qualitative studies to enrich their interpretation of quantitative evidence from CCSS. The Center has already received a social science grant from the Guizhou

Provincial Department of Education to support their research project titled, 'College Student Engagement in Guizhou Province', which aims at promoting the NSSE-China/CCSS project among universities within the province and facilitating in-depth investigation of the GZU case.

Case 3: Tsinghua University

Tsinghua University, which celebrated its centennial in 2011, is one of China's top research-intensive universities, with 19 colleges, 56 departments, over 15,000 undergraduate students and more than 16,000 postgraduate students (Tsinghua 2012). In the 1990s, Tsinghua University established a clear goal of building a world-class university, and its road map has focused on the priority of pursuing excellence in the university's overall development strategy. Although Tsinghua University has multiple functions in 'cultivating talents', conducting research and providing services, undergraduate education has always been a core mission of the university, and the university has the privilege of selecting China's highest achieving high school graduates through China's unified national entrance exam. In 2011, Tsinghua enrolment scores for undergraduates were the highest in 26 provinces in both the natural science/technology and social sciences/humanities tracks (Tsinghua University 2011).

During NSSE-China's pilot period prior to 2009, the university had already seen the value of the survey in diagnosing the problems of undergraduate education. Based on the document, *Strengthening Undergraduate Education, Cultivating the Top Talents*, issued by the University Committee in 2009, Tsinghua determined to 'pay more attention to the teaching/learning process and have the undergraduate survey regularly'. From the beginning, the project was designed as a joint effort among scholars, administrators, teaching and learning specialists and student-affairs staff in improving the overall quality of undergraduate education. The research team was composed of a cross-section of interdisciplinary personnel in order to translate the academic findings into policy making and practical actions.

The first university report using NSSE-China data came out in 2009, receiving thousands of requests for reprints and lively feedback on the Internet. The report coincided with the inauguration of Tsinghua's 23rd University Forum on Education with the topic, 'Mission and Strategy of Tsinghua University in Cultivating Talents in the New Century'. Since the early 1950s, Tsinghua has had an institutionalised arrangement for organising university-wide discussions on one or two urgent issues for the university's development. Not surprisingly, the reporting aroused campus-wide discussions. Some major findings from the survey, compared with student data from American research universities, such as lower levels of student–faculty interaction, more time devoted to course-related studies and decreased student engagement in upper-level classes, were identified as core issues for improvement. Relevant reform efforts were established, for example, creating a Freshmen Guidance System in which newly retired faculty members work as freshman advisors and meet with them on a regular basis. A Learning Support Center for students with

learning difficulties was implemented, and serious attention was given to reforms in classroom teaching and learning. Yuan Si, the Vice President of Tsinghua University responsible for teaching and learning affairs, values the survey highly. In his discussions with researchers from the Institute of Education, he said, 'A good university should evaluate its quality from different perspectives, and learning process indicators are significant for institutional quality maintenance. NSSE-China represents student voices which used to be underestimated'. The NSSE China/CCSS survey has become an annual program within the university, and as summarised by Hennock in the *Chronicle of Higher Education* (2010), 'the results will enable administrators to pinpoint problems and identify reforms that might improve teaching styles, course materials, and students' overall enjoyment of campus life'.

From NSSE-China to CCSS, Tsinghua has taken the lead in using student surveys as a tool to improve undergraduate education. The practice has been widely accepted, and in July 2011, the Department of Higher Education of the Ministry of Education issued a document requiring all Project 985 universities to publish an annual report on the quality of undergraduate teaching and learning. This requirement has now been expanded to all Project 211 universities. The annual survey reports written by researchers of the NSSE-China/CCSS Project team have been a valuable supplement to these official undergraduate education reports (Luo et al. 2009b; Shi and Wen 2012).

Of course, the challenges facing the Tsinghua team remain. The first major concern is to make the core concept of engagement more fitted to the Chinese context and create an instrument more reliable in measuring the learning behaviours of Chinese students. Generally speaking, 'student engagement' in China, as an idea emphasising students' input of time and energy towards learning, is not new, but as a set of behaviours to be measured (in relationship to institutional characteristics and resources), student engagement is fairly novel and requires further research. After all, the concept of 'student engagement' is culturally constructed and rooted in social understandings of what is perceived to be 'good' or 'bad' student behaviour. For example, Chinese students are well known for their investment of time and effort in their studies. But what 'student engagement' really means for students from different socio-economic backgrounds and from different types of institutions, and what factors underpin and influence their engagement choices, are still poorly understood. Parallel with the adoption of NSSE-China/CCSS in an increasing number of diverse institutions is the growing awareness of the need to revise the tool and make it more acceptable in and adaptive to China's changing educational contexts.

The second concern is to provide sufficient training and technical support for the staff and researchers who oversee and analyse the NSSE-China/CCSS project in participating institutions. The Tsinghua team, composed of professors and graduate students from different academic fields, organises training workshops twice annually for core representatives of participating institutions, providing training on survey methodology, data analysis and report writing. With increasing numbers of participants, the number and variety of demands accumulate. How to generate enough resources, financial, human and technical, to continue regular training and provide support to participating institutions remains a pressing challenge.

Concluding Thoughts

At the centennial ceremony of Tsinghua University in 2011, the then President of China, Hu Jintao, delivered a speech that again emphasised the importance and methods of improving the quality of higher education, the foremost approach focusing on talent cultivation. 'Raising quality is the lifeline of higher education', Hu proclaimed (Hu 2011). In response to Hu's speech, the Ministry of Education published a policy paper, *Opinions on Comprehensively Improving Higher Education Quality,* in March 2012. This policy paper, nicknamed '30 clauses' by the media and the general public, is a reconfirmation and elaboration of the higher education elements of the 2020 Blueprint.

The NSSE China/CCSS project was initiated and has since developed during a time when state and institutional policy makers have been directing their focus away from the expansion of higher education (although current national policy calls for 40 % of the college age cohort to matriculate to post-secondary education by 2015) to quality enhancement and seeking innovative ways to implement evidence-based improvement in teaching and learning. In its fifth year of administration, having accumulated student engagement data and institutional feedback on survey administration and data use, the NSSE China/CCSS project team continues to revise its survey instruments that are geared towards collecting accurate and reliable data that can translate into institutional improvement. Through support by national policy makers and the diligent work of Tsinghua University-based and institutional research teams in learning from and publishing project results applied to teaching and learning practice, the NSSE China/CCSS project has achieved its initial aim of creating a lively forum within China for broad and interdisciplinary discussions on the value and quality of higher education, and how improving the learning and teaching experiences of students and faculty figure centrally in both. It is hoped that China's experiences may also benefit educators across the globe who are concerned with educational quality as it affects and is shaped by the primary 'users' of formal education, i.e. students and teachers.

Appendix A: Sample Interview Questions

1. Why did you participate in the project? Does the institution have plans to continue to be part of the project in the future?
2. What were/are the challenges in the process of participating in the project? (such as collecting and interpreting data, etc.)
3. As an educational researcher, what is your personal gain from participating in the study?
4. What do you think the institution has gained from participating in the project?
5. Do you think the data collected on students' experiences reflect the quality of your institution?

6. Did any of the data surprise you?
7. Whom do you share the data with?
8. In what form do you share the data—news brief, newspaper, journal article?
9. How does the data affect administrator behaviour—any impact on decision making within the university?
10. Have you engaged in any follow-up activities either through student interviews about their responses or linking this data with other student outcome or departmental information?

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Chapter 8
The Irish Survey of Student Engagement

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Introduction: An Overview of the Higher Education System in Ireland

The higher education sector in Ireland consists of a binary system of seven universities and fourteen institutes of technology. In addition, there are seven colleges of education and a number of small specialised institutions. Approximately 60 % of students in higher education attend the university sector with 40 % attending institutes of technology and other sectors. Higher education institutions in Ireland are relatively small by international standards, ranging from approximately 5,000 students in the smallest to over 20,000 students in the largest. Despite the relative size of institutions, there has been substantial growth in the number of students entering

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the higher education system in Ireland over the last 50 years. This is exemplified by the fact that in 1965 there were approximately 19,000 full-time students in the sector, and by 2011/2012 this had risen to 162,782 (Higher Education Authority (HEA) 2013). Approximately 65 % of students who complete secondary education now go onto higher education. The vast majority of students are in the age group 18–22. Mature students (undergraduates older than 23 at the commencement of their program) account for approximately 14 % of entrants to the sector. Women account for 53.5 % of all undergraduates and 57.0 % of postgraduates graduating from the higher education sector (HEA 2013). Participation rates by students from non-European Union countries are relatively low, comprising approximately 5 % of all entrants.

Approximately 85 % of funding for the higher education sector in Ireland comes from public sources. Ireland spends 1 % of its GDP on higher education. A statutory body, the Higher Education Authority (HEA), is responsible for funding the sector on behalf of the state. In addition, the HEA also coordinates state investment in higher education. Tuition fees for students were abolished in 1996; however, students have to pay a registration fee and this charge has increased year-on-year. The aim of the abolition of tuition fees was to increase participation rates from lower socio-economic groups. However, the success of the abolition of tuition fees is debatable, with the greatest proportion of entrants to the higher education sector coming from higher socio-economic groups despite concerted attempts at both national and institutional levels to increase participation rates among target socio-economic groups.

Major structural reforms are underway as part of the implementation of the *National Strategy for Higher Education to 2030: Report of the Strategy Group* (Department of Education and Skills 2011), which will see institutional consolidation in certain disciplinary areas to ensure Irish higher education can continue to deliver high quality outcomes for individual learners and for broader economic and societal purposes.

Drivers for Change: Institutional, National and International

There has been growth, albeit uncoordinated, in measuring and evaluating the quality of student experience of higher education in Ireland over the last 20 years. The growth in measuring student outcomes was partially driven by a number of declarations, governmental acts and reports that have been published at the national and European level on the role and function of higher education systems. Although documents and reports deal with a number of diverse issues—such as transferability of degrees, governance of universities, accountability and increasing competitiveness—a fundamental theme in the reports is the centrality and importance of ensuring the standards and quality of educational programs. The assurance of quality and standards has been given increasing prominence with recommendations that students become involved in the evaluation of the quality of their education program and their experience of higher education (European University Association (EUA) 2005a, b).

Although there has been remarkable growth in the number of reports recommending that students be given a voice in the measurement of the quality of their experience of higher education in Ireland, this was not always the case. Throughout the 1970s and 1980s, there was little discussion of measuring quality of the student experience at the policy level until the publication of a Green Paper entitled *Education for a Changing World* (Acts of the Oireachtas 1992). This Green Paper was the first to identify the need to question the support students received during the course of study, the quality of teaching, the level of student attrition, the quality of research and the processes put in place to evaluate the quality of students' educational experiences. The theme of quality assurance in general and evaluation in particular was further advanced in the government's White Paper, *Charting our Education Future* (Acts of the Oireachtas 1995). This paper identified a specific framework for the evaluation of academic departments including internal and external evaluations. Furthermore, the importance of evaluation was highlighted in the report from the *Steering Committee on the Future Development of Higher Education* (HEA 1995). The Steering Committee's main concern was that the continued expansion of the higher education sector would adversely affect the standards and quality of higher education in Ireland. To this end it was recommended that there would be a system of self-evaluation and quality audit put in place.

The 1990s also saw the publication of *The Universities Act* (Acts of the Oireachtas 1997) and *The Qualifications (Education and Training Act)* (Acts of the Oireachtas 1999) both of which identified that measurement should be undertaken on the quality of teaching and research and that students should be involved in the evaluation of their educational experience. *The Universities Act* of 1997 was the first piece of legislation in Ireland to 'specifically set out *inter alia* the responsibilities of the institutions for academic quality assurance' (Duff et al. 2000, p. 59). The Act highlighted that the university sector should ensure that the highest standards in teaching and research are promoted and maintained. There was also recognition in the Act that students should be involved in the process of evaluating the quality of their experience of higher education: 'the procedures shall include…assessment by those, including students, availing of the teaching, research and other services provided by the university' (Acts of the Oireachtas 1997 VII, 35, 2b). This recommendation was further reiterated in *The Qualifications (Education and Training) Act* of 1999 (Acts of the Oireachtas 1999).

Although both the 1997 and 1999 Acts recommended that students be given a voice in assessing the quality of their educational experience, no formal system was put in place. This was evident in a report by the European University Association (EUA), a body with a long history of international quality assurance reviews, commissioned by the HEA, to undertake an assessment of the higher education quality assurance systems in Ireland. This first formal review of quality assurance procedures and their effectiveness in the seven Irish universities was completed in February 2005 (EUA 2005a, b). Although the EUA review identified that quality assurance procedures were generally comparable with European universities, it was reported that the role of students in the quality assurance process was limited.

At the European level, a number of reports and communiqués have acted as drivers for assessing quality in the higher education sector in Ireland. Although none of these reports specifically refer to student engagement, they do refer to student involvement in the quality assurance process.

European Union (EU) declarations and communiqués, most notably in Bologna in 1999, Prague in 2001 and Berlin in 2003, have placed emphasis on evaluating the quality of outcomes achieved as a result of an educational program. Although the influential *Bologna Declaration* in 1999 espoused five central tenets as a way forward for the integration and development of the European higher education system, it was criticised due to the scientific and competitive hegemony of the report. The prominence given to science and competiveness in the Bologna declaration was addressed to some extent in Prague by including the social dimension of higher education and the need to stress 'the importance of students as partners in European higher education' (Wächter 2004, p. 266). In the *Berlin Declaration* of 2003 quality assurance was also given prominence to counterbalance the emphasis on competitiveness outlined so strongly in the *Bologna Declaration* (Wächter 2004). The *Berlin Declaration* (2003), like previous declarations, stressed the need to develop mutually shared criteria and methodologies for quality assurance. Central to this process was a recommendation that national quality assurance systems include 'evaluation of programs or institutions, including internal assessment, external review, *participation* of students and publication of results' (p. 3; *emphasis added*). No specific information was provided on how these evaluation processes should be structured at the national or European level. However, the prominence given to quality assurance matched, or in some cases surpassed, that given to compatibility and comparability of degrees outlined in the *Bologna Declaration*.

As well as national and European reports and recommendations, the growth in the proportion of school-leavers attending higher education in Ireland has also been a driver in developing measures of the quality of the student experience. In particular, there was concern about the progression rates of students within the Irish higher education system due to rapid growth of the sector and the diversity of entrants. In particular, there was an on-going debate that the massification of the higher education sector may be problematic in ensuring the quality of the student experience.

Development of a Measure of Student Engagement in Ireland

Until the advent of the current project, no national or systematic approach to measuring the quality of student experience of higher education in Ireland was in place. However, student surveys were undertaken at individual institutes of technology and universities. These were based on a number of models including the Course Experience Questionnaire (Ramsden 1991), National Student Survey in the United Kingdom, National Survey of Student Engagement (NSSE) (Kuh 2001),

Australasian Survey of Student Engagement (AUSSE) (Coates 2010) and locally developed surveys.

The *National Strategy for Higher Education to 2030* (Department of Education and Skills 2011) outlined the planned strategic development of the higher education sector in Ireland over the coming decades. One specific recommendation in the report stated that 'higher education institutions should put in place systems to capture feedback from students, and use this feedback to inform institutional and program management, as well as national policy' (Department of Education and Skills 2011, p. 17). In order to implement the recommendation of the *National Strategy,* a program of research was undertaken to develop and test the Irish Survey of Student Engagement (ISSE). In a unique national project, representatives from a number of key groups in higher education in Ireland were involved in the development of the survey. These included the university and institute of technology sectors (represented through the Irish Universities Association (www.iua.ie) and Institutes of Technology Ireland (www.ioti.ie) as well as staff from individual institutions in both sectors), the Higher Education Authority (www.hea.ie), Union of Students in Ireland (www.usi.ie) and Quality and Qualifications Ireland (www.qqi.ie).

Recognising the importance and centrality of the student voice in ascertaining the quality and outcomes of their student experience, the *National Strategy* further recommended that:

> Every higher education institution should put in place a comprehensive anonymous student feedback system, coupled with structures to ensure that action is taken promptly in response to student concerns (Department of Education and Skills 2011, p. 17).

This recommendation was based on the acknowledgement that, despite an increase in involving students in the evaluative process, there was further room for improvement:

> While substantial progress has been achieved in the intervening years, students still lack confidence in the effectiveness of current mechanisms and there remains considerable room for improvement in developing student feedback mechanisms and in closing feedback loops (Department of Education and Skills 2011, p. 53).

It was recognised in the *National Strategy* that students have a major contribution to make in influencing the design of curricula, and in reviewing and providing feedback on their experience of college. It was also identified that good student feedback on satisfaction and engagement will contribute to students experiencing an education that is relevant and responsive to their personal development and growth as fully engaged citizens within society.

In spring 2012, the *National Academy for Integration of Research, Teaching and Learning* (NAIRTL), which advises the higher education sector on policies and practices aimed at enhancing the student learning experience, completed a project to develop a framework for a national student survey[1]. This phase of the project recommended that the new survey measure two constructs: student engagement and student satisfaction with their experience of higher education.

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[1] See www.nairtl.ie/studentsurvey.

Building on the NAIRTL work, a follow-up national project was put in place. This resulted in the development of a national pilot study, which was rolled out in March 2013. The remit of the national project group was to develop and implement a final survey template, methodology and process for undertaking a more comprehensive national student survey of students in Ireland in 2014.

The objectives of developing a national student survey for Ireland were to

- Increase transparency in relation to the student experience in higher education institutions;
- Enable direct student input on levels of engagement and satisfaction with their higher education institution;
- Identify good practice that enhances the student experience;
- Assist institutions to identify issues and challenges affecting the student experience;
- Serve as a guide for continual enhancement of institutions' teaching and learning and student engagement;
- Document the experiences of the student population, thus enabling year on year comparisons of key performance indicators;
- Provide insight into student opinion on important issues of higher education policy and practice; and
- Facilitate benchmarking with higher education institutions and systems internationally.

The project was specifically required to: (1) develop and implement a national student survey involving all universities, institutes of technology and colleges of education by March 2013, and (2) to use the 2013 experience to develop and implement a final survey template, methodology and process for undertaking a more comprehensive national student survey in 2014. The pilot phase resulted in the development of an agreed survey instrument and the distribution of the instrument to identified student cohorts in each participating institution. At the time of writing, the pilot phase was moving into an analysis of responses received and experience gained during the pilot, the publication of a report on findings of the 2013 survey and recommendations for implementation of a full national survey in 2014.

Based on the pretesting of the ISSE, a decision was made to survey undergraduate (first and final years) and coursework postgraduate students in each public higher education institution in Ireland. After completion of the pilot in 2013, it is intended to extend participation to the same student cohorts in all institutions offering programs leading to higher education qualifications included in the National Framework of Qualifications (www.nfq.ie), i.e. both public and private higher education institutions in Ireland.

Governance, Management and Stakeholders

The governance and management structures for the development of ISSE were designed to ensure wide representation of partner higher education institutions.

A Project Plenary Advisory Group was put in place consisting of representatives from universities, institutes of technology and the project co-sponsors (Higher Education Authority, Institutes of Technology Ireland, Irish Universities Association, Union of Students in Ireland). This Plenary Group was responsible for the overall management of the project, and its objectives included:

- To guide the design and structure of a national student survey that:
  - Builds on best practice internationally and
  - Utilises appropriate research methodologies and survey technologies;
- To establish and embed a survey framework that will facilitate institutions' implementation of the student survey by informing and amending local policies and quality assurance procedures where appropriate;
- To ensure key stakeholders within higher education, including institutional leaders and senior management, are informed of progress and outputs of the project;
- To approve an agreed communication strategy to increase awareness of the project and to encourage student participation; and
- To approve the structure and layout of the final report from the survey.

A number of working groups were set up to address survey design, communications, reporting and technical issues. A full-time project manager was appointed to lead developments and to ensure coherence and consistency between the various elements of the project.

Various stakeholders interacted with the national student survey at particular stages of the project. It is also intended that as the project is further developed and rolled out, comprehensive stakeholder participation will be put in place. Current and future stakeholders include:

- Students in higher education institutions;
- Management and staff of higher education institutions;
- Government departments and national agencies including the Department of Education and Skills, the Higher Education Authority and Quality and Qualifications Ireland;
- Representative organisations of institutions and students in the higher education sector including Irish Universities Association, Institutes of Technology Ireland and the Union of Students in Ireland; and
- Prospective students and their families.

Reporting of the Irish Survey of Student Engagement

In addition to the development of a national report outlining student engagement in the university and institute of technology sectors in Ireland, institutions will receive a full set of their own data for internal use. A dedicated website has been developed to inform students, academics and institutions of the purpose of the survey and implications of the results[2]. In addition, a number of guidelines are being developed

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[2] See www.studentsurvey.ie.

as part of the pre-testing of the ISSE to demonstrate to students, academics and institutions how the data can be used. These processes are based on the experiences of reporting data from the NSSE and AUSSE.

It will also be emphasised to all stakeholders that the results will be used to make improvements to the student experience. It is proposed that the report on the pilot project will aggregate data at national, institute of technology, university and college of education levels. In addition, results from the ISSE will be compared to the United States, Australia and New Zealand outcomes from student engagement surveys in each of these countries.

Improvement and Monitoring: Enhancing the Student Experience

The development and introduction of the ISSE provide a number of opportunities for the higher education sector in Ireland. The national student survey will provide, for the first time, evidence on student engagement and student satisfaction in both the institute of technology and university sectors. It is proposed that the ISSE will be used in a variety of ways including enhancing the student experience of higher education through developing an understanding of student development, engagement and transition. In addition, it is proposed that the ISSE will be used to develop an understanding of how students from diverse backgrounds as well as postgraduate students are engaging with higher education—cohorts on which little is known in the Irish higher education sector. The data collected will also inform research into the student experience of higher education in Ireland. Ultimately, the ISSE provides students with a voice in measuring the quality of their experience in higher education. The use of the ISSE in improving the quality of the higher education system in Ireland is outlined in detail in the following paragraphs.

Using ISSE to Understand Student Transition, Development and Engagement

With 65 % of all school leavers now entering the higher education sector in Ireland and a substantial growth in the numbers of part-time, postgraduate, overseas and non-traditional aged students attending institutes of technology and universities, issues related to the quality of the student experience are coming to the fore. The growing quality agenda coupled with the massification of the higher education system is resulting in academic and student support staff dealing with a number of concerns and issues.

For example, in a number of sectors and disciplines, there is concern regarding student attrition. The average rate of attrition for full-time undergraduate students in all higher education sectors in Ireland is 12 %. Individual rates of attrition are

4 % in colleges of education, 9 % in the university sector and 22 % in the institute of technology sector (HEA 2010). A number of initiatives, especially for first year students, are in place to facilitate the retention of students within the higher education sector, with an increased emphasis on programs that encourage student engagement with college life. These include programs that facilitate the transition from second level to third level and student engagement resources that emphasise teamwork, critical thinking, writing skills and time management. These initiatives, it is argued, are warranted, as there is evidence that levels of attrition from the higher education sector are higher during the first year of studies than in later years. There is also the perception that a number of students are ill-prepared or unable to cope with the demands of studying at tertiary level. The general conclusion is that attrition and poor performance are related to a lack of engagement, especially during the early stages of college life (Gibney et al. 2011). Although a variety of initiatives is in place to facilitate students' transition from secondary education and to engage with higher education, the impact or merit of these programs is unknown. Data on student engagement can address this shortfall; especially data on the first-year experience. As Coates (2008 p. 43) states:

> Engagement data provides rich information on key aspects of students' interactions with their institutions. Analysing engagement data in light of information about attrition and retention may well expose specific patterns of interaction that are distinctive to students who choose to discontinue their courses.

The First Year Experience

There is, in particular, emphasis in Irish higher education on the first-year student experience. The *National Strategy for Higher Education to 2030* (Department of Education and Skills, 2011) states that 'higher education institutions should prepare first-year students better for their learning experience, so that they can engage with it more successfully' (p. 18). To address this recommendation there has been considerable growth in the development of centres for teaching and learning, the appointment of academics to senior positions within the institutes of technology and university sectors with a teaching and learning remit and the development of modules to encourage students to engage with academic study and the life of the campus[3]. In addition, institutions within the higher education sector are increasingly offering postgraduate programs that facilitate academic staff to achieve formalised qualifications in teaching and learning in higher education.

Recent reports in Ireland have also identified that the rapid growth of the sector may increase the number of students who are unprepared for the rigours of higher education (HEA 2010; McGuinness et al. 2012). The expansion of the system has implications for both course completion and the level of student achievement:

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[3] See, for example, the *First 7 Weeks* program at the University of Limerick: www3.ul.ie/ctl/first-seven-weeks

> There is little doubt that large-scale and rapid expansion in the HE [higher education] sector has had important implications for extending HE to wider sections of society. However, it is important to assess the extent to which such widening access has implications for students' capacity to benefit from, and succeed within HE (McGuinness et al. 2012, p. 42).

The trend identified in two recent reports on the higher education sector in Ireland is that the rapid expansion of the sector has led to the risk of students, especially in their first year, being left unsupported, resulting in a lack of engagement with their studies leading to increased risk of attrition (HEA 2010; McGuinness et al. 2012). However, it is acknowledged that the profile of students who do not engage with higher education is unknown. There is also a need to know the impact that the rapid expansion of the higher education sector in Ireland has not only on student retention but also on student engagement and achievement (HEA 2010; McGuinness et al. 2012).

Transition from Secondary Education to Higher Education

Recent research in Ireland has also shown that the 'high stakes' examination system at upper secondary level has developed in students a narrow education focus directed towards exam preparation and exam success, and a move away from being actively involved and engaged in the teaching and learning process (Smyth and Banks 2012 p. 284). The consequence is that on entering the tertiary education sector, students find it difficult to adapt to, and cope with, the demands of higher education, especially in their first year. Problems with transition from secondary to tertiary education are not unique to Ireland and are evident in other countries where grade inflation at secondary education has led to problems with student achievement and integration into higher education systems (Côté and Allahar 2007). A recent policy document on higher education in Ireland has highlighted these concerns, especially in the disciplines of science, technology, engineering and mathematics (Department of Education and Skills 2011 p. 55).

In light of this evidence, the importance of facilitating students' transition from secondary education to higher education is gaining credence. A document published by Institutes of Technology Ireland (IoTI 2013) highlights a number of initiatives in place to facilitate the transition from secondary school to the higher education sector. This reflects a growing awareness of the need to put in place such innovations as well as identifying the extent to which such programs are successful in helping students engage with higher education. It is acknowledged within the higher education sector that there is a need to formalise the approach taken to assist students in the transition process and enhance the first-year experience (IoTI 2013).

Using the ISSE to Understand Student Retention and Student Transition

Student engagement, student retention and student transition are central themes in debates on higher education in Ireland. However, data on these issues are, at best, limited. The implementation of the ISSE will provide data on these constructs to allow academics and researchers develop a better understanding of the extent to which various cohorts of students are interacting with their institutions. As Coates (2008) highlights, these data can inform strategies that can be used to reduce attrition as well as identify the extent to which students are successful in transitioning from secondary to higher education. Furthermore, a student engagement survey such as the ISSE can provide

> evidence about what students are actually doing, highlights the most critical aspects of learning and development, provides a 'learner-centred, whole-of-institution' perspective, and gives an index of students' involvement in study.

The ISSE comes at a time when the importance of a quality teaching and learning experience is being internalised into the higher education system in Ireland. At both national and institutional levels, formal supports are in place to facilitate staff to use evidence-based innovations in their teaching and assessment. The ISSE will be used to enhance the interventions and innovations developed by institutes of technology and universities as well as inform policy and strategy developed by national organisations.

Understanding Student Needs and Diversity

The ISSE will also be used to develop an understanding of the extent to which students from diverse backgrounds engage with college life. Traditionally, students attending higher education in Ireland have been homogenous in terms of age and cultural backgrounds. Over the last decade there has been a shift in the student profile with an increase in the number of overseas students as well as a rise in mature-aged students. The change in the demographic profile of Ireland has also resulted in students from a variety of cultural and ethnic backgrounds attending colleges, institutes of technology and universities. There is evidence, however, that particular groups, especially students from minority groups, have negative experiences in engaging with higher education (Forsyth and Furlong 2003). Results from the ISSE can be used to identify the experience of students from a variety of backgrounds and the extent to which they engage with higher education. In particular items on the ISSE such as 'had conversations with students of a different ethnicity/nationality than your own' will develop an understanding of how various groups of students are experiencing and integrating into an increasingly diverse higher education sector.

Enhancing Postgraduate Students' Experience

The number of students completing higher education at postgraduate level in Ireland has grown dramatically over the last decade; this is especially the case in the number completing coursework-based master's degrees. The increasing dominance of these degrees reflects the reality of developments in professional life including the growth of continuing professional development and lifelong learning, the impact of information technology, the growth and specialisation of knowledge, and the diversity and flexibility required for the world of work. However, despite the growth in this level of higher education, there has been a lack of research on outcomes and quality of graduate level education, especially taught or coursework-based postgraduate programs. These programs remain the most under-researched and least understood of all degree levels (Reid et al. 2003; Katz 2005; Drennan and Hyde 2008). The introduction of the ISSE will address this gap. The changing nature of the work environment challenges educators to determine whether postgraduate education is meeting the needs of this cohort of students and to develop an understanding of the extent to which they engage with their life at college.

International Benchmarking

One of the reasons for basing the ISSE on both the NSSE and the AUSSE is that it will allow for international comparisons (the items and scales in the ISSE are comparable to both the NSSE and AUSSE). In particular, the Australian and New Zealand higher education sectors have many similarities to the system in Ireland. This will provide comparative data on which to report benchmarks including: academic challenge, active learning, student-staff interactions, enriching educational experiences and supportive learning environment.

In addition, basing the ISSE on the NSSE and AUSSE provides the opportunity to build networks with higher education systems in the United States, Canada, Australia, New Zealand, South Africa, China and other countries with national student surveys based on the NSSE. As Coates (2008) highlights, the international focus of the debate on student engagement will enable the Irish higher education system to engage in debates and conversations with the higher education systems in a number of countries on methods, analysis, effective interventions and outcomes.

Inform Research on the Irish Higher Education System

The data from the ISSE will be of great interest to researchers working in the field of higher education. There has been a long history of research on student engagement in the United States based on the results of the NSSE and its precursor, the College Student Experiences Questionnaire. In addition, research is beginning to emerge in the Australian and New Zealand systems based on the outcomes of the AUSSE.

There is an emerging scholarship in higher education in Ireland, most notably the seminal work on equity in accessing higher education (Clancy 1996, 1997, 2003) and policy in higher education (Hazelkorn 2008). However, with some exceptions, there has been a paucity of research into the student experience of higher education in Ireland. The ISSE will facilitate the further development of research into higher education in Ireland.

Enhancement of Collaboration Among Stakeholders

The project to develop the ISSE was unique in that its development involved the collaboration of key stakeholders from the higher education sectors in Ireland, including representatives from institutes of technology, universities, student representative bodies and quality assurance agencies. This collaborative approach facilitated the successful development of the survey and provides a platform from which to undertake further initiatives and research on the student experience within all sectors of higher education in Ireland.

Collaboration amongst institutions and sectors will also be enhanced through the standardisation afforded by the ISSE. To date, universities and institutes of technology in Ireland have been using a variety of measures of student outcomes. However, very little has been published on the methods and approaches put in place by institutions to measure the student experience, student outcomes or student engagement. The development of the ISSE, for the first time, provides the higher education sectors in Ireland with a psychometrically sound measure of a number of student outcomes. With the instrument, based on the NSSE and AUSSE, universities and institutes of technology can 'confidently evaluate the extent to which their students engage in different activities and the extent to which new policy affected student engagement' (Carle et al. 2009, p. 776).

Implementing and Responding to Policy on Quality

It is proposed that the ISSE will be used to identify areas for improvement in the Irish higher education system. However, there are limitations to the extent to which a measure of student engagement can capture all elements of the student experience (Hagel et al. 2012). Nonetheless, building on the work undertaken on the NSSE and AUSSE, the results from the ISSE can be used to enhance the quality of higher education in Ireland.

Policy documents recently published on the higher education system in Ireland have, along with identifying the importance of evaluating the student experience of teaching and research, highlighted the benefits of facilitating students to engage in the academic and social life of the college. This assertion is based on the substantial body of evidence that demonstrates that 'individual student engagement in educationally purposive activities leads to…favourable educational outcomes'

(Trowler and Trowler 2010, p. 14). The increasing recognition of the importance of student engagement is to ensure that students benefit personally, professionally and academically from their time in higher education (HEA 2013).

The ISSE, responding to a number of policy documents on quality at the European level that have emerged as a consequence of the Bologna process, can be used to identify the value of the student experience and identify targeted interventions that can be implemented to improve the quality of higher education experienced by students. The proposed longitudinal nature of data collection (it is proposed that the ISSE will be administered each academic year in Ireland) will also allow for trends in student outcomes to be measured and the quality of the student experience to be ascertained over time. As Coates (2008) states, the use of a student engagement measure is a 'new approach to measuring higher education quality'—the student engagement measure puts in place an approach to ascertaining a component of quality in the Irish higher education system that was heretofore missing. In addition, recent European communiqués and reports that have emerged from the Bologna process including London Communique (2007), Leuven/Louvain-la-Neuve (2009) and European Association for Quality in Higher Education (2009) have continued the call for student involvement in the quality assurance process. In the report *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (European Association for Quality in Higher Education 2009), it was recommended that higher education institutions should monitor the progress, satisfaction levels and outcomes of students. In addition, the report highlights the importance of support services in ensuring students experience a high quality learning environment. A EUA report on *Tracking Learners' and Graduates' Progression Paths* (2012) also explores how effective student feedback and tracking mechanisms can contribute to enhanced institutional decision-making, including the development of student services and improved quality assurance processes. The ISSE goes some way to fulfilling these national and European recommendations, especially on the growing centrality surrounding the debate on the effectiveness of student engagement.

Provide Students with a Voice

The development and implementation of the ISSE will provide students with a voice in ascertaining the quality of their educational experience. The previous lack of input from students in the evaluative process was emphasised by the European Universities Association (2005a) review as being a particular weakness of the quality assurance procedures in the higher education sector in Ireland:

> This lack of student involvement was surprising to the EUA teams, all the more so since very few systematic student feedback mechanisms appeared to be in place to ensure that departments had regular and clear information from students regarding the quality of teaching and of the learning environment. The EUA teams were unanimously surprised to find that students have almost no formal input into monitoring or evaluating the quality of teaching and learning in Irish universities (EUA 2005a, p. 22).

The EUA identified that where student feedback was obtained, it was found to be on an *ad hoc* basis, with little or no evidence available on how the findings from such feedback were used, assimilated or acted upon. The EUA (2005a), recognising the importance of student involvement in evaluative processes, recommended that 'as a basic minimum, the Irish universities need to ensure coherent and regular student feedback on all courses and modules, and for this feedback to be an explicit input to the QA process' (p. 22).

The advent of the ISSE addresses the concerns of academics and policy makers that students be given a voice in the evaluative process. In addition, the importance of student involvement was recognised in involving the student body in the development and testing of the instrument from the very start of the process. This consisted of student representation through the Union of Students in Ireland on the ISSE planning committees as well as undertaking a series of focus groups in the institute of technology and university sectors to ascertain the views of a wide range of undergraduate and postgraduate students on the usability and merit of the ISSE.

It is recognised, however, that involving students in measuring their levels of engagement is not enough. There is a need to close the feedback loop. There is a need first to ensure that students are informed of the results of the ISSE and what improvements are taking place, and then to elicit their views on both the feedback process and the developments that occur as a consequence of the results from the survey. Involving students in the feedback process will increase the likelihood of students providing feedback in the future as well as demonstrating the values of their input in the process.

Conclusion

The quality agenda and the substantial increase in the number of school leavers and mature-aged students entering higher education in Ireland have led to a need to evaluate and understand the quality of the experience of students attending an increasingly diverse and rapidly changing sector. To understand how this changing system is affecting the standard of education delivered and the experience of students, there was a need to develop a measure that would provide students with a voice in the quality process. To this end, the ISSE based on the NSSE and the AUSSE, using a collaborative approach involving key stakeholders in the Irish higher education system, was developed.

The ISSE will provide for the first time in Ireland empirical data on student engagement and the impact of effective educational practices. The results will be used to identify strategies that can enhance academic challenge, staff and student interactions, develop enriching educational experiences, and develop supportive learning environments. This evidence can also be used to inform strategy and policy for national bodies charged with enhancing the quality of the student experience and the delivery of teaching and learning practices within the different higher education sectors.

The approach to development of the ISSE outlined in this chapter highlights the increasing trend in international higher education over the last decade to use student self-reports in evaluation, especially in the measurement of student engagement and student satisfaction. Furthermore, basing the development of the Irish Survey of Student Engagement on a well-validated, self-report of student engagement is in line with the recommendation from a number of reports and policy documents, that students be given a voice in evaluating their experience of higher education.

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Chapter 9
Role-Based Insights into Enhancing Student Engagement

Hamish Coates, Alexandra Radloff and J. Francois Strydom

Using the Role as a Lens

Student engagement spans considerable practical and analytic territory as the fore-going country-specific chapters have shown. The very basic nature of this concept opens myriad opportunities for investigation and educational improvement. However, a hard—if not the hardest—part of applied research is getting organisations and people to convert results into change. Knowing this, multi-faceted improvement strategies have been built into each of the student engagement initiatives from their inception. Typically, this has included regional workshops, national conferences, institutional consultation and advice, meetings with senior executives, ongoing publication and the production of various enhancement guides. The reflection and consultation inherent in this work have shed considerable light on approaches for using student engagement data to stimulate change.

This chapter uses the 'role' as an international vehicle for engaging people in evidence-informed change. Rather than summarising each of the national contributions in a descriptive fashion, this lens carries the benefit of synthesising insights from the cross-national work in recommendations that could reasonably be adopted by professionals across different systems. A few brief suggestive remarks about future development are offered by way of conclusion.

The deep and broad conceptual scope of 'student engagement' weaves many stakeholders into enhancement work—institutional leaders, learners, teachers, support staff, prospective students, parents and families. Large-scale studies offer

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much to many people. This breadth, at the same time, provokes the challenge of indeterminacy—of having too many change prospects on the table to know how to prioritise and proceed. Realistically, different people and organisations find different points of interest and relevance. Even given functional and labelling variations across institutions and systems, the role offers a suitable means of offering concrete suggestions for using concepts and evidence from student engagement research for enhancement work.

These summary insights are filtered through several selected roles. The list is not intended to be exhaustive but rather to offer a canvass for distilling reflections from the cross-national studies. We explore the perspective of senior university leaders, quality assurance professionals, institutional researchers, program coordinators, librarians and academic advisors, career development staff, and first-year experience (FYE) and orientation program staff. While learners remain the primary units of analysis in nearly all deliberations of student engagement,this book is not designed as a student guide and we have not explored that perspective.

University Senior Leaders

Senior leaders have an obvious role to play in enhancing engagement, not least by incorporating student engagement into the strategic life of the institution. Adopting student engagement as a primary attribute of a university is a strategic choice—one made by many of the hundreds of institutions participating in the data collections. It has significant influences on formulating and implementing strategy in many areas: curriculum design, resource allocation, structure of student services, teaching-research nexus, load planning, library services, industry and community engagement, among others.

It is important to promote values that support student engagement. Student engagement has institution-wide impacts. Advancing it relies on institutional leadership. The manner in which the values and principles of student engagement are embodied in institutional practice must vary in response to the characteristics of the student body, which differ from university to university, and from campus to campus. Leadership is always practised in context and student engagement is highly dependent on that context.

Research underlines that students are more likely to persist and succeed academically, when the institution supports learning through enhanced and integrated relationships with peers, academics, student services and the broad intellectual and social domains of university life. This is highlighted by research findings reported in earlier chapters that relate students' perceptions of academic support and whether they have considered departing university. These kinds of relationships prosper when the institution privileges values that focus on the pursuit of high-quality learning. University leaders have a central role in promoting those values and embedding them in practice.

As suggested by applications in South Africa and China, data on student engagement can be used to support evidence-based decision-making. The characteristics of any university's learning community are always evolving, and the pace of evolution is likely to quicken. Many institutions are contemplating changes in the profile of their student bodies as expanded opportunities for access and participation inform policy objectives, funding models and institutional strategy. Changing student characteristics will require frequent review of student engagement practices to ensure that these practices continue to be responsive and constructive. For leaders, this means sensitising academic and professional staff to the need for ongoing change.

Evidence on students' engagement is a crucial input for effective review as it supports continuous improvement. Leaders can convey the importance of engagement data by referring to it in formal and informal contexts, drawing on it as an aid in decision-making and strategic planning, asking academic and professional staff to investigate it in support of their own decision-making and in their monitoring and review processes.

Leaders should work across institutional boundaries. The nature of senior leadership roles in organisations as complex as universities inevitably involves boundary-spanning activity in pursuit of strategic objectives. Advancing student engagement requires just that: working across divisional and disciplinary boundaries and communicating direction. Good student engagement practice requires that academic and general staff take a joined-up approach to learning, student support and student services—an approach made possible through effective leadership.

Quality Assurance Professionals

As earlier chapters of this book have sketched, the idea of measuring and monitoring student engagement took shape through research in the USA on how to provide the most pertinent data for institutional assessment. As a measure of what students actually do, and how they are supported, engagement data provides important insights on key dimensions of institutional practice. As the US Georgia State University case brought out, these insights can stimulate enhancement and improvement initiatives that inform the quality assurance process.

Quality assurance staff should ensure that student engagement is a part of institutional policy. Quality assurance staff have a persuasive influence on policy development about the institution's quality objectives, and the principles and processes that will underpin monitoring and review. Given the relatively recent development of 'student engagement', a number of institutional policies may need revision to take student engagement into account. Processes for organisational review and annual monitoring of and reporting about quality may need ongoing adjustment to ensure that facets of engagement pertinent to a particular institution are considered.

Annual monitoring processes can require a close attention to student engagement data or to specific aspects of the phenomenon. Policy may require that improvement plans resulting from organisational reviews must have specific reference to student

engagement practices within the unit under review. The analysis of 'disappointment' at the University of Guelph in Canada offers insight as to how this might be done.

Usually, improvement plans are targeted at lifting performance in a particular organisational unit. It can also be worth building into policy that good performance in one unit will be explored further and reported to other units. For example, data may show that part-time students across an institution are unhappy with the learning skills support they receive, except for those part-time students in the school of business at a regional campus. Conducting focus group interviews and staff surveys or documenting the practice of advisors could be ways to extend an understanding of good practice as reported by students, and to promote adoption of that practice elsewhere within the university.

Developing a policy may require benchmarking. This calls for data that provides information across an institution, and thus enables benchmarking of one organisational unit with other selected units, and distinguishes areas of good, uncertain and poor performance. As the system-level case studies show, benchmarking is a powerful aid to quality improvement provided that the benchmarked data are reliable.

Profiling good student engagement practice can be used as a helpful reference point. Quality assurance staff in universities have the privilege open to few others—of being familiar with good practice across their institutions. There is no one better placed than quality assurance staff to profile good student engagement practice. Building the student engagement good practice network can be a key part of their role in prompting innovative solutions and responses to the student experience.

For example, results from student surveys, supplemented by some additional research, may reveal that the way in which tutors in a first-year engineering subject have linked tutorial groups via a wiki has had a remarkable impact on student engagement. Tutors in a first-year linguistics subject, who are struggling with student engagement, may never hear about the engineers' wiki, unless they are informed of the successful practice in engineering. Systematically profiling good student engagement practice across institutions, campuses, faculties and departments is a key element of a quality assurance role, including informing faculties and departments of the existence of such a system.

Institutional Researchers

How can institutional researchers advance student engagement? As the chapter on Canada shows very clearly, institutional researchers play a vital role in analysing, interpreting and communicating insights on student engagement. Results provide a variety of staff and students with a wealth of information, and can inform course reviews, support strategic analysis at the faculty and campus levels, and enrich reviews of support services offered by administrative divisions.

A considered approach to using data on students' engagement ensures that the data and analyses are fully understood so that the greatest benefit from collecting data is achieved. Such an approach includes reporting results to staff and to students, and on actions planned by the institution in response to survey outcomes.

Institutional researchers can demystify student engagement data. Users of data need clear information and advice about what the data and analysis do—or do not—tell them. They can offer their colleagues a comprehensive understanding of the different facets of student engagement. They can explain the methodologies used to develop the survey sample and determine results.

Institutional researchers can identify and respond to the data needs of different audiences. Reports and analyses need to be fashioned and presented so that they meet the needs and interests of different audiences. A summary university-level report will offer a level of analysis and detail different from that provided for a course review. Similarly, a summary report for students of empirical insights into their own engagement demands a particular focus.

Responding to the specific needs of different audiences requires that summary tables and charts be supported by textual explanations to ensure understanding of what is being presented. Institutional researchers may provide support and advice to the interpretation of evidence on engagement by advising reference/steering groups; liaising with academic development units; and contributing to resources developed to enhance the student experience.

Of course, engagement data should be interpreted within an institutional context. Maximum benefit from data is gained through robust discussion of student engagement that is informed by data analysed and interpreted within the context of an individual institution. What is important to each institution at a given point in time will depend on contextual factors relevant at that time. Interpretation of the data must recognise these contextual factors. This was highlighted in the US example of Illinois College.

Institutional researchers can undertake advanced analysis of student engagement data. They can support the nuanced application of data in many ways, including:

- Benchmarking at the institution level, or at a lower level of aggregation (e.g. faculty, school, course), depending on response rates and number of responses;
- Linking with other surveys, enrolment and assessment data sets; and
- Analysing open text comments (see: Chambers and Chiang 2011) to make best use of this valuable feedback on student engagement.

Benchmarking is an activity that institutional researchers and their teams have the skills and knowledge to support. Productive benchmarking depends on nuanced interrogation of data. Comparisons within and between institutions must account for variations in cohort composition such as relative proportions of part-time and full-time students, or of international and domestic students. These variations have a significant influence on an institution's student engagement outcomes.

Department Chairs

Department Chairs play a significant role in shaping student engagement. People in these roles are a pivot point for successful student engagement. They have a definitive influence over how student engagement is integrated into programme design,

and how it is reflected in teaching practice. They influence how the programme actively links its students to learning skills support, student services and the wider life of the university. They influence the development of policy and processes so that they promote high-quality learning outcomes for their students.

Department Chairs can put student engagement on the agenda when a programme is reviewed. Taking account of the kind of approach and results discussed for Western University in Canada, programme and course or unit reviews are good opportunities for shaping curriculum in ways that promote student engagement. Because so much learning goes on outside the classroom, a key area for focus may be to influence the kind of learning that takes place outside the lecture, the tutorial or the laboratory.

It is important to support teachers to work with student engagement principles. Tutorials and laboratory sessions often rely on a variety of part-time and adjunct teachers who may have limited knowledge of the principles that underpin student engagement. Yet, teachers are the academic staff with whom most students have the greatest level of interaction. Department Chairs can ensure that induction and professional learning opportunities for teachers include reference to student engagement research and the way in which student engagement principles are embedded in unit learning and assessment designs. They can ensure that teachers are introduced to ideas about how to promote student engagement in small-group learning environments.

Tutorials provide ideal opportunities for structured peer-learning activities, which have additional benefits beyond the tutorial. Properly managed, they can foster beyond-classroom study groups, friendships and informal networks by bringing together students who may not know each other. As the principles sketched in the opening chapter and country case studies affirm, both peer learning and connectedness increase student engagement.

Department Chairs should identify opportunities for faculty–student interaction beyond the classroom. Creating opportunities for interaction between teachers and students is especially important for sustaining student engagement. Students value formal and informal interactions outside the classroom. Such interactions can reinforce motivation, a sense of purpose, a sense of connection. As the literature and findings in the earlier chapters convey, they contribute to student persistence and better academic performance.

Part of the challenge is to establish opportunities for frequent interaction with teachers. Inherent in the conceptual and empirical frames that shape student engagement is an understanding that student–staff interactions have a significant impact on high-quality learning. In the Australian case, therefore, it is disconcerting that so few students report meaningful and frequent interactions with teachers outside the classroom. Teachers have seen this differently, with results from the faculty surveys showing that more faculty than students believe they have meaningful and frequent interactions with students beyond the classroom. Exploring these perspectives with students and staff may clarify what is at the heart of such divergent views and provide a platform for insightful change.

If there were no student organisation to which students in a programme would readily belong—a microbiology students' society or an international relations society—is it possible to support the establishment and maintenance of a student association? If there is such a society, how actively is it supported by teachers in that programme, by the faculty, by student services? A student organisation may provide the structured opportunity for students to discuss research or their career aspirations with academic staff.

Librarians

Librarians offer a particularly useful lens for exploring the leadership of student engagement. Libraries share much across organisational and also national borders, and have tended to be early adopters and advocates of enhancement practices.

Libraries can engage students with learning in many ways. The physical space itself can be used to ensure that there are sufficient resources available to students, enough independent study areas, collaborative learning spaces and sufficient numbers of computers or wireless access areas. Although increasing numbers of students are not campus-based, it is still important to consider how the physical library space can best engage students with the library and with learning. Are the collections easy to access? Do the operating hours meet students' needs? Are there enough computers or areas where students can connect to the internet wirelessly? Are the silent study areas and collaborative learning spaces adequate? How could they be improved?

Libraries also exist in the virtual world, allowing distributed learning to take place, and allowing access for external, distance and online students, and for more flexible kinds of learning. Librarians also contribute to student engagement by providing expertise to students through formal workshops or tutorials and by providing guidance informally. Librarians help students learn the best ways to access and use quality information and resources, help them to enhance their study and research skills and explain how to use the latest technologies to enhance their learning. It is important to increase student access to library resources as much as possible. Increasingly, even at campus-based institutions, students are studying part-time, online, externally or by distance. As a result, university libraries are progressively becoming distributed learning spaces to cater for more flexible learning, and for part-time, distance and external students.

Many university libraries now keep their students up-to-date on new acquisitions, upcoming workshops and classes, and changes to opening hours via social networking sites. Students who add their university library to social network accounts receive these updates as part of their newsfeed. Other universities use feeds or send out targeted emails to students to keep them updated on what is happening at their library.

Students are now used to accessing library resources via the web at any time. Universities are making access to library resources even easier and more flexible by

allowing students to add their catalogue searches to personalised homepages, or by letting them search the catalogue using social networking sites. Some universities have even created a mobile web version of their library website and catalogue, giving students the flexibility to access their library on smart devices, at whatever time and wherever they (and a good wireless connection) are.

Libraries also make it easier for students who cannot come on campus to access librarians and their knowledge. Libraries do this in various ways, through online functionality, such as live chats, Instant Messaging or online forums where they can consult with library staff, and through podcasts of classes or tips on researching, referencing and using library resources.

First-Year Advisors

As indicated in the cases of the USA, Canada and South Africa, the data obtained from the range of student engagement surveys can be meaningfully linked over time at the individual student level to understand how students engage. The particular example of linking BCSSE (BUSSE) and NSSE (SASSE) data to inform first-year experience and orientation programmes has been noted in the chapters.

FYE and orientation programmes serve as an avenue where student engagement data can be used to design and monitor curricular experiences for first-year students, while simultaneously being used as content material. The example of the 'disappointment index' illustrated by the case of the University of Guelph in Canada indicates how matched engagement data can inform areas in need of improvement within the institution. Using matched engagement results such as this in the design of FYE curriculum presents a unique opportunity for a campus to require students to participate in a wide range of effective educational practices.

Using data from recent engagement survey administrations in the content material of such programmes is a powerful way of bringing research results 'closer to home' and making students aware of the experiences of their peers. Furthermore, by incorporating research results into programmes in this manner, students are made aware right from the start of their campus experience that the institution takes assessment seriously and that their input into research processes is not only valuable, but also used meaningfully by campus leaders.

Academic Advisors

Language and academic skill advisors help students develop their capacity to participate effectively in learning. The Australian research clarified the basic role of student support for student retention and success. In essence, academic advisors play a role in providing this support given their student-focused perspective.

Their contribution to student engagement may be direct, through the teaching of academic skills, or indirect, through a referral to other services that promote wider aspects of student engagement. Knowing about the range of services and other avenues that support student engagement is an important part of every advisor's role.

Advisors may work one-on-one with students, supporting them to develop strategies to more actively contribute to tutorial discussion: asking questions, critically analysing information and volunteering answers. They can help students understand why attending lectures and reading materials before the tutorial are key to effective participation. They might draw the attention of a shy or lonely first-year student to university clubs and societies. Advisors are in a position to identify volunteering opportunities for students that may help them develop confidence, make friends and feel more engaged with the university community.

Advisors can design language support programmes to build student engagement. They can play an important role in student engagement by creating, and helping to maintain, support programmes that extend beyond the traditional classroom or advisor relationship.

One possibility would be working with community agencies to integrate a volunteer component into language support programmes. Through community involvement, students can practise communication skills, develop wider personal networks and contribute directly to the university's engagement with its region.

Another example would be to design and support, perhaps in concert with a faculty or academic programme team, a conversation club for international students that enlists domestic students as facilitators. Advisors could provide training to the domestic students on how to lead a group effectively. This kind of exchange can be both fun and rewarding. International students can make connections with domestic students and learn more about the local culture. Strategies like this would likely yield benefits for domestic students too as they become more engaged in university life through contact.

Advisors can put their advisory skills to work in clubs and societies. They have a range of capabilities that can directly support student engagement and academic skills development. They can connect their capabilities to the needs of clubs and societies and other student services. For example, if a student society or club is planning an event, advisors could contribute by using the planning phase as an opportunity to teach teamwork and project management skills.

Career Advisors

A significant amount of students' academic engagement is undertaken in order to prepare for life after higher education. Employers recruit graduates who are well rounded and have a range of skills over and above those gained in the classroom. Careers staff can encourage students' involvement in a variety of extra-curricular activities, both at university and externally which will develop their skills in a range of key areas. Extra-curricular activities help students to develop the broader skills

that employers seek. These skills are often related to universities' graduate attributes and include communication, teamwork, problem solving and organisation, among others.

Participating in extra-curricular activities enhances students' résumés and interview content. Students can present evidence of participation in these activities to demonstrate they are well rounded and have a range of sought-after skills. In addition, it seems likely that students' knowledge of themselves—their interests, aptitudes, values and strengths—grows enormously with exposure to a range of different activities and experiences. This, in turn, makes for more informed career decision-making.

Consider the best ways for students to get involved. On campus, students can host new students during orientation, become a peer mentor, assist on open days, write for the student newspaper, serve as an office bearer for the student union or be actively involved in a club or society. Off campus, students can do volunteer work, which is especially useful if the work is related to the student's career goals.

Other activities that could be valuable in broadening students' lives and their development beyond the university include sporting clubs, community groups, involvement in a range of interest areas, and of course, part-time or casual paid work. All of these activities develop skills and knowledge and enable students to learn more about themselves and their potential.

A key role of the careers professional is to assist students to understand the value of participating in these activities, and to provide students with insights into the learning that can occur through involvement in them. Assisting them to see the relevance to later employment, and where careers may link in with these activities, is one of the main responsibilities of the careers professional.

Careers advisors could hold a volunteer day, in addition to careers fair, where they can advertise opportunities, such as hosting or mentoring students and volunteering for various organisations. Some strategies for careers staff include emphasising the benefits of getting involved in volunteering and other activities—not only to students but also to academic colleagues, including a hand-out in orientation material about the value of getting involved, making sure casual and part-time work advertisements highlight why working casually or part-time is beneficial for a future career.

Even in the most elite higher education settings, work-integrated learning is one of the key aspects of student engagement that is relevant to staff involved in student careers development. Work-integrated learning provides many benefits to students, including:

- An opportunity to put theory into practice and gain valuable workplace knowledge and skills;
- An insight into an industry or career they may be interested in pursuing;
- A range of valuable experiences and insights that can be highlighted in the résumé and during interviews; and
- Better insight into, and appreciation of, theoretical content on return to the classroom.

Careers staff can best assist students to extract the most from work-integrated learning by:

- Assisting students to best understand what they have learned and experienced, and why that is valuable to employers;
- Assisting students to optimally present both the skills and knowledge they have gained via their résumé; and
- Encouraging students to document their experiences in an e-portfolio when that option is available.

For other stakeholders, careers staff can also add to the value of work-integrated learning by:

- Working with academics to ensure they are assisting students to understand the value of work-integrated learning;
- Encouraging students who have undertaken work experience or another form of work-integrated learning to speak to other students in class to convey the benefits and give other students advice; and
- Determining if a graduate employer may be prepared to take students on for a period of work experience and linking with employers to see if they could take more students and students from other areas.

In summary, to enhance student engagement, career guidance staff can:

- Act as a key source of expertise, with current knowledge in the university about what employers are seeking in the way of skills and knowledge in addition to technical knowledge and classroom learning;
- Collect resources relevant to this—directly or indirectly—through the campus, community etc., and interpret it for the students;
- Make these resources available and visible to students;
- Promote the value of involvement to students (and academic staff) at every opportunity;
- Publish 'good news' stories of student endeavours wherever possible, using websites, university newspaper and flyers; and
- Ensure that workshops and individual consultations with students highlight the importance of, and possibilities for, student involvement with relevant groups on and off campus.

Clearly, there are myriad ways in which careers staff can encourage and help students participate in activities that enhance learning and development outcomes. This is important in and of itself. Encouraging students to participate in these types of activities helps students augment capabilities that will help them build their future careers.

Springboards for Action

As the role-based perspectives described above suggest, the ideas explored in the earlier chapters do not require substantial or complex interpretation to guide change. Student engagement data is designed to be practically focused, typically linking directly with specific individual or institutional conditions or practices. In principle, therefore, it becomes easier for a broad range of stakeholders to review survey results and identify contextually relevant responses.

Unfortunately, evidence-driven change is usually extremely difficult to achieve. Data from feedback surveys is only a small facet of broader institutional contexts in which many complex factors are at play, and such data can itself be indeterministic. Data pointing to low levels of interaction between students and faculty may imply faculty disengagement or student disengagement or the presence of practical obstacles that neither party can work around or perhaps even a nuanced situation that goes undetected by a few individual survey questions. Understanding the effective transference of data into effective change is a significant research activity in its own right, and one, which this summary chapter has only begun to touch.

By way of conclusion, it is important to reiterate the extensive research conducted in the USA that has built up detailed profiles of institutions that manifest effective educational practice. In 2002, a research team launched Project Documenting Effective Educational Practice (DEEP)[1] (see Chapter 2) which conducted case studies of 20 high-performing institutions. This work produced a suite of practice briefs that, with the same spirit of this chapter, charted the meaningful ways in which people in various roles could make to students' engagement. As we have suggested in this chapter, interpreting data on student engagement through the lens of the role is a practical form of inquiry to be encouraged as part of any institutional quality improvement work.

References

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[1] See http://nsse.iub.edu/institute/_/?cid=70.

Chapter 10
Broader Strategies for Developing Student Engagement

Hamish Coates and Alexandra Radloff

Introduction

The preceding chapter offered snapshots of how people working in different roles might understand and develop students' engagement. But student engagement is a complex and dynamic phenomenon that often cuts across conventional organisational structures. Hence, important challenges and opportunities are best considered from a higher level or even a cross-institutional perspective.

Taking a broader quality-improvement perspective, this chapter explores how institutions can use survey results to prompt change. With the intention of being helpfully prescriptive, the chapter reviews development of institution-wide approaches to enhancing student engagement. Subsequent sections consider strategies for reporting what students have achieved at university, establishing benchmarking for continuous improvement, broadening staff involvement in student learning, enhancing student interactions with staff, and monitoring quality data over time.

As with the previous chapter, this chapter skims broader perspectives from the insights that flow from involving thousands of people in large-scale projects over several years. It is normative by nature, but builds directly on expansive research processes and insights integrated and presented in this book. The sections give life to strategic approaches for enhancing higher education by linking these with propositions for boosting student engagement. These are concept pieces that to work would need considerable refinement and adaptation within the organisational context and operational environment of a particular program or institution.

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Developing Institution-Wide Approaches
to Student Engagement

Responding to student needs is a basic tenet for engaging students. Developing a successful student engagement strategy means building student perspectives into the way an institution organises itself around students. The starting point is students rather than institutional structures and procedures.

Student engagement rests, first, on the idea that students are independent learners with responsibility for managing their own education. Second, it rests on the idea that a university has a responsibility to create an environment that supports and encourages students to manage their learning effectively. The selection of student engagement strategies is informed by considering how to allocate institutional resources so that creative and productive relationships are established between students, their learning journeys and the institution.

A key characteristic of effective student engagement is an integrated web of supportive institutional practices. Establishing and maintaining that web involves identifying the potential for creative and productive links between practices as diverse as career and employment services, student guilds, advising, learning support, study abroad, peer tutoring, faculty/department academic strategies, the use of diagnostic assessment designs in the early part of semester, cafeteria hours, and so on.

It is vital to develop responsive strategies for effective student engagement. The selection and development of strategies that promote engagement will depend to a considerable extent on:

- Academic and professional staff understanding the student engagement evidence base;
- Close appreciation of data, including student engagement data, that will help guide the crafting of strategies;
- Recognition that students are not homogenous, and that different strategies will be needed for different groups of students; and
- Recognition that institution-wide strategies cannot substitute for student engagement strategies at the academic department level.

It is particularly important to understand the principles of student engagement. Student engagement has a deep evidence base built up over several decades. Academic and professional staff are more likely to accept that strategies for student engagement should have some priority if they have the opportunity to understand the evidence base for student engagement and the principles that follow from it. This matters because all staff are busy and all have multiple priorities and commitments. Adopting new strategies necessarily means that existing workloads and priorities may have to be reconsidered to make room for those strategies. Sometimes adopting new student engagement strategies will require incremental changes to existing practices. Other times new strategies will require more than adaptive change—they will require adoption of new ways of working as well as new approaches to recognising and rewarding that work.

An understanding of the principles of student engagement can act as a filter and a guide for academic and professional staff who are planning and reviewing, or making minor adjustments to, academic programs, assessment practice, teaching designs, student learning and other support services, orientation programs, open days, career services or approaches to supporting peer-to-peer interactions in both academic and social contexts.

The best means of securing a deeper understanding of student engagement will differ between and within universities. Specific professional development on student engagement may be necessary. It may assist if other professional development activities incorporate student engagement perspectives, as well. Task-specific support may help. Targeted and knowledgeable input on student engagement could be offered to a teaching team refreshing first-year engineering subjects, or a group charged with developing a capstone subject in international development, or faculty course advisors evaluating the effectiveness of their service delivery over the past year.

Analysis and interpretation of data will be instructive and influential if the principles of student engagement are widely shared. The data can be a key input to selecting strategies, and to their planning, monitoring and evaluation. Particularly when compiled from multiple sources and modes, it can provide a firm foundation for conversations about quality enhancement.

Student engagement is a complex phenomenon. Institutions will have access to other data that will support their inquiry and strategy selection—the data of their benchmarking partners, retention data, student evaluations of teaching, perhaps data from another survey or focus groups on orientation activities or a work integrated learning program. An institution's student engagement data are a valuable resource that offers a particular and important perspective, but it will be one resource among many.

Student engagement data are particularly helpful in identifying how different groups of students evaluate their experience. These differences allow users to identify institution-wide strategies that address shortfalls in student engagement for particular groups such as first-year students or international students.

For example, if only 25 % of an institution's first-year students report using student learning support services often or very often, a general strategy may be required to promote greater use of those services. A closer look at survey results may reveal that 40 % of first-year international students make use of these services, but only 20 % of domestic students do so. This might suggest that targeted strategies are required.

Institution-wide strategies can substitute for localised strategies when they are needed. Suppose 25 % of an institution's first-year students in humanities fields report working with other students on projects during class. Yet an institution-wide analysis notes that 40–60 % of students in other fields of study report working with other students on projects during class. These data might suggest that a particular focus is needed in some faculties or departments to consider how tutorials are delivered or how assessments are designed.

While a localised response may be required in the example above, local responses have a much better chance of success if there is a supportive institution-wide approach to student engagement. It is likely that an institution-wide approach will be needed for the analysis and reporting of survey outcomes, to support monitoring and evaluation of changed practice, and to explain the evidence base and the principles of student engagement to specific groups of academic and professional staff. An institution may undertake an institution-wide audit of existing practices against key principles of student engagement. The institution could then establish specific and regular reporting mechanisms such as annual student engagement reports. Student engagement could become a standing item on appropriate academic, management and business committees. Other options, which have both symbolic and practical impacts, include establishing:

- A university office for student engagement;
- Institutional awards for student engagement; and
- A fund for developing student engagement practices, or for pursuing research on aspects of student engagement.

Graduate Engagement Statement

An initial step towards developing student engagement strategies would be to document student activities. As the research discussed in this book affirms, participating in co-curricular activities plays an important role in developing high-quality graduate outcomes. 'Beyond-class' experiences make formal learning more relevant and provide valuable learning experiences of their own. These are all beneficial to students because employers value graduates who have demonstrated their capacity to engage successfully in social and professional activities.

The Australian Higher Education Graduate Statement or AHEGS (Commonwealth of Australia 2008) highlights the value of such experience. It encourages universities to list details of courses such as workplace learning, study abroad, independent learning, professional placements, and employability assessments. Only information that can be authenticated by the institution can be included.

Assessing student engagement provides a foundation for recording such achievement. It creates a culture that values students' overall development and a lens for viewing graduate success. Developing the graduate statement may assist this. Each university needs to decide which facets of students' educational experience best demonstrate graduate capability. This might be gleaned by review of course characteristics, consulting with the knowledge transfer or community engagement office, or speaking with graduates and employers. The questionnaires used to collect information in the NSSE suite of surveys provide an inventory of many of the more significant beyond-class activities. An institution's survey results will provide useful insight into what their students are doing. For instance, a taxonomy might divide student experiences into those concerning cultural and international exchange,

research, community service, leadership, professional experience, or creative and artistic expression. There may be other categories that link with the institution's location, mission or student profile.

For the graduate statement to have legitimacy, there needs to be a robust process for gathering and authenticating students' achievements. Some universities will have procedures in place, though these may be concentrated within teaching departments or specific units, such as exchange offices. Given the certification requirements of the AHEGS, for instance, there may be value in establishing a central process that assumes responsibility for this initiative on behalf of the institution. In many instances, students will have already participated in relevant activities, and what is required is a means of encouraging them to report and validate their experiences.

Harnessing data on students' broader achievements can send a message that the institution values such engagement. It can further stimulate participation in broader institutional activities, and demonstrate the capability and diversity of the institution's learners and graduates. The process can develop authenticated reports that demonstrate the graduates' professional potential, and distinguishing the institution's graduates from others in this way can greatly assist graduates in demonstrating their professional capability.

Benchmarking for Continuous Improvement

Benchmarking can deepen the analysis and interpretation of data on student engagement, and what it can yield. Student engagement data can be benchmarked using criterion- or norm-referenced approaches. Benchmarking might take 2 h or a year, or ten. Each institution decides what is appropriate. Benchmarking activities offer opportunities to involve students in the collection and analysis of data.

Criterion-referenced benchmarking involves establishing a target. Usually the target is either a specified minimum outcome, or an outcome an institution aspires to. For example, the faculty/student interaction items in the NSSE ask students to assess the frequency and nature of their contact with teaching staff. Data for an institution or faculty may show that 25 % of first-year students report they 'often' or 'very often' have contact with teaching staff outside of class. An institution might decide—perhaps as part of a first-year strategy—that 50 % is a preferred result on a metric of student and staff interaction. By nominating the preferred outcome—in this case, 50 %—an institution establishes a criterion, a benchmark they aspire to. Against the criterion they can measure the effectiveness of changes put in place to increase the proportion of students who report that such interactions occur 'often' or 'very often'.

Norm-referenced benchmarking involves comparing the institution's outcomes with other universities or faculty outcomes with kindred faculties in other universities. Normative benchmarking can be undertaken simply by comparing the

institution's outcomes with the national or international results. This can give a general idea of the institution's relative performance on particular scales and items.

A deeper sense of the university's or faculty's performance can be gained through active benchmarking of their arrangements with selected universities or faculties. For example, an academic or professional staff member in a law faculty is likely to increase significantly the power of data analysis and interpretation by comparing the law faculty's outcomes with those of a law faculty in one or more other universities. This kind of normative benchmarking would extend good practices of student engagement in legal disciplines. It can also help in determining appropriate targets for criterion-referenced benchmarking in the law faculty.

Benchmarking relies on the willingness of benchmarking partners to share data. As the data belong to an institution, the institution then decides which results to share. Initially, an institution might agree to share only scale results rather than results for each survey item. They might decide to share only results for particular scales. As their confidence grows, they may agree to share more.

It is especially helpful to compare results over time. To this end, benchmarking partnerships are usually long-term arrangements. Benchmarking partners usually establish a benchmarking agreement, covering matters such as:

- Confidentiality of an institution's shared data;
- Confidentiality of the discussions the institutions have about the data;
- How benchmarking with partners will be conducted; and
- The schedule for benchmarking activities.

Every faculty in every university—such as business, law, science, medicine—is different in important ways. Benchmarking allows them to tease out the influence of those differences on their outcomes. If an institution's business faculty operates across two campuses and one of their benchmarking partners offers business programs on one campus, they can explore through discussion what effects these arrangements might have on their respective outcomes.

Students in different disciplines manifest different patterns of engagement. If results indicate that those studying information technology are frequently less engaged than those studying natural and physical sciences it would thus make sense for an information technology department to seek another information technology department as a benchmarking partner. Through these discussions, they can better identify influences on student engagement for students in their discipline. An institution can assess impacts for information technology students of varied approaches to work-integrated learning, for example, or the creation of supportive learning environments.

Such discussions can reveal ideas about, and perspectives on student engagement that are new and helpful. Benchmarking can offer ideas for adjusting an institution's practice based on the practical experience of their partners. Partners often develop better approaches through discussion and sharing of practices. Benchmarking is a clear indication to students, to accreditation and quality assurance bodies, and to the institution's professional networks, that the institution takes student engagement

seriously. An institution can report outcomes of benchmarking discussions to these groups, if the benchmarking agreement covers this.

Selecting appropriate benchmarking partners is an important decision. It can help if benchmarking partners are similar in some ways. An institution might consider faculties or departments with similar characteristics such as student numbers, student demographics (such as proportion of students who are first in family to attend university, or proportion of students studying full-time) or location (provincial or inner-city). A particular faculty might consider faculties that are strong performers on scales or items where the faculty's performance is not as strong as they would like.

Process benchmarking is another option. Sometimes an institution may wish to explore differences, or similarities, in survey outcomes at greater depth. Perhaps 22 % of an institution's first-year education students respond 'quite a bit' or 'very much' in response to an item about whether an institution emphasises providing the support students need to succeed academically. An institution's benchmarking partners may have outcomes ranging from 42 % to 56 % on this item. Yet, based on discussions, the institution believes that the range of support services they offer is as wide and deep as their partners. An institution could seek the agreement of their partners to study in depth how they link their first-year students with these services, how those services are managed and how they are delivered.

In effect, an institution can process benchmark their own services against their partners' services in order to determine if there are improvements they could make. Benchmarking can also reveal fertile areas for research activity, which contribute to advances in the scholarship of teaching and learning. This research could be within a school or department, or cross-institutional within a discipline. It may be research that seeks to describe or explain exceptional and consistent outcomes, or it may be research that seeks to describe the impact of changes to practice that an institution introduces.

Broadening Staff Involvement in Student Learning

Student engagement data can be a key input to reviewing entire courses of study, revising assessment designs for first-year students or revising feedback practice in a single subject. The evidence base that underpins the NSSE and its adaptations illustrates a clear link between student engagement and learning experiences that are challenging, enriching and supportive.

Exploring an institution's data with these aspects (support, challenge and enrichment) in mind can suggest areas for extension or improvement. As flagged in the chapter on Australia, there is a strong correlation between satisfaction and positive responses on engagement questions about applying theories or concepts to practical problems or in new situations. Improving the proportion of positive responses to such an item could involve a minor or a major review of pedagogical approaches

and materials, such as case studies and tutorial problems. An institution can explore options that go beyond the classroom in pursuit of enhancing student engagement. For example, staff could design assessment tasks that can be completed through voluntary activities with community organisations, or in work placements. This kind of change is valuable in its own right. The challenge is to broaden teaching involvement with students beyond the familiar boundaries of coursework and classroom—to see learning, and an academic's role in supporting learning, in a wider context.

The surveys reviewed in this book include, for instance, an item that taps into whether students received prompt written or oral feedback from teachers on academic performance. Feedback practice need not be limited to conventional activities like oral feedback on a group tutorial presentation, or written feedback on a test or assignment. A department or school could, for example, institute a debating event in a subject twice a semester with two teams of three tackling an impromptu topic. Each team might comprise two students and one academic from a department or school. A program leader could be the moderator, or perhaps the Head of School could fill this role, with moderation involving commentary on the debate and a short email to the student team members assessing the content of their presentations. The emphasis is on enjoyment, the outcome is learning, and the feedback is valuable.

A voluntary seminar program for first-year students is another forum in which students could receive valuable feedback that is not linked to graded assessment. Students are valuable contributors in such activities. An academic can create challenging, enriching and supportive learning experiences by seeing students as competent contributors to the work of the university. Peer tutoring is a great example of this but it may not be an option that appeals to all students, or that all students are able to participate in.

If an academic sees students as formative contributors, and they accept that students are interested in challenge and enrichment, there are many options that can broaden an academic's involvement in student learning beyond coursework. For example, students can:

- Take guided responsibility for literature searches and literature reviews;
- Assist in editorial activities related to academic journals such as layout, checking of reference lists to ensure they conform with the relevant style, cross-checking in-text references with reference lists;
- Assist with translation of documents related to academic research;
- Introduce speakers at public lectures, and offer acknowledgements; and
- Play a substantial role in promoting the study of science and mathematics in primary and secondary schools as part of the university's community engagement activities.

Such contributions do require preparation and guidance from academic and professional staff. Developing such contributions as on-going activities in a particular subject, department or faculty will lead to a growing fund of knowledge about how to structure preparation and guidance efficiently. Students who contribute in such ways can become part of the training effort for students who follow them. Inevitably there will be successes and some stumbles.

As each of the contributions in this book has signalled, student engagement, like most learning activities, is multi-faceted. Activities like those mentioned in this chapter will influence student responses to more than one questionnaire item. The student engagement pay-off is potentially very high. The idea of a debating activity, for example, could influence student responses to several items such as:

- 'Making judgments about the value of information, arguments or methods, such as examining how others gather and interpret data and assessing the soundness of their conclusions';
- 'Discussing ideas from readings or classes with others outside class (students, family members, co-workers, etc.)';
- 'Discussed ideas from readings or classes with teaching staff outside class'; or
- 'Relationships with teaching staff'.

Teachers can make a difference well beyond the classroom—and the literature on student and faculty interactions that underpins contemporary student engagement research indicators that this is where many of their most formative contributions can be made. Innovation in teaching practice that promotes student engagement does not need to be confined within the boundaries of coursework. Innovation beyond those boundaries is likely to improve student engagement and, consequently, contribute to improved learning outcomes.

Enhancing Interactions Between Students and Staff

Much of this book emphasises the importance of engaging students outside classes. Many academic and professional staff are generous with the time they commit to interacting with students. It may be found, for example, that 21 % of students had worked with teaching staff on activities other than coursework, and that 44 % of students reported talking about career plans with teaching staff or advisors. The complement of these figures, of course, is that 79 % of students had not worked with staff on activities other than coursework, and 56 % of students had not discussed career plans with teaching staff or advisors. Yet broad research evidence suggests that high levels of student–staff interactions have positive effects on learning, motivation, persistence—on engagement.

Results from student surveys may be utilised to target wider engagement. When considering how to promote greater staff–student interaction, it is important to go beyond preconceptions that limit thinking and action. A common preconception is that many, or even most, students are rarely on campus. The presumed corollary is that because students are absent they have no time to interact with staff outside of class time. Survey data can provide a check on the veracity of opinions like these. Survey results may indicate that 22 % of domestic students, and 36 % of international students, spent more than 10 h a week on campus outside class time.

The faculty/student interaction scales used in the various national implementations comprise around six items. An institution's survey report provides data on

the scale and each constituent item, and with a breakdown of the data for first-year students and later-year students. Data are also reported for other variables like field of study and study mode (part-time, full-time or distance). An institution can use these data to establish, for example, how many hours outside class time their later-year international students studying information technology spend on campus. It can help to compare an institution's data with national outcomes, and with benchmarking partners. The comparison might lead an institution to set a formal target for improving the outcome on the faculty/student interaction scale. Equally, an institution can approach the task incrementally by trying a range of interventions on a trial basis and examining what strategies make a difference then expanding the successful ones.

Often the challenge is to make existing engagement strategies work more effectively. Student engagement data may offer an effective way of reviewing existing strategies. It may be that 30% of an institution's first-year students in management and commerce answered either 'often' or 'very often' to an item about discussing grades or assignments with teaching staff. The institution needs to decide if that percentage is a satisfactory outcome. The institution may investigate further and find that although all lecturers and tutors have scheduled hours for student consultations, very few students make use of the opportunity. They may find that first-year students feel uncomfortable about taking up the opportunity—students may not know anyone else who has done so, they may be uncertain what happens during a consultation, or they may be unsure about the benefits of a consultation. Academics and educational support staff can then begin to think about specific actions that might encourage students to take advantage of the opportunity by lessening anxiety. A description provided in a lecture or tutorial perhaps, or a testimonial report from students who have scheduled a consultation, or a video clip of a consultation accessible on the university's learning management system are examples of possible actions.

Student–faculty interactions are often thought of in formal terms like scheduled consultations. Such opportunities are evidently fundamental to education, but it is also important to develop informal engagement strategies. Further, it is useful to consider how informal interactions can become a larger part of the student experience. Opportunities for informal interactions open up possibilities for conversation across a wide range of topics, introduce students to previously unexplored ways of engaging with their subjects and disciplines, and place the learning project in a relaxed context which supports engagement.

Informal opportunities can be as straightforward as having coffee with a small group of students now and then, and guiding conversation towards the career options a discipline leads to. Another option may be inviting three or four students to a lunch with a visiting scholar who has expertise in the topic for their team project. Another example may be running a late afternoon review session in the week before the first-year exam, ending the session with delivered pizzas. These are but a few possibilities; specific opportunities are best developed with sensitivity to student needs and institutional culture, and in consultation with student representatives.

It is common to think of staff/student interactions that promote student engagement as taking place only between faculty and students. Professional staff can also play a role well beyond offering a scheduled learning support activity, or dealing

with students on a formal, transactional and administrative basis about matters such as enrolment, special consideration or course advice. Finding ways to include professional staff in student–staff interactions can produce a sense of 'us' rather than 'me and them', while also reinforcing shared responsibility for student success across functional areas and job descriptions.

Monitoring Quality Data Over Time

As with any survey, the impact is most powerful when institutions examine how results change over time. Monitoring results over time allows institutions to:

- Identify areas for further growth;
- Recognise and celebrate achievements;
- Identify areas where performance seems to be declining;
- Monitor progress toward improvement targets;
- Identify professional development priorities for academic and general staff; and
- Demonstrate quality improvement to students, to accreditation and quality assurance bodies, and to professional networks.

Reviewing an example from the Australian 'Work Integrated Learning Scale' brings out the point. Assume these are the outcomes over 2 years for later-year students. With only two administrations, it could be difficult to see clear performance trends. It might be that there is an improving trend, but initially it would be necessary to rely more heavily on other data to help explain the results. Other contextual data could be derived from evaluations or reviews of work-integrated learning programs, follow-up surveys, focus groups or cognitive interviews. Analysing data with benchmarking partners may help staff to see work-integrated learning programs in a new way, and may provide useful ideas for tackling areas of apparent underperformance.

Developing such a broader frame of reference is time well spent. The expertise built in gathering and working with complementary information will be useful for quality improvement practices over the long term. Survey results can indicate where to look for good news, or for problem areas. But interpreting data will always rely on the specifics of an institution and students' characteristics. No two institutions, no two faculties, are the same.

Monitoring the Work Integrated Learning Scale over 5 years would highlight how survey results become more powerful over multiple administrations. It might be that the student perceptions of the work integrated learning program over 2 years are not improving, but moving within a consistent range. It might be that in a specific year the institution introduced an improved approach to work-integrated learning which accounts for an observed improvement. Subsequent years' results may be better still, perhaps because the institution ironed out some teething problems encountered. Only people on the ground know the story behind the numbers. Only they can tell it. Every university, every faculty, is different. None of this means that the first 2 years' results are useless. The first 2 or 3 years of any data collection need to be seen in the context of the institution's long-term quality improvement cycle.

Leading with Evidence

Emerging from the country case studies presented earlier in the book, this synthesising chapter showcases a small number of ways that people with responsibility for leading and managing student engagement can structure their work. We reviewed developing institution-wide approaches to student engagement, producing strategies for reporting what students have achieved at university, establishing benchmarking for continuous improvement, broadening staff involvement in student learning, enhancing student interactions with staff, and monitoring quality data over time. The strategies and practices are discussed in a necessarily normative way given they are gleaned from the experience of the country experts and likely to be effective.

But the suggestions are not intended to be exhaustive or essentialist. Rather, they are designed to prompt imagination in ways that spur innovative approaches to monitoring and improving engagement. Ultimately, the approaches discussed here seek to energise one broad agenda with the aim of enhancing engagement—encouraging people who have the potential to make a difference to take evidence on student engagement seriously. The quality improvement literature suggests that there are an infinite number of ways this might be done, and in closing the current analysis we encourage creative consideration of further effective approaches. Are there particular approaches to recurrent or performance funding, for instance, which are likely to enhance engagement? What generalisable reporting designs and approaches are likely to spur the right kinds of action? What would student engagement frameworks look like, which map out policies and practices in ways that signpost and prompt increasing levels of growth? What forms of cross-professional collaboration are likely to stimulate engagement?

As we turn to the concluding chapter, it is important to recall that student engagement is an inherently contextualised phenomenon that requires regular reconceptualisation, redevelopment, and redeployment. The advent of large-scale relatively open online education, for instance, creates new forms of engagement, unfurls new risks, and necessitates new forms of support. The research discussed in this book documents a scholarly international collaboration which has been effective in creating a structured scholarship in which new replications, adaptations and advances can emerge. The work has yet to yield a single 'silver bullet' that solves the engagement riddle. As this chapter has proposed, on-going work is likely along with application of the more overarching approaches discussed in this chapter.

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Chapter 11
Emerging Trends and Perspectives

Hamish Coates and Alexander C. McCormick

A Continuing Impetus for Steering Student Engagement

Contemporary work on student engagement emerged in the USA as a framework for characterising educational effectiveness in 2000 (Kuh 2001). It represented an opportunity to use process indicators to assess progress toward national goals for postsecondary education, to provide university leaders with new analytical and comparative insights into the quality of undergraduate education, and also to shift the national discourse on college quality to focus more sharply on matters of teaching and learning (McCormick et al. 2013). These developments came at a time of escalating concerns over cost and quality in US higher education, accompanied by new accountability pressures. Leaders and policy makers were searching for valid and cost-effective ways to analyse, document and improve educational effectiveness. Given the long record of research findings linking specific in-class and out-of-class activities with learning outcomes, a student survey offered promise as a way to simultaneously address several imperatives. The contributions in this book underscore the ongoing relevance of such survey data.

The system-wide international derivatives of the US survey were developed to provide valid and generalizable data on students' interactions with university resources, and hence on their learning and development. In each national context they have progressed as a vehicle for enhancing evidence-based and education-focused leadership in universities. Large-scale data collections are highly contextualised activities, and many circumstances coalesced in each case to facilitate these initiatives. Important drivers included rapid growth of university education, a paucity of data on students and their experience, growth and diversification of the student body, the use of a collaborative improvement-focused model, the deployment of

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rigorous and efficient survey methods, links with international benchmark statistics and data and reports that were easily interpretable in terms of—and responsive to—institutional contexts and change agendas. Through careful positioning and nurturing, in little more than a decade, these collections have unfolded to form the largest international set of conceptually linked, educationally focused cross-institutional surveys of students.

The rationales for such data collection are even more compelling now than when they began. Higher education systems, institutions, sectors and, increasingly, industry, are changing rapidly. In most countries, a greater share of the adult population is participating in tertiary education, and hence diversifying the student mix. The internet and cheap air travel have boosted international student and faculty flows. New institutional and educational models, and new governance structures, are spurring derivative and hybrid forms of outsourcing, co-sourcing, and economies of provision (Coates and Mahat 2014). Governments and institution leaders are framing policies and strategies to respond to these new dynamics. The expansion, diversification and digitisation of higher education are creating new challenges for understanding and promoting students' engagement in effective learning. Engaging people in tertiary education has never been more vital. With new regulatory and competitive contexts emerging, there is an urgent need to increase efficiency, grow and improve, even as the population seeking further education expands and diversifies.

As the chapters in this book illustrate, student engagement taps into the heart of education strategy, policy and practice. It links with public and governmental understanding of tertiary education quality, the management of academic standards, the use of technology to support learning, aspects of the student experience that can be publicly reported, and funding reforms. Authoritative, imaginative and practical discussion of these issues is vital for leading and managing opportunities for success.

Driving each of the chapters in this book is the underpinning conviction that higher education—institutions, governments, faculty, learners and other stakeholders—must steer student engagement with poise and dexterity over the next few years. Significant changes in policy and contextual dynamics have combined to make this more important, and more difficult, than ever. Universities are enrolling more students, which has immediate implications for engaging students, and for keeping students involved to graduation. Opening access to higher education does not just increase student numbers, it also changes the student mix. It moves from an 'elite class' to a 'whole population' system (Trow 1973), which has immediate and obvious implications for student engagement. Institutions have to consider each student's needs and shape provision accordingly.

Opening access to top-quality course materials to anyone with an internet connection is another significant shaper of imperatives around student engagement. With the exception of a few selective highly specialised or niche fields, the capacity of universities to act as gatekeepers to information is being undermined. The 'engagement experience' is becoming a more important differentiating factor in how institutions guide students' management of learning.

Online technologies—servicing just-in-time, just-for-me learning—help institutions, teachers and students manage new permutations and patterns of provision. But by 'virtualising' the higher education experience, university study further blurs with a tapestry of competing online activities and commitments. The lecture or seminar is replaced by the hand-held screen and earpiece, creating even greater challenges for understanding and leading students' engagement in effective learning.

Of course, the overall growth in student numbers affects staff/student ratios as well as sessional or contingent academic appointments. Looming retirement booms and generational change make it all the more important to understand teaching and learning for today's students. Thought must be given to new forms of teaching and managing the academic workforce. These challenges are not trivial, given the time required to train faculty and support personnel, and the need to reconceptualise the nature and patterns of academic work (Coates and Goedegebuure 2012).

Expanding, diversifying and digitising higher education carry numerous benefits, but also carry the risk that new open structures and asynchronous processes decrease interpersonal presence. The chapters in this book have asserted, particularly the role-based and general quality initiatives in the last two chapters, that the key challenge is to identify the approaches that large and complex institutions take to create the social and academic conditions that promote and maximise student learning and development.

Emerging Directions for Research-Driven Practice

The growing global interest in student engagement as an approach to assessing the quality of undergraduate education over the last decade or so provides substantial context and focus for new research and practice. Large data collections, particularly those with international scope, seed myriad derivative policies, practices and research agendas. In this section, we attempt not to catalogue or prescribe but to draw attention to potential next steps.

A characteristic feature of NSSE, and the other adaptations it has inspired, is that they reflect thoughtful and ongoing collaborations among interested researchers. Rather than relying on governmental policy or venture capital, the 'governance'—for want of a better term—of the projects is of a collegial kind. This leads naturally to the evolution of new data collections as research leaders see opportunities within different contexts. This book focuses on several system-wide collections that have taken shape over the last decade. Numerous other smaller collections have been conducted, and new system-wide collaborations are emerging, as evidenced by the work in Ireland. Notably, work is underway to seed engagement surveys in the Middle East and Southeast Asia. This growing interest shows that the basic concepts underpinning student engagement—the conceptualisations of learning processes, educational effectiveness and students' development—resonate across national contexts and institution types. This highlights general interest in looking beyond throughput and satisfaction metrics, international rankings and research activity.

It reinforces prospects for producing more cross-institutional, cross-national and perhaps even 'international' benchmarks and insights into how tertiary students are participating in and served by higher education.

This book charts how the 'devolved collaborative approach' (Coates and Mahat 2013) to higher education research and data collection offers a robust and contextualised model for stimulating cross-national inquiry. A plethora of national and international rankings have sprouted over the last decade. These tend to negate or dampen the importance of context-specific factors by imposing highly general metrics that can be compared globally. In contrast, the chapters in this volume have revealed the highly contextualised way in which each collection has been adapted to national contexts while retaining fidelity to core conceptual and technical aspects of the model developed in the USA. There is no 'international version' of the student engagement collection, but rather a series of contextually developed derivatives that support within-system and cross-national referencing. This approach signals an important middle ground for the growing field of data-informed international higher education quality research. It has important implications for building rigorous and lasting data collections, and for building domestic research and development within broader international contexts.

While such research-based collaboration does not arouse the same media frenzy as international rankings, the collaborative and contextualised approach has a powerful capacity to shape higher education. As portended in the above remarks, the relevance of student engagement data to broader quality assurance work continues to grow in many regions and systems. In South Africa, for instance, the debate about what constitutes a leading university is related to specific performance indicators, and the main indicator for teaching and learning remains student success measures. This goes directly to students' engagement in effective educational practices. In Australia, with a liberalising, expanding and diversifying system, student engagement metrics have been woven into national and institutional policy, particularly initiatives related to monitoring, funding and quality improvement. For around half of its life, NSSE results have been reported publicly through various media- and stakeholder-driven transparency and benchmarking websites. The need to benchmark institutional practice by reference to appropriate standards of provision continues to grow, in part because of the opportunities seeded through the NSSE-related surveys, but also because those opportunities resonate so deeply with those most concerned with student learning and development—academic leaders, instructors and those concerned with the professional development of instructional staff.

These developments underline the power of the conceptual architecture underpinning the collection of data on student engagement. It is important that concepts and their consequent measures change with the phenomenon itself, and also these changes stay a formative step ahead of prevailing practice. As outlined in the first chapter, this book rests upon a strong conceptual foundation of student engagement that, while evidently stable across contexts, also provides a foundation for growth. This has occurred in each national implementation through the addition and adaptation of questionnaire items and item clusters. The Australia and New Zealand collections, for instance, have increased focus on work-integrated learning, attrition and online and blended education.

Development of the second-generation NSSE (McCormick et al. 2013) is the most notable renewal of the conceptual perspective and potential impact. The revised NSSE instrument sustains its strong behavioural focus emphasising diagnostic and actionable facets of effective educational practice supported by a decade-deep empirical foundation. At the same time, the update sustained the survey's currency by eliminating outdated language (primarily related to technology), modifying existing language to be more clearly independent of the mode of delivery (in-person or online) and introducing new content informed by contemporary educational imperatives (for example, learning strategies and quantitative reasoning). The changes were also informed by more than a decade's experience analysing NSSE data and consulting with institutional users, as well as new findings related to effective educational practice (for example, compelling evidence about effective teaching practices from the Wabash National Study of Liberal Arts Education—see: McCormick et al. 2013).

Student engagement surveys necessarily favour breadth of coverage—assessing a wide array of educationally purposeful activities—over in-depth treatment of one or two narrowly defined topics. The updated NSSE survey introduced a set of optional topical modules, permitting participating institutions to 'drill down' in one or two areas of special interest or priority. In many cases these modules were developed in collaboration with external experts, taking full advantage of current thinking on subjects such as experiences with writing, civic engagement and learning with technology. This typifies the research-based collaborative development model represented throughout the present volume.

Concrete Next Steps

This book is intended to provide more than an illuminating overview of a suite of networked data collections. It has offered windows into how a growing number of researchers, institutional personnel, students, policymakers and other stakeholders are building knowledge on students' learning, and using this to monitor and improve practice. The contribution is intended to be intellectual and educational, rather than political, technical or operational. Our hope is that it represents the first in a series of books that bring together international perspectives on student engagement, and project these in ways to guide the improvement of higher education. Interesting as such activity may be, it comes too little without sound ideas, plans and resources for implementing effective change. By way of conclusion, then, we review a series of concrete next steps for students, faculty, institutions, ministries and researchers concerned with assessing and improving the quality of undergraduate education through the lens of effective practice.

While students are indirect participants in the research process, they lie at the heart of 'doing engagement better'. Simplistically put, students must learn how to do higher education in ways likely to promote high-quality outcomes. Optimising the conditions for engagement and success is an important institutional responsibili-

ty, but ultimately it is learners themselves—via various meta-engagement strategies like seeking, accepting and following advice; taking advantage of learner support services; reading guides and asking peers—who need to get involved. Institutions should make such learning 'unavoidable' because, as Kay McClenney—who directs yet another instance of the spread of these ideas, the US-based Center for Community College Student Engagement—puts it, 'Students don't do optional'. Students should also be expected and encouraged to engage at higher levels by participating in the various formal and informal architectures that shape engagement like governing and representative bodies, and various quality assurance structures. Certain countries, like the UK, have moved on this broader front more than others. Promoting engagement *to* students is frontline in higher education.

Faculty are, of course, the primary change-agents in student engagement. Supplementary support structures have grown along with systems and institutions, but ultimately it is the intellectual support and stimulation that faculty provide that promotes student success. This is not the place for a normative discussion of effective teaching and the challenges of inducing those whose careers depend largely on research productivity to invest more effort and energy in teaching. But faculty do care about their students' learning, and there are some concrete next steps that faculty and their leaders can take, including:

- Interacting regularly with students through formal and—even better—informal ways;
- Developing basic awareness of students by reviewing demographics and looking more broadly at data on cohort trends;
- Teaching in challenging and supportive ways that go beyond imparting information, communicate high expectations and develop creative and highly skilled 'knowledge workers'; and
- Participating frequently and earnestly in conversations with colleagues about teaching better.

Like many other aspects of the post-secondary experience, student engagement varies far more among students within an institution than it varies between institutions. Despite the powerful appeal of focusing exclusively on differences between institutions—reinforced by rankings, contemporary policy discourse and institutions' own narratives of uniqueness—this within-institution variability represents the low-hanging fruit for advancing student engagement research. We know that patterns of engagement vary with major fields of study, and recent typological investigations have shown that distinctive patterns of engagement exist on campuses, and that these patterns correspond to differences in educational outcomes (Hu and McCormick 2012). Understanding how student engagement operates among diverse populations is vital to the future of higher education and wider society. Kinzie and Pennipede (2009) offer an excellent and succinct summary of next steps at the institutional level. They recommend six approaches for turning engagement results into action:

- Finding relevancy and enticing with results;
- Continuously disseminating data in small doses;

- Appointing student engagement ambassadors;
- Connecting student engagement results to the study of real campus problems;
- Infusing data into continuous improvement processes; and
- Digging deeper into results.

Monitoring and improving student engagement is an urgent imperative for policy-makers. This book focuses on developed higher education systems which have a primary emphasis on quality. However, retention matters as much, if not more, in emerging systems. Challenges vary across jurisdictions, as do the instruments and degrees of separation that ministries and associated agencies have with students' learning. Experience to date highlights a range of ways in which governments seek to steer student engagement including performance or recurrent funding, accreditation, regulation and awards. Through such mechanisms it could be suggested that, in general, system-level agencies need to:

- Encourage institutions to collect student engagement data, without punishing disappointing results;
- Support institutions to address shortcomings;
- Monitor patterns and trends in results; and
- Reward and leverage successful improvement initiatives.

Student engagement presents myriad opportunities and also challenges for researchers. The large volumes of data produced by survey work are typically under-analysed, opening space for creative intellectual work. For instance, this book has not even contended with any serious empirical practice on cross-system data analysis. Another challenge for analysts is to interpret variation in students' engagement. Most statistical analyses explain only relatively small amounts of the observed variation, raising questions of what contextual factors, and related educational levers, should be used for improvement. With fundamentally new forms of hybrid higher education emerging—online and otherwise—researchers face unfolding, and exciting, work to examine not just how students engage, but the identity and expectations of students. Much of the research on which the initial US initiative was based relied on full-time, traditional college-aged, predominantly white, male, American students attending residential institutions. The NSSE-derivatives analysed in this book provide an international platform for expanding and diversifying this work and its impact.

This book has evolved collegially over 4 years but its successor is unlikely to take so long. The pressing need to improve student engagement, and the number of people involved in its advancement, grows with realisation of its significance. The scale and efficiency of data collections are growing, with these increasingly woven into system-wide policies. Thus, this book seeks to prompt a series of follow-up texts. While these will be driven by a shared conviction that student learning matters, and that the conceptual perspective detailed in the first chapter offers a fruitful and generative perspective on the conditions that promote learning, they will also be formed through the interest and commitment of researchers. These volumes and the change they capture and seek to spur will, by design, chart new perspectives on and imperatives for students' engagement in higher education.

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Erratum
Engaging University Students

International Insights from System-Wide Studies

Hamish Coates, Alexander C. McCormick

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The Publisher regrets that in the online version of this book the Contributors Section and the chapters 4, 9 and 10 reflects incorrect address (city names) for the authors Chris Conway and Alexandra Radloff. The correct city names are Kingston (for Chris Conway) and Camberwell (for Alexandra Radloff).

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