

Theorising research on approaches to teaching in higher education

Peter Kandlbinder

Institute for Interactive Media & Learning, University of Technology Sydney Australia

Abstract

Theorising can best be understood as a practical art. It is embodied in the concrete activities of academic publishing that requires researchers to familiarise themselves with the literature in the field before submitting articles for review. Even researchers with a significant body of work tend to be cited for one publication and that publication is largely used to discuss a single concept. This paper reviews the development of two signature concepts by two highly respected researchers in the field to familiarise potential higher education researchers with some of the approaches to theorising used in higher education research. A detailed analysis of the narrative that surrounds these signature concepts provides two short case studies in what successful researchers do when formulating their ideas. The paper concludes with an overview of strategies researchers might consider incorporating into their own research repertoires when explaining the outcomes of their research into higher education teaching and learning.

Introduction

Theory inhabits an uncertain position in higher education teaching and learning. As a field of study education is largely comprised of practitioners and it is generally assumed that practitioners will benefit from some knowledge of the underlying concepts that influence what they are doing. Education research studies are expected to include some process of abstraction from everyday teaching and learning experiences to produce a range of outcomes, such as rules of inference, models, system, schemes, ideas, principles, concepts, or beliefs (Egbert and Sanden, 2014). This makes theorizing a practice closely aligned with learning. Theory is created through an intensive and systematic scrutiny of some body of data (Curtis, Murphy & Sheilds, 2014). Once theorising is completed, the process for developing the explanations of the data recedes into the background so that it is possible to share its outcomes in a way that requires no further thinking. It is then expected that practitioners will recontextualise theory through its application in their particular teaching and learning situations.

The traditions of higher education research are worth studying because they are the site of successful theorisation. Moreover, higher education teachers are more likely to have had personal experiences of theory-building through their own research. They would be well aware of the need for authors to familiarize themselves with the literature in the field before submitting articles to peer-reviewed journals. This practice of requiring authors of journal articles to conform to the rules of the field provides a useful mechanism for identifying successful strategies for theorising.

Firstly, it needs to be acknowledged that we are always talking about more than one field in higher education. For example, Tight (2007) found significant differences between North American literature and the higher education research results reported in English speaking literature elsewhere. In particular, North American research articles were dominated by North American-based authors who research the student experience of college through the analysis of large-scale quantitative databases. This is compared to the non-North American higher education literature which tends to prefer qualitative critical approaches that address questions of course design (Tight, 2007 p. 250). The distinctiveness of the two research communities was confirmed by Haggis (2009) who reviewed the titles of articles in the same higher education journals nominated by Tight. She found that the themes addressed in article titles changed over time with the North American literature titles increasingly concentrating on issues of persistence, withdrawal and retention while non-North American journals shifted from a focus on building a knowledge base about student learning in the 1970s to more critical perspectives in the 1980s and shifted again in the 1990s to a greater interest in classroom practice.

In my own comparison of the North American and non-North American higher education literature (Kandlbinder, in press) it was clear that neither field refers to the same signature concepts as their counterparts. The North American literature focussed on what kept students in college, especially peer interaction, student involvement and student-faculty interaction. By contrast, the non-North American authors were more concerned with understanding why students behave in certain ways than testing a dependent variable like student persistence against factors leading to that variable. On the few occasions when authors in the North American literature did discuss non-North American signature concepts they tend to use different publications to discuss the motivational constructs that predict student success. Moreover, when North American authors cite non-North American authors who have developed individual signature concepts, they tend not to refer to those concepts. Conversely, non-North American authors are only slightly more likely to cite research from a different higher education field than their North American counterparts.

Despite these differences there is one area of conceptual overlap between the two fields. Authors in the seven main journals on higher education teaching and learning all explored questions of approaches to teaching, although again from different conceptual bases when referring to the North American or non-North American literature. The aim of this paper is to analysis the pathways into the signature concepts specific to these two fields to learn from successful theorising strategies used in the North American and non-North American higher education literature. A detailed analysis of the narrative that surrounds these signature concepts will provide two short case studies that describe what successful researchers do when formulating their ideas. This paper uses these case studies to provide guidance for potential researchers in higher education seeking to understand which approaches to theorising are compatible with higher education research traditions. It concludes with an overview of, as well as recommendations for, researchers who seek to incorporate these techniques into their own research repertoires.

Method

An analysis of signature concepts shows that authors in journals of higher education are more likely turn to thirteen researchers when discussing matters of teaching and learning (Kandlbinder, 2013; Kandlbinder, in press). Each of these researchers has produced a

significant body of work but is on average cited for one publication and that publication was largely used to discuss a single concept. This can be considered their 'signature' concept as this concept is more likely to be associated with that particular researcher even where a larger group of researchers discuss the same concept. Across the field there are a number of different researchers attributed with contributing concepts that are commonly associated with the field as a whole. In the case of approaches to teaching there are two researchers associated with this concept in the North American literature (Tierney and Kuhn) and three researchers (Trigwell, Prosser & Ramsden) in the non-North American field.

Having identified the researchers most associated with approaches to teaching research in higher education I will examine the successful strategies for theorizing adopted by the two most referenced researchers— William Tierney and Keith Trigwell. Tierney is the researcher in three North American journals of higher education teaching and learning who is most closely associated with the process of faculty socialization that takes place when new faculty join a department and orient them to its organizational beliefs and attitudes (Kandlbinder, in press). Keith Trigwell was the most referenced researcher in four non-North American journals of higher education teaching and learning for the signature concept that teachers' approaches to teaching impact on different student approaches to learning (Kandlbinder, 2013).

Presented below are two short biographical studies of the explanations offered by these researchers in the publications that account for half of their references cited in the most prestigious journals in their field. These case studies are developed using the Gruber & Wallace (1999) suggestion of analysing the interactive relationship between individuals and the context in which they work. The description of this relationship comes from the introduction to their research articles or chapters in books in which they attempt to position their research within the field as they explain the intentions behind their research programs. This tendency was identified by Swales (2004) who found that authors liked to stress the importance of the research reported in their study, followed by claims to novelty of what was described as they indicate the gap or the addition that they have made to what is known. Over time the convention of explaining the development of an idea creates a narrative around a signature concept, which I set out below for the publications that make up the majority of the two researcher's references. Each summary is presented in the sequence in which the contributing articles were written to highlight the evolving pattern of interrelationships of theorisation as the researchers interacted with the wider research field.

Findings

These case studies represent two distinctive paths of theorisation towards the researcher's signature concept (Figure 1). In Tierney's case it took six publications from his body of work to account for half of his references in the literature, with his signature concept accounting for a significantly higher percentage of his references than any of the five other publications. Over the sample period his pathway describes a declining reputation with the two publications that investigate aspects of faculty tenure having a higher citation rate above this overall declining trend. By comparison Trigwell has a growing reputation for his ideas that conceptions held by teachers influences their approach to learning, with the consequence that the path to his signature concept is shorter and more even when compare to that of Tierney (Figure 1).

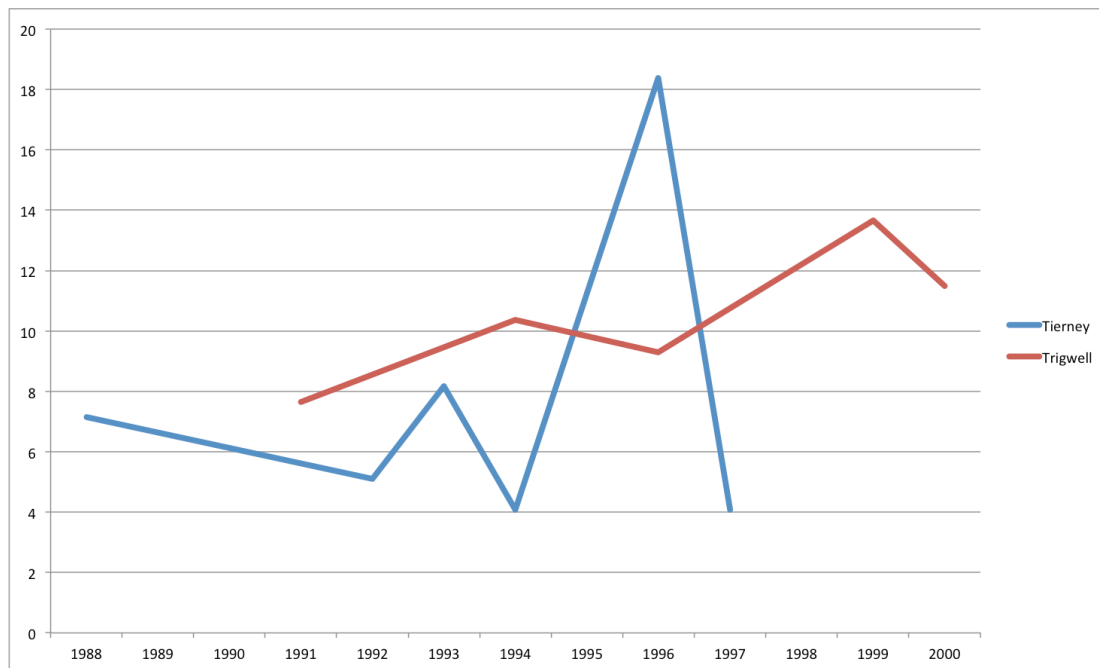


Figure 1. Percentage of references in higher education journals to publications by William Tierney and Keith Trigwell.

William Tierney

William Tierney is rarely cited for his work on faculty socialisation in the non-North American literature. Tierney (1988) identified studies of organizational culture as a useful concept for understanding management and performance in higher education. However, he was concerned that the varying definitions, research methods, and standards for understanding culture created confusion among administrators. To address this problem Tierney provided a framework to diagnose culture in colleges and universities with the aim of pointing out how administrators might utilise the concept of culture to solve specific administrative problems. The provisional framework was intended to lend the concept of culture some definitional rigor so that practitioners can analyse their own cultures and ultimately improve the performance of their organisations and systems.

In his next publication Tierney (1992) took issue with some of the most commonly held perceptions about students, college life and what was thought about cultural difference in order to develop more culturally responsive ways to engage minority students. In particular, Tierney argued that Tinto has misinterpreted the anthropological notions of ritual when he described college participation as a "rite of passage" in which academic and social integration was seen as essential for student persistence. Tierney saw this as having potentially harmful consequences for racial and ethnic minorities and suggests an alternative model to conceive of universities as multicultural entities where difference is highlighted and celebrated.

Tierney (1993) identified a number of problems facing American higher education that had lead to a decline in public confidence in American higher education. Solutions to the problems seem elusive with Faculty claiming that the system of promotion and tenure placed unfair demands on individuals and rewards meaningless activities like trivial committee work. Tierney argued that the central problems that face academe are moral ones and he used ethnographic case studies to highlight some of the struggles that confronted different

institutions. He tried to unite the theoretical movements of postmodernism and critical theory as an analytical framework for action by offering a different way of discussing the concepts of difference, identity, and community.

In Tierney and Rhoads (1994), the authors returned to questions of colleges and universities being social institutions, each with a unique organizational culture. The social constructions are formalized in structures such as policies, rules, and decision-making. According to Tierney and Rhoads the role that faculty play in the formal and informal life of the institution is key to understanding academic communities as cultures. They focus on the faculty socialization of new faculty and their challenge was to define socialization as "bidirectional" in which the process produces change in individuals as well as organizations not just how individuals fit within a particular organization.

Tierney and Bensimon (1996) undertook a two year project to describe the experience of promotion and tenure through the eyes of academic staff. They conducted more than 300 interviews with faculty at twelve colleges and universities finding the experiences, frustrations, and challenges of faculty members are often remarkably similar. They portray the professional life of junior faculty as evidence that academe is in need of dramatic restructuring. As a result they argue that common negative experiences are indications that the system is in need of change. Some faculty feel isolated, and others never learn the rules of the game. Administrators often want to hide bad news and others do not want to believe stories about academic lives that document overwork and stress for women and faculty of colour. Their theoretical framework offers culturally based solutions to the problems of promotion and tenure, offering specific recommendations on how institutional leaders can improve the probationary period to accommodate diversity and create a climate for organizational change.

Tierney (1997) focussed on affirmative action in postsecondary education where he argues there is a lack of understanding of the historical precedents that helped create the policy. He wanted to convince academic communities to hold firm to their commitment to the basic principles surrounding affirmative action and sketched a coherent theory of what is meant by affirmative action and merit in public postsecondary education.

Keith Trigwell

Keith Trigwell writes exclusively in the non-North American literature and is associated with the idea that conceptions of teaching influence teaching strategies. This concept developed from a long-standing association with Michael Prosser and their commitment to phenomenography as a method of research. Trigwell and Prosser (1991) identified the Gothenburg group as showing that different approaches to learning are related to qualitative differences in outcomes. This student learning research focussed on various aspects of the relationship between students' perceptions of their academic environments, their approaches to learning and their learning outcomes. Trigwell and Prosser applied a quantitative approach to show a similar relationship existed at the whole class level confirming that students' perceptions of that environment related to their approaches to study. They collected data which related students' evaluation of their learning environment, their approach to learning and both quantitative and qualitative differences in student learning outcomes confirming the validity of student ratings of teaching and courses. This led to the design of a second study that focussed on the students' perceptions of their learning environment and how those perceptions are related to approaches to learning and the quality of the learning outcome.

Trigwell, Prosser and Taylor (1994) conducted the first step in an investigation into the relationship between the teachers' approaches to teaching and students' approaches to learning. They wanted to focus on the intentions or motives of the teachers, as they believed the intentions and strategies of lecturers need to be understood before substantial improvements in approaches to teaching can be expected. They looked at the teacher's experience of teaching by extending the study of student learning which they argued was a "second order" perspective because the way teachers think about teaching cannot be observed.

Trigwell and Prosser (1996) studied the relations in teaching between teachers' conceptions of teaching and approaches to teaching as the kind of study that can greatly enhance our understanding of ways of improving teaching. They argued that it builds on the research on student learning that showed the importance of shifting the focus from learning approaches to learning conceptions in developing and improving the outcomes of student learning. Their results confirmed the relationship between intention and strategy, and showed that a student-focused strategy was associated with a conceptual change intention, while a teacher-focused strategy was associated with an information transfer intention.

Trigwell, Prosser & Waterhouse (1999) revealed links between the ways teachers approach teaching and the ways their students approach their learning. It builds on studies in the seventies reported different approaches to student learning some of which are related to higher quality learning outcomes. Previous studies relating high quality teaching to student learning outcomes had largely been based on students' perceptions of the quality of teaching. They applied the five qualitatively different approaches to teaching to quantitatively explore the extent to which an information transmission and teacher-focused approaches to teaching are associated with a surface approach to learning. They sought to determine whether one approach to teaching by an individual teacher is associated more with one or other approach to learning among the majority of his or her students.

Trigwell, Martin, Benjamin and Prosser (2000) acknowledge that the quality of teaching and learning in universities has received close attention over the past 15 years without determining the sort of teaching that encourages effective learning. They turned instead to a more recent agenda that focused on teaching as scholarship with a core interest of determining how academic staff think about and make sense of the idea of scholarship of teaching. They present an analysis of the literature that shows that scholarship exists in all aspects of our academic work. They discovered an enormous variation in the ways scholarship of teaching is represented. They then conducted an empirical study which aimed to establish how scholarship of teaching is understood by a sample of academic staff in one Australian university which helped them describe a set of categories that precisely constituted the most distinctive characteristics of teaching as scholarship.

Discussion

William Tierney and Keith Trigwell are two examples among many successful theorists of higher education teaching and learning. The cluster of publications analysed here are not the only articles or book chapters they will have published during this time period. They are simply the publications selected by authors of higher education teaching and learning as creating useful knowledge through innovative researching approaches that discovered something worth explaining. Both researchers arrived at their explanations by adapting a conceptual idea that had been successfully applied in another field and transferred it to answer

questions about higher education teaching. They began with the current research on students and student learning and the outcomes of their earlier studies steered them toward answering questions on the influence teachers have on learning.

The differences in their approaches to theorisation can be explained by the inductive or deductive logic the researcher applied to understanding their foundational concepts. William Tierney theorised inductively by constantly crossing diverse disciplinary boundaries and fashioned new connections and insights out of a variety of theoretical discourses that surrounded universities as sites of cultural studies. Hints to his later work could be found in earlier articles as Tierney attempted to understand that universities are just another social institution. It was this insight that allowed him to apply a successful framework of organisational culture to develop alternative theories and strategies for implementing change in colleges and universities. Bringing in concepts from a distant field required questioning current perceptions of culture in these institutions and then conducting ethnographic case studies to highlight some of the struggles that confronted different institutions. Tierney found that each university had a unique organizational culture which influenced the interconnections between difference, power, and ethics, although there are some sector wide challenges such as the erosion of support for affirmative action.

Keith Trigwell, by comparison, followed a deductive line of reasoning that went from the general to the specific by largely repeating the same study under slightly different circumstances. This added small additional pieces to a chain of inferences about the influence of teaching on student learning. The development of his signature concept that teachers' approaches to teaching impact on different approaches to learning began with a review of previous research that showed perceptions of learning environment impacted on student approaches to learning. He took this idea that conceptions of learning affecting outcomes by influencing the way a learner goes about a task and demonstrated that conceptions of teaching also related to teaching strategies in much the same way. This established a link between how teachers approach their teaching and the ways their students approached their learning but not the resulting learning outcomes.

Practical implications

Few higher education educators possess more than rudimentary knowledge of the main assumptions, methodologies and theory building strategies of higher education research. This is particularly the case in the sub-field of teaching and learning where a large proportion of research comes from occasional researchers mainly investigating their own practices as teachers (Kandlbinder, 2012). Consequently, new researchers in higher education come from a range of disciplines with different research traditions and as such their prior training can leave them ill-equipped to deal with the multifaceted issues of knowledge production in higher education (Kandlbinder & Peseta, 2009).

The part-time nature of higher education research is particularly challenging when it comes to higher education researchers building powerful explanations of teaching and learning in higher education. The reliance on part-time researchers means they rely on methods and methodologies from their home disciplines when they undertake research in teaching and learning, even though not all of these research traditions are suitable for higher education. For example, whereas double blind studies are considered the gold standard of the medical research can be unethical in an educational setting. To be proficient in thinking about higher

education requires learning about the traditions of the field, as well as how to use these traditions to think educationally about questions in higher education.

The exact process of theorising will always depend on the kinds of theories that are being developed. For some the focus is on grand theory— those highly abstracted forms of theorizing that attempt to create a unifying system that explains everything (Mills, 1959). The two case studies presented here illustrate the different nature of theorising on approaches to teaching in higher education. Firstly it has a more modest aim that the outcomes of the research may lead the researcher to find new and interesting data or explanations. Both inductive and deductive modes of reasoning proved to be equally successful methods of theorisation in this regard. Secondly, both case studies contain the idea that the researcher's signature concept may provide the means of achieving educational change. It is expected that higher education research will benefit practitioners and the call for change was a strong justification for the research in both the North American and non-North American fields. The importance of assessing knowledge in terms of its practical use lead the researchers to apply well established theoretical frameworks from one field to a new area of higher education teaching and learning.

Finally, the case studies showed that theorising is strongly aligned to learning. Descriptions of theory have tended to focus on the outcomes of what have been discovered rather than the process of discovery. This has lead to a received view of research that associates theory and knowledge as something that is given rather than knowledge that is problematic (Polkinghorne, 1983). If theory is simply something to be sprouted by experts then it is destined to be largely irrelevant to the practice of education. For theory to become truly useful to educational practitioner will require them to become more involved in their own research project in which they can experience the creative process of theorisation first hand.

References

- Curtis, W. Murphy, M. & Shields, S. (2013). *Research and education*. Milton Park, Abingdon, Oxon : Routledge.
- Egbert, J.& Sanden, S. (2014). *Foundations of education research: Understanding theoretical components*. New York: Routledge.
- Gruber, H. E., & Wallace, D. B. (1999). The case study method and evolving systems approach for understanding creative people at work. In R. J. Stenberg (Ed.), *Handbook on creativity* (pp. 93_115). Cambridge: Cambridge University Press
- Haggis, T. (2009). Student Learning Research: A Broader View. In M. Tight, K. H. Mok, J. Huisman & C.C. Morphew (eds.). *The Routledge International Handbook of Higher Education* (pp. 23-35) London: Routledge.
- Kandlbinder, P. (2012). Recognition and influence: The evolution of higher education research and development. *Higher Education Research and Development*, 31(1), 5_13.
- Kandlbinder, P. (2013). Signature concepts of key researchers in higher education teaching and learning. *Teaching in Higher Education*, 18(1), 1_12.
- Kandlbinder, P. (in press). Signature concepts of key researchers in North American higher education teaching and learning. *Higher Education*.
- Kandlbinder, P. & Peseta, T. (2009). Key Concepts in Graduate Certificates in higher education teaching and learning in Australasia and the UK. *International Journal for Academic Development*, 14(1), 19-31.
- Mills, C.W. (1959). *The sociological imagination*. Oxford: Oxford University Press.

- Polkinghorne, D. (1983). *Methodology for the human sciences: Systems of inquiry*. Albany: State University of New York Press.
- Swales, J. M. (2004). *Research genres: Explorations and applications*. Cambridge: Cambridge University Press.
- Tierney, W. G. (1992). An anthropological analysis of student participation in college. *Journal of Higher Education*, 63, 603-618.
- Tierney, W. G. (1993). *Building communities of difference: Higher education in the twenty-first century*. Westport, CT: Bergin & Garvey.
- Tierney, W. G. (1997). The parameters of affirmative action: Equity and excellence in the academy. *Review of Educational Research*, 67(2), 165-196.
- Tierney, W. G., & Bensimon, E. M. (1996). *Promotion and tenure: Community and socialization in academe*. New York: SUNY Press.
- Tierney, W. G., & Rhoads, R. A. (1994). Faculty socialization as cultural process: A mirror of institutional commitment. ASHE-ERIC Higher Education Report No. 93-6. Washington DC: The George Washington University, School of Education and Human Development.
- Tierney, W. G. (1988). Organizational culture in higher education. *Journal of Higher Education*, 59(1): 2-21.
- Tight, M. (2007). Bridging the Divide: A comparative analysis of articles in higher education journals published inside and outside North America. *Higher Education* 53, 235–253.
- Trigwell, K. & Prosser M. (1991) Improving the quality of student learning: the influence of learning context and student learning on learning outcomes *Higher Education*, 22, 251-266
- Trigwell, K. and Prosser M. and Taylor P. (1994) Qualitative difference in approaches to teaching first year science *Higher Education* 27, 75 - 84.
- Trigwell, K. Prosser P. (1996). Changing approaches to teaching: a relational perspective *Studies in Higher Education*, 21, 275-284
- Trigwell, K., Martin, E., Benjamin, J., Prosser, M. (2000) Scholarship of teaching: A model *Higher Education Research and Development* 19, 155-168 .
- Trigwell, K., Prosser, M., & Waterhouse, F. (1999) Relations between teachers' approaches to teaching and students' approaches to learning. *Higher Education*, 37, 57-70.