

Interrogating Learner-Centredness as a Vehicle for Meaning Emerging in Practice and Researching Personal Pedagogies: Transformative Learning, Self-efficacy and Social Presence at Two Australian Universities

Patrick Alan Danaher, Faculty of Education, University of Southern Queensland,
Australia (danaher@usq.edu.au)

Geoff Danaher, Division of Teaching and Learning Services, Central Queensland
University, Australia (g.danaher@cqu.edu.au)

Beverley Moriarty, Faculty of Arts, Humanities and Education, Central Queensland
University, Australia (b.moriarty@cqu.edu.au)

This article has been anonymously peer-reviewed and accepted for publication in the *International Journal of Pedagogies and Learning*, an international, peer-reviewed journal that focuses on issues and trends in pedagogies and learning in national and international contexts. ISSN 1833-4105.
© Copyright of articles is retained by authors. As this is an open access journal, articles are free to use, with proper attribution, in educational and other non-commercial settings.

Abstract

Learner-centredness is a key element of the contemporary dominant discourse pertaining to pedagogies and learning. Yet enacting learner-centredness is far from easy in the increasingly massified higher education system. The authors contend that it is in the intersection between this philosophy and practice that meaning emerges and personal pedagogies can be researched.

This paper deploys the authors' experiences as higher educators covering a diversity of disciplines, encompassing pre-undergraduate, undergraduate and postgraduate domestic and international students and including face-to-face, distance and online delivery modes in two Australian universities. Learner-centredness is interrogated in relation to three key sites:

- exploring transformative learning with previously educationally marginalised pre-undergraduate students in face-to-face and external modes
- enhancing self-efficacy with face-to-face undergraduate teacher education students in relation to their mathematical competence
- experiencing social presence with online postgraduate students learning about educational research methods and ethics.

The paper reports examples from each site where learner-centredness is successfully engaged and hence where the meaning emerging in practice is fulfilling and productive. At the same time, interpersonal and structural factors sometimes obstruct the attainment of such positive outcomes. These findings have important implications for the authors' ongoing research into their personal pedagogies as well as for policy and practice in contemporary higher education more broadly.

Introduction

We begin this paper with some pointed questions. Is learner-centredness anything more than a lofty aspiration or a rhetorical device in contemporary university learning and teaching? To what extent, and in what ways, does meaning emerge in the practice enacted in university courses and programs? Which pedagogical strategies have

proved effective in assisting learner-centredness to generate productive and sustainable meaning-making by learners and educators alike? How does addressing these and related questions link with a commitment to, and the outcomes of, the ongoing process of researching personal pedagogies?

In interrogating this hoped for connection between learner-centredness on the one hand and the emergence of meaning in practice and researching personal pedagogies on the other, the authors draw on their separate and shared experiences, each exceeding 15 years, as educators in two Australian universities working across a range of disciplines, levels and modes. For ease of analysis, each author has focused on a single selected concept commonly associated with learner-centredness and examines that concept through its relationship with a particular group of students working with a specific mode of educational provision. Thus the interrogation of learner-centredness is conducted in relation to:

- exploring transformative learning with previously educationally marginalised pre-undergraduate students in face-to-face and external modes
- enhancing self-efficacy with face-to-face undergraduate teacher education students in relation to their mathematical competence
- experiencing social presence with online postgraduate students learning about educational research methods and ethics.

These three lenses bring together different sets of concepts, research methods and data analysis under the single banner of learner-centredness. We realise that focusing on these three sites could be disjointed. Nevertheless the intention is to examine learner-centredness from three different perspectives in three different contexts. This provides readers with the opportunity to see how the phenomenon of learner-centredness is constructed and experienced in a variety of ways, and perhaps in ways that are different from their own. This opportunity also highlights the necessity of educators and researchers engaging in ongoing critical reflective practice and of continuing to contest the taken-for-granted assumptions of our profession.

Literature Review

Learner-centredness was the focus of an international conference on improving university teaching in 2001, signalling the recognition of the scholarly dimension of the learning experience. This focus emerges within the context of different forces shaping the global higher education environment today. The idea of massification, whereby universities are charged with accommodating the educational aspirations of the great mass of society rather than a privileged few, means that higher education institutions can no longer assume that students bring with them a familiarity with, and an acceptance of, the values that have traditionally underpinned what might be called, in Bourdieu's (1990) terms, the academic habitus: that is, a commitment to the autonomous value of education as a good in itself and a faith in the university as a civilising institution. And the increasing significance attributed to the role of lifelong learning indicates that the student experience is no longer the preserve of a particular age cohort. Furthermore, the globalisation of the higher education market means that universities are increasingly required to meet the needs of students from diverse cultural and linguistic backgrounds. Simultaneously, scholars such as McInnis (2001) have commented on the changed patterns of student engagement with the university experience, which increasingly has to compete with other life commitments such as work, family and social engagements. Thus learner-centredness is framed within a

focus on both the particular needs of individual learners and their cultural background and values.

Transformative learning can be framed as an outcome of, and a rationale for, a learner-centred approach to university study. For Cranton (1994, p. 4), transformative learning occurs when, “through critical self-reflection, an individual revises old or develops new assumptions, beliefs or ways of seeing the world”. Thus, critical self-reflection is framed as a process through which educators can facilitate strategies for transformative learning. Similarly, Eisen (2001, p. 405) views reflection as a means through which a convergence of learning process and product can be realised in the form of an effective, independent learner who can manage everyday affairs and operate informedly and productively in society. At the same time, reporting “fundamental changes in preconceived ideas, beliefs, habits, or assumptions” (p. 335) as evidence of learner transformation in an online class, Boyer, Maher and Kirkman (2006) also noted that “The instructor role was found to be a vital component in the facilitation of transformative learning” (p. 335). Self-reflection, then, is a process through which the individual and cultural values of a learner-centred approach can be channelled into a journey of transformation.

As with self-reflection and its possibilities for transformation, the extent to which students perceive that they will be successful, or their self-efficacy, depends largely on how well they believe that they performed in the past (Bandura, 1986). Self-efficacy can therefore be raised when students experience success, provided that they believe that they have been successful. A learner-centred approach places less emphasis on competition and social comparative information, which inevitably has its losers, and is more consistent with a context in which one’s success or feeling of success is not dependent on others performing less well (Moriarty, Douglas, Punch & Hattie, 1995). Students who have high levels of self-efficacy, in Bandura’s terms, are more likely to believe that effort will lead to success. This fundamental proposition conveyed in Bandura’s early, seminal work is still a key motivator in research on self-efficacy to the present day across a wide range of discipline areas (Eachus & Cassidy, 2006; Siwatu, 2007). Learner-centred approaches to increasing initial teacher education students’ levels of self-efficacy and competence in mathematical problem-solving might emphasise students’ areas of strength and provide interventions or circumstances and choices that facilitate improvements on an individual rather than a comparative basis. From the results of current research into student motivation and self-efficacy (Sungur, 2007), it might be anticipated that learner-centred approaches that encourage individual students to control which interventions they access may be the most effective in raising levels of self-efficacy and achievement.

Online education creates particular challenges and opportunities for practising and promoting learner-centredness. In addition to transformative learning and self-efficacy, social presence is worthy of consideration as a potential vehicle for enacting learner-centred approaches to learning and teaching in online environments. After all, presence “evokes the engagement and interaction assumed to lie at the centre of the learner–educator relationship”, and presence “also betokens the empathy, encouragement, interest, and support and the emotional dimension of being human on which that relationship is presumed to be based” (Danaher, Hickey, Brown & Conway, 2007, p. 221). Likewise Snyder (2007) identified “the presence of

technology” (pp. 5, 10) as a pervasive element of what she called “the digital culture” (p. 1), posited on the effective integration of the four components of technology, pedagogy, communication and organisational systems (p. 1). More particularly, Anderson (2004, p. 274) contended that social presence – which he juxtaposed with the equally significant cognitive and teaching presence – “relates to the establishment of a supportive environment such that students feel the necessary degree of comfort and safety to expressed their ideas in a collaborative context”. At the same time, it is important to recall that online education is not automatically or necessarily learner-centred or based on positive social presence; that outcome has to be carefully planned, designed and implemented.

Research Design

The preceding necessarily focused and circumscribed literature review examined specific links between accounts of learner-centred education and each of the three selected concepts of transformative learning, self-efficacy and social presence that informed the studies reported here. The transformative learning and social presence studies were qualitative in approach and the self-efficacy study was quantitative, using scales developed specifically for the MITES study, of which this report relates to one stage.

Transformative learning

In the preparatory program at Central Queensland University directed at adult learners seeking to access undergraduate studies, there were 150 students in face-to-face classes and around 180 external students. All were Australian citizens or had permanent residency status. Students’ responses to various instruments for developing critical self-reflection (temperament types test, hero’s journey, journal, learning styles and multiple intelligences profile) were analysed.

Self-reflection plays a key role in transformative learning, enabling students to discard negative assumptions, beliefs and worldviews that have impeded their educational development. Thus, for adult learners in particular, a key challenge for educators interested in promoting transformative learning is to build in tools and techniques to foster critical self-reflection. Analysis focused on the techniques and strategies used by students and lecturers to foster such reflection.

Self-efficacy

Eighty-one first year early childhood and primary initial teacher education students from a regional Australian university who tested below 80% competence in mathematical problem solving at the commencement of term and who then had the opportunity to attend mathematics competence classes (the intervention) before sitting a parallel competence test later in the term participated in the 2006 stage of the MITES study. In a repeated measures design, self-efficacy scales relating to students’ confidence to solve mathematical problems and to teach mathematical problem solving across six areas – concepts, number, measurement, fractions, space, and chance and data – were administered pre- and post-intervention.

General Linear Model (GLM) Multivariate Analysis using SPSS (Statistical Product and Service Solutions – formerly Statistical Package for the Social Sciences) was used to test the efficacy of the intervention in relation to raising levels of self-efficacy. The self-efficacy scales, which matched items on the competence tests, were administered

immediately before students sat the competence tests pre- and post-intervention in order to ensure that self-efficacy responses were independent of the competence test. Bandura's (1986) three cautions – correspondence between the self-efficacy measure and the criterial task (in this case, the competence test); close proximity in time between the administration of the self-efficacy and criterial task measures; and specificity of the definition of self-efficacy (each scale contained 4-10 specific items) – were respected. Analysis of studies in which a low correspondence was found between self-efficacy and achievement showed that one or more of these cautions were violated (Pajares & Miller, 1994).

Social presence

The masters and doctoral students enrolled in two online courses in the Faculty of Education at the University of Southern Queensland were from Australia and a large number of other countries, including in the Asia Pacific, the Middle East and North America. The research ethics course had small cohorts (1 and 5 students in its first two offers) and the research methods had larger cohorts (ranging from 35 to 70).

Social presence is difficult to identify and analyse definitively and separately from the related phenomena of cognitive presence and teaching prescience (Anderson, 2004; see also Danaher, Hickey, Brown & Conway, 2007). Nevertheless a transformative approach to textual and thematic analysis (Rowan, 2001) is helpful in interrogating the online discussions for evidence of the presence or absence of social presence. This approach focuses on identifying explicit and implicit elements, as well as gaps and silences, in texts. Analysis was directed at theoretically informed clusters of themes within the data, comparing generally accepted dimensions of social presence with what emerged from the online posts.

Data Analysis

Having outlined the research design components of the three studies (each of which equipped us to analyse each site in terms of its manifestation of learner-centredness), we turn now to present specific data from each study. This presentation is necessarily brief and selective; at the same time, all three data sets engage with the question of whether and how learner-centredness was promoted in each site of learning and teaching through the respective conceptual lenses of transformative learning, self-efficacy and social presence.

Transformative learning

The STEPS (Skills for Tertiary Education Preparatory Studies) at Central Queensland University is a preparatory program designed to assist interrupted adult learners access undergraduate university studies. These learners are interrupted in the sense that, for the most part, they failed to complete schooling to a level where they have the qualifications and skills necessary to gain direct entry to university programs. In many cases, STEPS students enter the program uncertain of themselves and their suitability for university, having had unfulfilling school experiences and come from a background in which education has not been valued. In other cases, students eagerly anticipate moving into the world of university study and the career options that it makes available. What is common among STEPS students is a sense of crossing a threshold into an environment that fosters a transformation in educational experience, career aspiration and self-conception.

As Cranton (1994) emphasises, the key to engaging transformative learning is marshalling critical self-reflection in order to revise old or develop new assumptions, beliefs and worldviews. From the beginning of the program, STEPS students are introduced to a range of techniques and models to foster such self-reflection. These are designed to enable students to step beyond themselves and develop a form of meta-literacy (Webb, Schirato & Danaher, 2002) to make sense of the ways in which they are constructed as learners. They develop an understanding of their temperament types, their learning styles and their multiple intelligences. They are introduced to journaling, and reflect upon the 12 stages of the hero's journey in order to make sense of the challenges that they encounter along the STEPS learning pathway. Such a meta-literacy can help students to recognise and reject negative self-images and to draw upon learning styles that suit their temperament and forms of intelligence to generate successful outcomes.

In relation to learner-centredness, it is evident that the STEPS program does not facilitate individually tailored curricula or enable students to collaborate with lecturers in designing their academic programs. At this stage of their learning journeys, it is more important to accustom students to the values of academic study rather than grant them relative autonomy in determining the form of that study. However, STEPS does facilitate a discourse for enabling students to reflect critically and imaginatively upon their own particularised ways of engaging with academic study. Students who develop the facility to invest themselves in this discourse do tend to discard cultural baggage that has impeded their capacity to transform their learning outcomes and cultivate the assumptions, beliefs and worldviews that will equip them to be successful undergraduate students. The next section of this paper reflects on the role of self-efficacy in fostering the skills of such undergraduate students.

Self-efficacy

The purpose of the 2006 stage of the MITES study was to begin to compare the relative efficacy of interventions intended to increase levels of self-efficacy and competence in mathematical problem-solving among first year initial teacher education students. After students were pre-tested for levels of self-efficacy (in terms of solving problems in mathematics and teaching others to solve mathematical problems) and competence in mathematics, those students who did not demonstrate at least 80% competence were provided with the opportunity to attend competence classes or access a range of other interventions before undertaking repeat tests of self-efficacy and a parallel test of competence later in the term.

The multivariate test results indicated significant increases in levels of self-efficacy across all six areas (concepts, number, measurement, fractions, space, and chance and data) for both self-efficacy related to problem solving and self-efficacy related to teaching problem solving in mathematics to others pre- to post-test. The multivariate tests for within subjects uniformly yielded highly significant results on all four multivariate tests (Pillai's, Wilks's, Hotelling's and Roy's). The tests for Within Subjects Contrasts for the self-efficacy*competence class interactions indicated that the significant increases in levels of self-efficacy for all tests occurred regardless of regularity of attendance at competence classes.

While students who needed to increase their overall competence levels in mathematical problem-solving were encouraged to attend competence classes, passing the course was not conditional upon attendance; effectively students had the choice as to whether to attend competence classes and how regularly they would attend. There was also a range of other interventions at their disposal but these were accessed by very few of the students who took part in the pre- and post-tests of self-efficacy. These interventions included access to the university course management system Blackboard sites, access to staff at a centralised mathematics learning centre or consultations with their mathematics lecturers outside class.

While it was beyond the boundaries of this study to conclude that students were selective as to which competence classes they attended, it would seem logical that students who wished to maximise return for effort might choose to attend those classes that concentrated on areas that the results of their pre-test of competence indicated were areas in which they needed to improve. Future research needs to determine whether this is the case. It would also be worthwhile knowing whether giving students the responsibility of choosing which classes to attend is more effective than making it a formal requirement that they attend classes specified by academic staff members and consistent with areas needing improvement as indicated on the pre-test of competence. Of particular interest might be whether students perceived one of these approaches to be more learner-centred than the other.

Social presence

In relation to the students in the online postgraduate courses about educational research methods and ethics at the University of Southern Queensland, two theoretically informed clusters of themes within the students' and the academic staff members' posts to the WebCT discussion boards used in the two courses were selected:

- involvement and participation
- valuing diversity.

With regard to involvement and participation, as with any educational community there are varied levels and rates. Some students post messages often, using the online dialogue to inform and refine their developing thinking about complex issues. Other students post rarely and minimally, often asking practical questions about the summative assessment tasks. Undoubtedly some students are lurkers, never sending messages but hopefully reading those sent by others. The course coordinator (one of the authors of this paper) is conscious of striving to balance between sending too many and not enough posts. Unlike some online courses, these courses do not require group work and all assessment is individual, thereby limiting their participation mostly to one-to-one communication with the course coordinator and some other students.

Valuing diversity is likewise manifested partially rather than wholesale. On the one hand, the encouragement rather than the mandating of student involvement and participation means that many students demonstrate an interest in the views and experiences of others, partly as a framework for refining their own developing comprehensions of educational research methods and ethics. On the other hand, there is no explicit requirement of students to identify opinions with which they disagree and to devise strategies for understanding the bases and effects of those opinions, and

it is certainly feasible that students complete both courses without undergoing any attitudinal change.

This necessarily focused analysis has identified some examples of social presence being enacted in the two courses under discussion, as well as some strategies of course design and pedagogy intended to promote such presence. At the same time, it must be acknowledged that students vary in their levels of interest in, and perhaps capacity for, enacting social presence. Likewise with learner-centredness: while both courses seek to ascertain students' experiential as well as their theoretical knowledge and encourage the valuing of diverse views and experiences, students are limited in the extent to which they interpret and engage with the requirements of the summative assessment tasks. Thus meaning-making by students and researching personal pedagogies by academic staff members (which are discussed more fully in the conclusion below) are – perhaps inevitably – located in particular contexts of space and time where social presence and learner-centredness are aspirations that are sometimes attained rather than outcomes that can be guaranteed.

Conclusion

This paper examined three sites of learning and teaching in two Australian universities: pre-undergraduate students in face-to-face and external modes; face-to-face undergraduate teacher education students; and online postgraduate students. The three concepts of transformative learning, self-efficacy and social presence were deployed to interrogate students' experiences and outcomes in those sites, and in the process to identify three currently significant educational implications of that deployment.

The first of those implications is meanings emerging in the practice of different types of students, different subject matter and disciplines, and different modes of provision. Meaning-making is not automatic in formal education; instead it can flower and flourish, or remain dormant and stagnant, according to the contexts and environments of the educational settings and the aspirations and assumptions of those who learn and teach within those settings. Transformative learning, self-efficacy and social presence are all potentially powerful processes that can certainly promote sustainable and transformative meaning-making, but they require persistent application and the allocation of appropriate time and other resources if they are to be effective.

The second key educational implication is academic staff members researching their personal pedagogies. All three authors have an interest in, and a commitment to, ongoing professional learning with a view to enhancing their teaching effectiveness, and they are convinced that transformative learning, self-efficacy and social presence, among others, constitute useful navigational tools as they negotiate their separate and shared pathways as university teachers and researchers. At the same time, they remain acutely aware of the institutional and systemic obstacles to the enactment of such learning and the multiple and competing priorities that they must juggle on a daily basis.

The same continuing struggle characterises the third key educational implication: the existence and relevance of learner-centredness in the three sites described here and in Australian higher education more broadly. There are certainly examples of attempts to promote learner-centredness in all three sites and enabled by all three concepts.

Equally there is evidence of the increasing influence of other and less educationally productive discourses with which learner-centredness must compete for attention and recognition. So the report card on the three sites and their success in facilitating learner-centredness – as well as their effectiveness in enhancing meaning-making and in underpinning researching personal pedagogies – is likely to contain those two comments beloved of pedagogues down the ages: “Is trying hard” and “Can do better”.

Acknowledgments

The authors are grateful to the students and colleagues involved in the three educational sites reported here. They acknowledge the editorial encouragement and support of Ms Joan M. Conway and the timely and useful feedback of two anonymous referees about an earlier version of this paper.

References

- Anderson, T. (2004). Teaching in an online learning context. In T. Anderson & F. Elloumi (Eds.), *Theory and practice of online learning* (pp. 273-294). Athabasca, AB: Athabasca University.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice Hall.
- Bourdieu, P. (1990). *The logic of practice* (translated by R. Nice). Cambridge, UK: Polity Press.
- Boyer, N. R., Maher, P. A., & Kirkman, S. (2006). *Journal of Transformative Education*, 4(4), 335-361.
- Cranton, P. (1994). *Understanding and promoting transformative learning: A guide for educators of adults*. San Francisco: Jossey-Bass Publishers.
- Danaher, P. A., Hickey, A., Brown, A., & Conway, J. M. (2007). Exploring elements for creating an online community of learners within a distance education course at the University of Southern Queensland. In R. J. Luppigini (Ed.), *Online learning communities* (pp. 219-240). Charlotte, NC: Information Age Publishing.
- Eachus, P., & Cassidy, S. (2006). Development of the Web Users Self-Efficacy Scale (WUSE). *Issues in Informing Science and Information Technology*, 3, 199-209.
- Eisen, Y. (2001). Reflection as a tool for helping university students to be effective learners. In *Learner-centered universities for the new millennium: 26th international conference Rand Afrikaans University Johannesburg, South Africa 9-12 July 2001* (pp. 405-410). Johannesburg, South Africa: Rand Afrikaans University.
- McInnis, C. (2001, August 13). Signs of disengagement? The changing undergraduate experience in Australian universities. Inaugural professorial lecture presented at the Centre for the Study of Higher Education, Faculty of Education, University of Melbourne, Melbourne, Vic.
- Moriarty, B. J., Douglas, G., Punch, K., & Hattie, J. (1995). The importance of self-efficacy as a mediating variable between learning environments and achievement. *British Journal of Educational Psychology*, 65(1), 73-84.
- Pajares, F., & Miller, D. (1994). Role of self-efficacy and self-concept beliefs in mathematical problem solving: A path analysis. *Journal of Educational Psychology*, 86(2), 193-203.
- Rowan, L. O. (2001). *Write me in: Inclusive texts in the primary classroom*. Sydney, NSW: Primary English Teachers' Association.

- Siwatu, K. O. (2007). Preservice teachers' culturally responsive teaching self-efficacy and outcome expectancy beliefs. *Teaching and Teacher Education*, 23, 1086-1101.
- Snyder, K. M. (2007). The digital culture and "peda-socio" transformation. *seminar.net: Media, Technology & Lifelong Learning*, 3(1), 15. Retrieved October 6, 2007, from <http://www.seminar.net/volume-3-issue-1-2007/the-digital-culture-and-peda-socio-transformation-2>
- Sungur, S. (2007). Modeling the relationships among students' motivational beliefs, metacognitive strategy use, and effort regulation. *Scandinavian Journal of Educational Research*, 51(3), 315-326.
- Webb, J., Schirato, T., & Danaher, G. R. (2002). *Understanding Bourdieu*. Crows Nest, NSW: Allen & Unwin.