

A Hero's Journey: Introducing Modular In-service Diploma Courses in IT at Trinity College Dublin

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Abstract: This paper is a reflective narrative exploring the introduction of a modular in-service programme, using the device of the Hero's Journey (features of which are described). The programme is a response to an Irish government initiative which aims to integrate IT into the education system. Pedagogical and curriculum issues, rather than skills or technical matters, are central to the programme; it thus relies heavily on the inputs of experienced classroom teachers. Modules are taught at many centres both on- and off-campus. These features provide organisational challenges. The Hero's Journey proved to be an effective frame for analysing the experience, with both strengths and difficulties being identified and with the spiral nature of the process facilitating replanning. Reculturation, in Fullan's use of the term, has been identified as the essence of the programme.

Introduction

In common with many countries, Ireland is seeking to prepare its education system to meet the challenge of technological development. The major response is entitled "Schools IT 2000" (Department of Education and Science 1997, FitzGibbon & Oldham 1998). It has as major foci to explore creative ways in which IT can be successfully integrated into the Irish education system and provide IT professional skill development for at least 20,000 teachers (Department of Education and Science 1997). Since it involves the whole country and seeks to include all teachers and schools, it is an example of a large-scale educational reform. The nature of such reform measures is, as Fullan points out, largely unappreciated; in his opinion what is involved is *reculturation* rather than *restructuring* of the institution. The former is a much more difficult task (Fullan 1999).

As part of Schools IT 2000, a National Centre for Technology in Education (NCTE) was set up, one of its tasks being to provide in-service courses in IT for teachers. These courses do not lead to certification, but they

have created a demand for certified courses. The Education Department at Trinity College (University of Dublin) was already providing in-service courses in other disciplines, using a flexible modular approach in collaboration with regional Education Centres. The same approach was used in designing and running a programme of such courses in IT.

The introduction and implementation of the university programme is explored in this paper. The experience is analysed using the metaphor of a “hero’s journey,” as suggested by Brown and Moffett for exploring school transformation: “To walk the path of the hero’s journey is to leave the state of unconscious innocence and move towards conscious acceptance that we are living in times of chaos, discord and disequilibrium” (Brown & Moffett 1999 p. 58). Importantly, however, such a journey is one of “hope” (Brown & Moffett 1999 p. 1). This metaphor is used as a frame for reflection on the experience of the programme for two reasons; first, it was perceived to offer insights on the successes and failures which occurred; and secondly, it provides a spiral approach, permitting the replanning and subsequent evaluation to become a seamless activity. The spiral nature of growth, both personal and institutional, is highlighted in the seven stages which are specified for the hero’s journey (Brown & Moffett 1999 p. 14):

1. Breakdown and the Call: Innocence Lost
2. Chaos and Complexity: This Way Come
3. The Heroic Quest: The Search for the Grail
4. Gurus and Alliances: Companions Along the Way
5. Trials, Tests, and Initiations: Staying the Course
6. Insight and Transformation: Arriving where we Started and Knowing the Place for the First Time
7. A New Call: The Journey Begins Again

1. Breakdown and the Call: Innocence Lost

Breakdown is understood as the loss of unconscious innocence — hence, the recognition of a problem. In the case of the document *Schools IT 2000*, several sections focus on the need for various kinds of teacher development (Department of Education and Science 1997). As Brown and Moffett point out, “all great mythic quests and journeys represent movements away from the stability, comfort, and safety of the known in response to external opportunities or threats” (Brown & Moffett 1999 p. 41). IT represents both opportunity and threat for teachers, and this phase in the journey might be considered as arising from the sense that breakdown has occurred or is about to occur. The path for the hero is away from unconscious innocence towards enlightened engagement: that is, taking a path of direct experience in which change is confronted directly. The Call, for the government department, is the recognition that the education system needed to integrate technology into the curriculum, and the realisation that this has considerable resource implications: hardware, software and (crucially) teacher preparation were all necessary. Courses are now being offered by many institutions, including Trinity College, specifically the Division of In-Service Education within the Education Department. This is the unit the work of which is critiqued in the paper.

The loss of innocence for the Division was the recognition that it was not meeting the needs of teachers in the “Information Age”; certified courses which would build on the government-sponsored courses were required. The Call was to provide appropriate courses. In particular, there was a need to fill a perceived gap in the market. Other universities were offering courses focused on skills (proficiency in the use of applications packages) or technical expertise (in computer science and machine maintenance). The Trinity College modules were intended to complement, rather than compete with, these courses; in particular, they were to be aimed at teachers with an interest in curriculum and the teaching/learning environment, and with a curiosity as to whether these might be enhanced by use of IT. Thus, the content was to reflect curricular and pedagogical issues, with the aim of increasing capability: capacity building rather than product transfer (Fullan 1999).

To set the context for exploration of the “hero’s journey,” some organisational features of the programme should be noted. The main outlines for the modules were created by a small steering group with members drawn from three sources: the University Education Department, one of the regional Education Centres which collaborates extensively with the Department, and the ranks of IT educational consultants (teachers with extensive and recent classroom experience in the area but currently working in advisory or support roles). The first three authors of this paper are members of the group. Seven modules were outlined originally: Software and Resource Evaluation, Selection and Use; Communicating with IT; Curriculum Design and Delivery; Presentation using

IT; Authoring for Multimedia and the Internet; Planning for IT; and Management Uses of IT (http://www.tcd.ie/Education/In_Service/index.html). It was intended that each module would be developed further by its own team, typically involving members of the steering group and practising teachers with particular expertise in the area concerned. The modules were to be taught at a variety of sites around the country — reflecting the Division's commitment to an "outreach" model that has not been common in Ireland — and by locally-based teachers as well as Division personnel and those involved in module design. Teaching and learning approaches would be innovative, to allow for creativity as mentioned earlier. Innovation would also be reflected in the style of assessment, which would not be restricted to the production of papers in standard academic format (the norm for assessment for graduate diplomas in the University), but rather would reflect the use of IT and the participative and collaborative approaches that the modules were designed to foster. The remaining sections of this paper examine how these intentions were implemented.

2. Chaos and Complexity

The use of the two terms "chaos" and "complexity" in describing the second stage of the hero's journey is interesting, especially in the light of Fullan's assertion that they are the same thing. He prefers to use the latter term, considering that "the new science of complexity essentially claims that the link between cause and effect is difficult to trace, that change (planned and otherwise) unfolds in non-linear ways, that paradoxes and contradictions abound and that creative solutions arise out of interaction under conditions of uncertainty, diversity and instability" (Fullan 1999 p. 4). The Division's experience echoes this understanding. With hindsight, it can be seen that the inherent complexity of the task guaranteed a measure of chaos. Brown and Moffett quote Bennett who describes the chaos present in schools as "the multitude of variables that can affect quality implementation of a sound educational innovation, chaos is doing too much too fast so that nothing is done well or connected to anything else. Chaos is the lack of a sustained focus" (Bennett, in Brown & Moffett 1999 p. 70). A pertinent question raised is: "How is it possible to improve the quality of teaching and learning ... [with] unrealistic time estimates?" (Brown & Moffett 1999 p. 73) (see Hargreaves 1995).

The In-Service Division had over ten years' experience of organising inservice programmes for teachers. Despite this experience, it was not able to anticipate fully the demands associated with the effective delivery of professional development in the area of curricular integration of IT. These included the need for the Division to engage in: curriculum design, software identification, software licensing and procurement, hardware specification, networking specification, identification of local venues and technical support, tutor identification and induction, identification and access to learning resources for participants (such as software and web-based resources), and identification and dissemination of assessment procedures.

Moreover, time estimates did indeed prove unrealistic. The seven modules listed above were outlined in winter 1997-98, and teaching commenced in Summer 1998. At Education Centres around the country, there was an immediate demand, not only for individual modules, but also for sets of four different ones, so that teachers could complete a diploma inside one year. This, in turn, meant that a larger team of lecturers ("tutors") than envisaged had to be set up. In the first year of implementation, twenty nine modules were offered at seven sites, both on and off the university campus. This caused difficulties. For example, production of documentation was rushed; tutors were appointed in haste, without time for proper induction; designated computer teaching spaces were not available as promised; internet connections were not in place. These can be viewed as examples of external chaos. Examples of internal chaos would include, for the tutors, conflicting emotions and loss of focus when encountering organisational and technical difficulties; for the students, confusion with regard to the nature of IT in education (perhaps perceived as an efficient mode of teaching but encountered as a series of technical problems) and the role of the tutors (expected to be "experts" but not necessarily more expert than some of the participants, especially at dealing with the technical problems).

In this phase it is also necessary to confront the "shadow" elements within an organisation. These are defined as "unacknowledged and covert patterns of behavior that are in competition with the formal, overt components of a business or educational organisation" (Brown & Moffett 1999 p. 60). This includes the extent that the stated purposes or actual reality are at odds with the declared values, and the acknowledgement of limitations such as lack of knowledge and possibly lack of will. An example of the former would be the contradiction between a declared aim of the Division, "to enable teachers to reach their potential" (as stated in the Students' handbook), and the reality of insufficient attention being given to providing support for completion of

the assignments. This was not sufficiently addressed by the Division initially. Perhaps this exemplifies the need for teacher educators to change their habits of practice towards a new model of professional development as outlined by Stein et al.; for example, a shift is recommended from “short duration with bounded personal commitments” to “longer duration with more open-ended personal commitments” (Stein et al. 1999 p. 244).

Because of the nature of the programme, assessment was always going to be a challenge. As indicated above, the course designers wanted to use a variety of modes, reflecting the innovative philosophy of some modules. Given the wide range of topics, tutors and conditions of teaching, it was difficult to ensure equality of standards; in particular, tutors without experience of third-level teaching were “thrown in at the deep end.” (In fact, it can be said that a side journey emerged; this was the development of the tutors, especially in relation to assessment.) Moreover, the fact that modules were being run at the same time as the national — non-certified — courses for Schools IT 2000 led to some confusion. Because of their experience of non-certified courses, a number of students queried the need to produce assignments, suggesting that attendance would be sufficient to obtain credit.

3. The Heroic Quest: The Search for the Grail

The vision quest, in the words of Brown and Moffett, is “embodied in our search for ways to translate all that we now know about quality curriculum, instruction and assessment into the daily lives of schools” (Brown & Moffett 1999 p. 82). The underlying aim of the Trinity College Education Department in seeking to introduce IT is that of many educators: to address the needs of increasingly diverse student populations and the complexities associated with the increased demands made on education by society. Finding the way in which this can be achieved can be equated to finding the Grail (see Fullan 1993).

The vision was initially outlined by the small steering group, so — contrary to the suggestion of Brown and Moffett — it was not developed collaboratively with the whole group of tutors. However, as “vision building is an open-ended, dynamic process” (Brown & Moffett 1999 p. 84), tutors were able to input their on-going experience as part of subsequent group meetings, and thus claim ownership of the vision for themselves. This, together with the fast-changing nature of the discipline, has meant that course content has evolved continuously in the period. A contributory factor has been the continuing improvement in computer literacy of students entering the modules. An important aspect of the vision driving the quest was that it should address curricular and pedagogical, rather than technical, interests, as described above; while this remains dominant, it is now possible for some more technical modules (for example, on advanced web authoring) to be introduced, without contravening the spirit of the programme.

Altogether, therefore, it was possible for the process to be viewed as “hopeful,” another attribute of the Grail quest. Five recurrent patterns for this phase were revealed (Brown & Moffett 1999, Senge 1990):

- a) personal vision building as a sacred commitment — once sure of our vision, we need to stand up for it;
- b) shared inquiry as a cornerstone of the successful vision quest — no one can achieve the vision alone, and as it is a process, needs to be subject to constant inquiry;
- c) self-mastery as the ultimate jewel in the lotus — all need to be dedicated to self-mastery without which it is not possible to move from unconscious innocence to confront the realities of chaos and complexity;
- d) the capacity for collaboration as a prerequisite to achieving the vision — team skills are essential, and also to be able to stand aside from the team if necessary;
- e) vision and the “razor’s edge of paradox” — to walk on the razor’s edge is to be balanced between following the vision and encountering opposition and obstacles.

These patterns were present in the tutors’ group, and were perceived to be developing to varying extents within the different class groups of students.

4. Gurus and Alliances: Companions Along the Way

An important part of the heroic journey is the acceptance that personal limitations require reaching out to companions, including wisdom figures, who embody expert knowledge and insight. The Trinity College in-service operation relies heavily on the participation of such colleagues from outside the university. For the IT

courses, it was hoped that experienced classroom teachers would do most of the lecturing. Selection of tutors presented some difficulty; the lack of relevant qualifications meant that many excellent practitioners of IT in the classroom were not formally qualified to teach in the programme (a Master's or higher degree being required). Initiation of the tutors' group, which maintained regular contact using email as well as having formal and informal meetings, was crucial. Members became "gurus" for each other at particular times. Collaboration was the norm, and tutors on a module in one centre shared their experience, presentations, notes, worksheets and other materials with a newer team in another centre. Companions along the way also included books — notably (Grabe & Grabe 1998) — articles, websites and other non-personal sources of information. Also, a model of collaboration as being the norm for educators was being presented to the students.

The students — the teachers attending the courses — are also companions who travel with us. It is envisaged that tutors and students together will be agents of change in the school system.

5. Trials, Tests and Limitations: Staying the Course

This stage recognises the difficulties involved. Those encountered at the beginning were outlined in section 2. Some touchstones suggested by Brown & Moffett are very useful in this context: problems are natural and inevitable, and learning occurs at the edge of chaos (Brown & Moffett 1999 p. 126 ff.).

To stay the course, a systems view must be adopted. One of the difficulties in offering free-standing modules, rather than intact programmes which are the Irish norm, is the higher rate of drop-out that tends to occur. Initial evidence suggests that students are staying with the programme, although a worrying factor was the lower than hoped-for number of assignments submitted (201 out of 527 registrations). In all, there were 29 modules, and sixteen diplomas were awarded in October 1999. More will presumably follow, as students have three years in which to complete assignments. Five students who had previously taken other modules qualified to enter the (follow-up) Master's programme (eight modules completed, with a suitably high average grade).

One aspect raised by Brown and Moffett is that of burnout — following John of the Cross, they term it "the dark night of the soul" (Brown & Moffett 1999 p. 125 ff.) — regarding *initiative overload* and *program proliferation*, resulting in cognitive disconnects and despair. "Giving up" did occur. Some tutors have chosen not to present during the first term of 1999/2000 academic year. Despair however, was not a contributory factor in their decision; rather, it was the reality of undertaking a full-time teaching job and a part-time tutoring one as well. The challenge to bring about change and transformation in the education system remains with them. In the drive to meet the needs of the students, insufficient care may have been taken of the tutors, for example with regard to the provision of 'amulets' (which could be as simple as encouraging them to say 'no' to requests for more teaching!) to assist them in their roles. New structures are being explored.

6. Insight and Transformation: Arriving Where We Started and Knowing the Place for the First Time

The hero's outcome is the arrival transformed at the point of origin, but knowing and contributing to the place "in a new, more fully conscious way." We hope that, as for a hero, our experiences have equipped us, and our students, with "insight, wisdom, efficacy and commitment" (Brown & Moffett 1999 p. 146). It remains to investigate the extent to which this is the case.

Students were invited to submit an evaluation form, which explored their perceptions of the lecturer, the venue and the suitability of the content, at the end of a module. Of the evaluations received, comments were very positive regarding the teaching, content and timing of the modules; the negative comments related to the technical difficulties which plagued the first modules in particular. Unfortunately, however, the responses were too bland to support further analysis. In many ways, the assignments presented for assessment were more revealing regarding the quality of understanding and level of the attainment of the students. Overall, the quality of assignments increased as lecturers learnt to modify the task set in the light of their experiences. Several of the assignments reached a high enough standard to support a proposal that they should be made available to other teachers on a website. Students' appreciation of the difficulties of maintaining heavily-used equipment to a high standard of functionality, especially in regard to web connections, grew during the period. Indeed, to the question

“what other content should be taught?”, a common answer was the skills to maintain a networked system in a school. This lies somewhat outside the scope initially envisaged for the modules, but it is being addressed in a parallel Master’s degree programme introduced in Autumn 1999 as a joint initiative between the Education and Computer Science Departments (<http://www.cs.tcd.ie/courses/mscitedu>), and co-ordinated by the fourth author of this paper.

Further work is planned on assessment and on the development of new modules to reflect the ever-changing field, possibly incorporating the use of web-based discussions and video-conferencing to integrate more local expertise with that in the university and to support students when doing their assignments. It is hoped that the most interesting projects will be made available to other teachers through either the College’s web page or the NCTE site, Scoilnet (“scoil” being the Irish for “school”). One possible indicator of success to date is that modules very similar in scope and content to the Trinity ones are now being developed by NCTE.

One conclusion that can be reached is that the programme, and of course those of other institutions, has resulted in the establishment of nuclei of educationalists, critical and analytical of the role and potential of IT in education in the curriculum, around many of the Education Centres around the country. This is in accordance with the purpose of the hero’s journey. The legacy of the transformed heroic educator includes being able to approach change fearlessly, to take responsibility for our actions, to know the darker side, to be reinvigorated regarding their role in education and their teaching, to know that we need others and to share with others, and to be aware of the need for resiliency: that is, to take care of ourselves.

7. A New Call

A temptation in undertaking a journey may be to cling to ways that are traditional and comforting and in some respects that happened in the planning and initial presentations of the modules. However the desire to facilitate the type of professional development experience which genuinely impacts on classroom practice has led to a realization that what is necessary is not simply an upskilling exercise but a re-envisioning of teaching and learning and a consequent reculturation of students, tutors and university (Fullan 1999). Students have had to be prompted to go beyond the understandable desire for quick-fix solution and concrete applications for the classroom, and to reflect on the underlying models of learning. Tutors, as a necessary pre-requisite to dealing with the complexity of the teaching task, have had to develop collaborative skills such as peer-learning and team-teaching. The university has had to review its models of assessment to take account of the new media and different modes of presentation.

As the first cohort of IT students proceeds to study for Master’s degrees and new groups come forward to take up the modules (established and new), the cycle starts afresh and there is a new Call. We hope that we are approaching the next cycle with more appreciation of the tasks involved, but with the same sense of excitement and hope that promoted the original enterprise.

References

- Brown, J.L., & Moffett, C.A. (1999). *The Hero's Journey: How Educators Can Transform Schools and Improve Learning*. Alexandria, VA: ASCD.
- Department of Education and Science (1997). *Schools IT2000: A Policy Framework for the New Millennium*. Dublin: Government Publications.
- FitzGibbon, A., & Oldham, E. (1998). Internet Readiness: Preservice Teachers' Attitudes to High Technology in Schools. *Technology and Teacher Education Annual, 1998 - Vol. 1*, Association for the Advancement of Computing in Education, Charlottesville, VA. 542-545.
- Fullan, M. (1993). *Change Forces*. London: Falmer.
- Fullan, M. (1999). *Change Forces: the Sequel*. London: Falmer.
- Grabe, M., & Grabe, C. (1998). *Integrating Technology for Meaningful Learning*. Boston: Houghton Mifflin.
- Hargreaves, A. (1995). *Changing Teachers, Changing Times*. London: Cassell.
- Senge, P. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*. London: Nicholas Brealey.
- Stein, M. K., Schwan Smith, M., & Silver, E. A. (1999). The development of professional developers: Learning to assist teachers in new settings in new ways. *Harvard Educational Review* 69 (3), 237-269.