

Is e-Learning for me?

Experiences of an Intern Program in a Centre for Educational Technology

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Abstract—Much focus has been given to the Net Generation, and how they learn and interact with the world. In our Centre we faced the interesting challenge of working with Net Generation graduates, and inducting them into the world of work in the emerging field of educational technology. This paper reports on a three year intern program, and describes experiences and challenges of learning about e-learning.

Index Terms—e-learning, internships, net-generation, South Africa.

I. INTRODUCTION

E-learning is a practice with which new graduates are now quite familiar. However, in the South African context it is a relatively new field. Only a few Universities in the country offer some form of postgraduate qualification in educational technology. As a field of work, it is most often something people grow into than are necessarily qualified for.

To address the skill gaps in educational technology, the Centre for Educational Technology at UCT obtained support from the Carnegie Corporation of New York to establish an intern program. One of the many aims of the program was to enable recent graduates to obtain experience working in a Centre for which e-learning was a core business.

This paper reports on an evaluation conducted of this three year program, and draws on Lave and Wengers [1] notion of “legitimate peripheral participation” as a model of apprenticeship. We examine how technology was used to facilitate reflection, success, and the challenges young people faced with our model of adaptive learning [2].

Given young people’s immersion in the world of technology, every intern had some personal experience of technology for personal and study related purposes. However, challenges between interns’ personal skills, and the way they applied these in their workplace, raised some interesting dilemmas; and we observed some paradoxical tension between interns wanting independence and not wanting to act independently or take risks [3]

Whilst the paper will aim to understand our experience using a theoretical lens of Lave and Wenger, we will also share some of the approaches that worked, and lessons learnt.

II. ABOUT THE PROGRAM

A. The Centre for Educational Technology

The Centre for Educational Technology (CET) was formally established in January 2005, as a unit within the

Centre for Higher Educational Development (CHED) at the University of Cape Town. At the start of 2014 the Centre merged with the group responsible for academic staff development within CHED to form a larger Centre for Innovation in Learning and Teaching (CILT). CET is the key entity within UCT in providing educational technology infrastructure, services, support and development. It includes a wide mandate covering: learning technologies, development and support, curriculum development, resources development, staff development, postgraduate teaching (in collaboration with the School of Education), and research that spans research and development for UCT and academic research.

B. The Internship Programme

The purpose of the programme was to give new graduates, from a variety of backgrounds, and with little or no prior exposure to the emerging field of educational technology, a broad exposure to the emerging field of educational technology through a coherent, structured, and properly staffed internship that included mentoring and a variety of professional development activities inside and outside CET. The intention was to build capacity for the field in South Africa and Africa, and to prioritize the development of Africans and women. In addition to acquiring temporary additional professional capacity, CET hoped to groom young people for employment and to diversify its staff complement.

The internship program reported on was conducted within CET from July 2009 to June 2013 and comprised a total of 10 interns.

III. METHODOLOGY

This paper is drawn from the findings presented in an external evaluation conducted between June and October 2013 at the end of the project. It involved interviews with the Programme Coordinator / Mentor (one at the beginning and one at the end of the evaluation process), interviews and focus groups with 9 of the 10 interns who participated in the program, focus groups with CET managers, CET staff who worked closely with the interns, and individual interviews with CHED faculty members involved in this program, as well as other intern programs in the Faculty. The findings were contextualized and written up as a final evaluation report providing insights into how the objectives were met and recommendations for improvements.

IV. NET GENERATION IN THE WORKPLACE

One of the questions the internship has evoked in CET is how to manage young people who have grown up with

their attention divided across the physical and virtual worlds. CET is in an interesting position, because it faces this problem as employer and as UCT's educational technology service provider. It is also an area of research that appears to attract a lot of attention in the popular media, and an area of scholarship that CET has contributed to [4].

There are different views on the defining qualities of the "Net-Generation". They are evidently civic minded with a strong sense of local and global community. They also have a distinctive sense of entitlement, and narcissistic attitudes [5]. They have been typified as preferring to experience the world at first hand within the collective of friends and community in the digital and physical worlds, rather than being told what to like or do. They function at speed, place great value on social responsibility, environmental sustainability, and authenticity [6]. They also want a lot of reinforcing feedback and, in a world of the "instant celebrity", expect to be admired.

The reality is that the Millennials are still a work in progress, and that socio-economic conditions in South Africa produce graduates with very different life experiences, and exposure to technology. South African research shows that "Generation Y Knowledge Workers" have high expectations, based on having access to large volumes of information, the confidence to apply it, and to apply themselves. Employers are being challenged to meet their expectations of "Flexibility, work-life balance, mobility, career developmental opportunities, and giving back to society" and to demonstrate an "ethical track record and [organisational] culture"[7]. They rate the opportunity to do exciting, challenging and meaningful work that improves their "employability" (the opportunity to develop knowledge and skills that make them more marketable within their current and future employment situations), and work-life balance most highly [8]. Other important factors are having a chance to learn and develop, to align their talents with their job, and open, transparent communication. Compensation and benefits are the least important factors in their job/employer choices. They are aware of, and show commitment to, reciprocity, and believe that their demands make them more productive and valuable employees. The skills shortage enables them to negotiate the terms of their employment more than any previous generation, and standardised approaches to attracting and retaining them are ineffective.

Bowmaker-Falconer's study for the South African Graduate Recruiters Association (SAGRA) on talent retention showed that only 20% of graduates planned to stay with their employer for five years or more, and black graduates see themselves as more mobile than white graduates. Overall, the study indicated that organisations can hope to retain 2 out of 10 graduates over a five year period.

The same study revealed that while Generation Y graduates believe they are entrepreneurial, they rate themselves low on having a "free agent disposition", revealing a paradoxical tension between wanting independence, and not wanting to act independently or take risks. Bowmaker-Falconer speculates that this may reflect managers being ill-equipped to respond to and support graduates' emerging (development) needs. The CET internship programme experience suggests that this may well be true.

The SAGRA study also highlighted the phenomenon of "temporary loyalty" that characterises the current 20-

some things - "I will be committed to the goals of the organisation and deliver against a specific set of accountabilities for which I want to be appropriately rewarded. In doing so, I also need to increase my value ... and then I am moving on to the next opportunity." This attitude was evident among some interns, in some cases quite acutely. However, there were also cases of interns with apparently low ambition who "just wanted a job", possibly reflecting more "socialized" mindset. SAGRA's advice is to treat temporary loyalty in the way that sports teams and bands treat the behaviour of fans: accept, enjoy and capitalize on it while it lasts because while it does, it can be very profitable.

V. FINDINGS

A. Organizational Culture Match

The evaluation interviews demonstrated conclusively that CET is a high performance organisation where creativity, initiative, flexibility, versatility, drive, curiosity and enthusiasm are valued and rewarded. Some interns all mentioned this as an attractive and rewarding feature of their experience. The academic and PASS staff interviewed were highly intelligent, skilled, energetic, hard-working, knowledgeable people – the kind of people who "muck in", "get their hands dirty", take on a range of tasks ranging from the mundane to the pioneering with equanimity; in short, people who are "self-authoring" and use their jobs to take ownership of, and create their own work, at whatever level.

The nature of academic work, particularly in a leading research-focused university, requires people to be self-starters, capable of working independently, able to learn autonomously, and figure things out for themselves; confident enough to form relationships with other specialists inside and outside the institution's walls, including with very senior and far more expert people; and to ask for help by offering their own learning and insights as a basis for discussion and debate. "Deep-ending" is a norm in this kind of culture, which demands high levels of resilience and self-confidence. People who fit the profile may not be aware of the level of challenge it poses, and when the majority do fit, it may be difficult for managers to deal with the behaviour of those who do not. CET managers and staff talked extensively about the difficulty of dealing with interns who did not share the dominant work ethic.

The reality, as the intern group illustrated, is that some people in their twenties are able to manage their engagement in the two worlds effectively and others seem not to know how to apply their attention appropriately, which creates a problem for an organisation like CET, because its activities unfold in both worlds.

The university culture also seems to assume that people who thrive are powerfully driven by internal commitments, and do not need to be given "pats on the back". The successful interns commented that management seemed to be interested mainly in delivery, and that they had received no direct feedback on the quality of their work. The three who were offered jobs said this was the most explicit acknowledgement of their contribution, and that formative feedback was a programme gap. Formative feedback seems to have been limited to cases of inadequate performance, which managers found perplexing and very draining to deal with. Interns who were aware of having their performance managed, as a result of CET's

dissatisfaction, were sensitive to the contrast with the stellar performers, who were left to their own devices.

Lave and Wenger's study demonstrated that it is in the nature of an apprentice-style internship (and indeed of any form of employment in a community of practice) that managing learning (which encompasses a range of activities including formal on-the-job training and informal on-the-job learning, mentoring, formal reflective processes, and participation in various professional development activities as observer and active contributor) and managing performance are interrelated. The capacity development needs of interns and their employer organisations overlap substantially and yet often conflict with each other. This is true no matter how well or poorly an intern performs because the work and its context are the site and subject of learning.

The learning models were typified as "learning as a relatively independent process" and "learning as a more supported process". One could easily substitute the word "working" for "learning" and arrive at the same place, for interns and permanent CET employees.

Independence and creative self-reliance are intrinsic to CET's culture and prized as a necessity for the unit's capacity to respond to the constantly changing, ambiguous and uncertain conditions arising from unfolding institutional imperatives and the emergent field of educational technology itself. One manager commented that it is neither possible nor desirable to define some activities closely because they are "blue sky" areas, and the manager her/himself doesn't know what to do or how to do it; it is precisely the intern's creative engagement that is needed. Some rise to the challenge, and some do not. It is a way of sifting out young people who fit the performance requirements of the community of practice.

CET project managers and staff were aware of the difficulties some interns had in responding to sparsely defined briefs, and a more "hands off" management style. Some permanent staff members also struggled to meet these demands. Project staff who worked with interns reported achieving better outcomes even with more motivated interns when they "micromanaged", defining tasks closely, and making the rules of engagement and the consequences of not conforming very clear.

CET staff members' perspectives, as well as others who had experience with intern programs in the Faculty, suggest that contexts with complex learning requirements that demand high levels of independence from mature employees could accommodate more structure for those who need it. It does mean that, where possible, delegated tasks should include a core of clear role definitions and expectations, and be tailored to match the requirements of particular projects, and the learning style/supervision needs of individual interns. A key factor is the capacity to provide supervision that includes formal and informal mentoring. This approach would also be supported by having a variety of mentoring relationships, some of which might involve project staff, more formally, as supervisors.

The term "micromanagement" came up on numerous occasions in the interviews. Managers and staff expressed intense frustration because CET staff generally do not need "micromanaging", and there are no structures in place for it. People are able to function as professionals in their fields. The term appeared to be used to refer to two kinds of people: (1) those who failed to meet basic work

norms, such as, arriving on time, working the hours they were paid for, paying attention to what they were supposed to be doing, and not abusing institutional resources, and (2) those whose learning style predisposed them to need clear and detailed briefs, and more structured work and, perhaps, to be told what to do next. Conflating the two groups of people may be unfair to people in the second category, who may have had a learning style gap rather than a maturity gap, i.e., a technical rather than an adaptive development need.

B. Reflections as learning process

The programme model included a written reflective element and there was experimentation with different approaches to the structured documentation of individual learning over time. These included public blogs, individual journal writing related to personal learning goals that were seen only by the intern and the programme coordinator / mentor, a Wiki, which involved contributions by the interns and the programme coordinator / mentor, and the UCT performance management system templates. Each method had its own challenge. The public platform required an ability to exercise judgment about what was appropriate. The early interns reported writing up what they thought management wanted to hear, and being asked to remove things on occasions. The Wiki was too demanding for some contributors. The UCT performance management system required feedback from multiple sources, which proved too difficult to source. From the programme coordinator / mentor's perspective, none of these processes produced value for those involved, and from around mid-way, the process seems to have petered out.

The various approaches experimented with the medium for documenting reflection. There wasn't a focus on making explicit what "reflection" meant in the internship; the reflection process as a skill; or what the desired outcomes were for the interns or for CET. In general, even the best interns struggled with the reflective self-evaluation process. This is not unusual: one of the authors own experience of efforts by postgraduate post-experience students in another Faculty to write learning journals or "critical incident logs" is that it is an often a difficult and new activity that has to be learned through experience. Many factors contribute to individuals' ability to engage in formal reflection, including, reasonably well developed self-awareness (which is not cultivated in schools or most higher education programmes), perhaps an introspective disposition, the ability to identify situations that provoke relevant learning, to name a few. In addition the skill of writing and the construction of narrative, formal reflection requires an approach to problems that "unpacks" them, which, as Green et al [9] point out, draws on the kind of critical thinking developed in the humanities that science graduates may not have learned.

What's interesting is, that whilst the interns were all tech savvy and engaged in social media as part of their everyday lives, transferring this to the realm of the working world was different, and a critical literacy they had not acquired. This challenge has also been observed amongst postgraduate students participating in Masters in Education programmes across Africa, [10] where students found it a challenge to use emerging technologies to be critically reflective. So strategies for developing reflection are not necessarily straightforward.

C. *Benefits and challenges*

The interns interviewed claimed a range of benefits from their participation and no one claimed not to have benefitted at all. Individuals mentioned the following:

The opportunity to understand what kind of organisational culture works for them: more, or less structure; more, or less ownership of their own work.

Being challenged with real, live projects that they knew little about, and having to “figure things out” for themselves.

Exposure to other interns’ specialist knowledge, and skills, and the opportunity to learn from one another.

Opportunities for training and travel, over and above the salary, that provided exposure to the bigger world of educational technology in different contexts in Africa, and elsewhere. One intern commented, *“Most people have to save for this, but we got the opportunity to just do it!”*

Opportunities to build personal profiles, and hone public speaking skills by making presentations at conferences overseas, and in South Africa.

Opportunities to motivate for new activities and infrastructure in CET, and to be responsible for their implementation – being trusted to run with a big project and associated budget.

Opportunities to network within UCT, that existed because of the special nature of CET’s work that cuts across the entire institution.

Encouragement, and opportunities, to form external connections across the globe that have remained valuable.

Opportunities to hone teaching skills by running workshops. For example, one intern ran a series of workshops on open licensing and copyright law for the UK Institute for Development Studies that attracted thousands of participants. This enabled her to test herself, push her own boundaries, and develop a reputation for having specialist knowledge.

The ability to understand technical issues. Another intern gave CET a 5 out of 5 for exposure to the possibilities of technologies. Another said, *“You’d think educational technology is a simple thing, but it’s not. There are many different aspects and players. I learned a lot!”*

Transferrable knowledge and skills, including technical language, software use and management, hardware repair and maintenance, a broad understanding of the technical context, proposal writing, experience in financial and project management, teamwork, managing upwards, interacting with the public, and public speaking.

The opportunity to study or learn formally through a variety of courses, including the MPhil (ICTS); support for their studies in other disciplines, not all of which were overtly related to CET’s work.

The CET culture: a fun, happy environment with colleagues who are eager to help, and generous in sharing their knowledge, the coffee, and the catering.

An overall personal “edge” through the accumulation of a wide range of “little skills” that made them well-rounded, multi-skilled, and able to multitask. This made them employable and desirable by comparison with other graduates who only have a degree in a base discipline.

These statements substantiate the programme coordinator / mentor’s views on the main benefits for the interns. She added the following:

The opportunity to answer the question, “Is e-learning for me?” Given the newness of the field, the internship was the only way to discover this and the main outcome CET wanted. If it did emerge as a career of choice, the intern would also be able to identify which aspect they wanted to specialise in because of CET’s very broad scope, ranging from the very technical to the non-technical. All of the interns who were interviewed seemed to have reached a degree of clarity on this. The pattern that emerged was that those who did achieve a good idea of whether educational technology was a definite chosen career, had found ways to apply the skills they brought into the internship in the field.

Intern	Age	Gender	After internship
A	34	F	Permanent position as teacher applying Ed Tech
B	24	F	Permanent position in CET
C	24	F	Contract position at UCT in related field
D	24	M	Contract position at UCT in related field
E	26	F	New internship in different field
F	23	F	Perusing work in different field
G	21	M	Permanent position IT business sector.
H	25	F	Left to complete studies
I	23	M	Left to travel
J	27	F	Permanent position in CET

For others it was a stepping-stone to something else, in some cases a career move emerging out of the experience, and in some cases a stage in what looked at the time like a fairly random process. The passage of time might reveal a different picture, however, and it is important not to judge too harshly the less directly “successful” outcomes measured by immediate entry into the educational technology field.

Adapting to the nature of a workplace; working in a team; being part of a group; what is entailed in having a job: being present; HR rules and norms; responsibility; interacting with people-- even the best of the interns had to learn how to integrate, and work collaboratively, which indicates that most undergraduate, and even postgraduate degrees, do not provide exposure to collaborative work. The same applied to learning how to manage work pressure: project staff expressed the view that Interns who had struggled with multiple competing demands would come to appreciate the value of receiving “a baptism of fire”.

An opportunity to have a job-- This applied to all of them and for some, was the main benefit. These interns did their work adequately, but did not see a future for themselves in the field or have a vision for CET that they could shape through adding value. They contributed to day-to-day activities that were important for CET’s productivity and, although they left no legacy in the form of a product or innovation, there were benefits for both parties that should not be discounted. It may be tempting to compare this kind of intern unfavourably with the “stars”, but the truth is that one cannot assess the long-term impact on their careers or the development of their “mental complexity”. Some changes take time to come to fruition, and people develop at their own pace, and follow their own paths.

A “tipping point” in being challenged to work independently. Some CET managers are good thinkers, but are less adept at “eliciting the best from their subordinates”,

which left interns to “stumble and figure it out”. Several interns had this experience; it was raised in the formative evaluations, and it seems that a workable solution was not found.

VI. LESSONS LEARNT

We have learnt a lot from our experience and have subsequently adapted the model for our new project on “Developing e-learning professionals in African higher education” also supported by CCNY. Here, we are offering work-based scholarships to students accepted for a new Postgraduate Diploma in Educational Technology. The intention is that students acquire the theoretical knowledge through the formal course, and use their opportunity of working within CILT to gain experience of the application of theory in practice.

We believe a better understanding of interns’ learning styles may help in the apprenticeship process. To be most effective, all staff members should complete an assessment so that patterns across the organization can be understood and made known to everyone. Interns’ learning style dominance and developmental edges could be worked with explicitly in allocating activities and managing performance. This would make it possible to implement managers’ suggestion to separate learning from CET’s operational needs, and implement a more careful development process for each intern. A Learning Outcomes Scale could be used to define the “learning curve” for individual projects as a basis for structuring briefs and managing delegation. Matching this with the intern’s learning style could help identify effective ways of orienting interns to particular activities.

We would consider formal sharing of aspects of learning facilitation and supervision. The overall internal programme coordinator role should be retained. The person who fulfils it should have a broad perspective on CET and educational technology and the authority to exert influence within the organisation. He/she should play an overall mentoring role that addresses adaptation to the CET culture, and be an escalation route for problems that cannot be resolved in the immediate line management relationship, or particularly sensitive and/or personal issues. Interns should have regular meetings with this person, and he/she should have access to interns’ written reflections. He/she should stay in touch with project managers and staff, and structure this engagement in ways that work for everyone, but without compromising on the overall supervisory role invested in him/her.

To reduce the workload for the programme coordinator, and provide for a totally neutral learning space that includes a tough stance that does not jeopardise day-to-day working relationships, budget provision could be made for external management coaching to work with interns individually and collectively. There could be a monthly group-coaching meeting where issues of common concern are discussed so the interns learn from each other. Each intern could be allowed one or two hours of individual access to a coach per month. The coach/coaches should be able to provide individual feedback on assessments such as the LSI.

Project staff, and managers working with interns, could be offered training in mentoring, and be supported (but not substituted) by the programme coordinator.

Reflective process should be varied and include a requirement for regular, written, structured accounts that are used as the basis for learning conversations with the mentor and/or coach. Reflection should cover technical learning, as well as learning related to behavioural and interpersonal challenges in the workplace and emerging membership of the community of practice culture.

The submission of reports or case studies to management at the end of projects could be considered as another strategy for reflection. These could explore what interns did well and enjoyed, which would help with ongoing assessment of interns’ skills development and interests, and facilitate channelling their contributions more effectively.

We would experiment with informal learning “events” where seasoned practitioners tell stories about particularly challenging or successful situations that contribute to the oral knowledge base. Interns and other newcomers could be given opportunities to participate actively, and develop their own skill in constructing this kind of learning artifact. Interns could also be given the task of using technologies to capture these stories as part of CET’s explicit knowledge repository, as a way of learning to use the technologies for lower risk outcomes and as collaborative projects that bring them together from across the portfolios.

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