

## Using technology to support student transition into higher education

Chris Cane<sup>1</sup>, Annette Cashmore<sup>1</sup>, Robert Cane<sup>2</sup>, Sam Nikoi<sup>3</sup> & Palitha Edirisingha<sup>3</sup>

<sup>1</sup>GENIE CETL, Department of Genetics, University of Leicester, Leicester, UK.

<sup>2</sup>Magdalen College, University of Oxford, UK.

<sup>3</sup>Beyond Distance Research Alliance, University of Leicester, Leicester, UK.

### Abstract

*Poor transition into university life and difficulties with academic and social demands are key contributors to underachievement and dropout. New entrants may hold misconceptions and many are inadequately prepared for the university's assessment procedures, hours of face-to-face contact and independent study required, and large group sizes (Robotham, & Julian, 2006). This on-going project taps into the knowledge and experience of students who recently made their own transition and uses podcasting to reach students before arrival and after starting their studies. Podcasting can capture this 'hot knowledge' and make it easily available. Despite interest in informal learning and mobile audio devices, little attention has been given to exploiting these novel ways of improving peer-supported transition into higher education. We have previously used student-created podcasts as learning tools (Cane & Cashmore, 2008), and here we describe the application of this approach to aiding transition, and analyse it's effectiveness.*

### Background

The Informal Mobile Podcasting And Learning Adaptations for Transition (IMAPAL4T) research project originated from our interest in examining how student-created podcasts can support new undergraduates transition into Higher Education (HE). It aimed to answer the questions:

- How can undergraduates' informal knowledge and experience, captured and delivered through podcasts, support transition into HE?
- Do students perceive that they benefit from podcasts, and if so how?

Studies of undergraduates' satisfaction, academic performance and retention in HE identify the critical importance of the first year for shaping their attitudes and approaches to learning. Positive transition into HE has a direct impact on students' later learning experiences, particularly during their first year. Most interventions to support transition from school to university are based on institution-driven approaches such as courses on learning and study skills. The knowledge and experience of students who have already made the transition have rarely been exploited. Such knowledge is considered to be 'hot knowledge' (Ball and Vincent, 1998), and can be identified as 'the socially embedded' knowledge prevailing in networks of friends, family, relatives and neighbours, and those who are generally considered as 'people like me' (Hutchings, 2003, p. 110). Studies of students' preparation for HE report that potential applicants consider 'hot knowledge' to be more trustworthy than communication through 'official' sources (Hutchings, 2003).

Podcasting can capture this 'hot knowledge' and make it available to HE entrants and those studying at Level 1. IMPALA4T used podcasting to develop a new approach by tapping the

knowledge and experience of current undergraduates. This project was built on the ten-factor design model developed during the IMPALA project (Salmon and Edirisingha, 2008). IMPALA4T was also directly linked to the University of Leicester's Centre of Excellence for Teaching and Learning in Genetics' work particularly investigating the student experience of first year Biological Sciences students (Green et al, 2009, p47-).

## **Methods**

The IMPALA4T research project consisted of: developing two sets of podcasts (Type A and B); making the podcasts available for students; researching how podcasts supported the transition process, and disseminating project outcomes. Type A podcasts were aimed to address the transition issues facing students about to start their first HE course, while Type B were for those already in their first year. A group of second and third year students in the School of Biological Sciences at the University of Leicester were involved in developing podcasts with the support of an academic staff member and a learning technologist.

Thirteen Type A podcasts were developed, covering topics such as leaving home, making new friends, accommodation, managing money and differences between school and university were made available from July 2008 through an open website at [www.startinguni.info](http://www.startinguni.info) to prospective HE applicants. Type B podcasts were made available for first year students at the School of Biological Sciences at the University of Leicester during their first and second semesters of the first year. Twenty four Type B podcasts were made which aimed to address transition issues for students in their first year, for example, progressing from first to second semester and first to second year, coping with exams, choosing modules, lab work, library projects, and productive activities in summer vacation. These podcasts were made available from the module site on Blackboard Virtual Learning Environment (VLE).

Using qualitative interviews with students, we examined how podcasts helped with transition issues. Eight students who had listened to Type A and a further eight who had listened to Type B volunteered for one-hour long interviews that were recorded for further analyses.

## **Results**

Interviews with students who listened to Type A and B podcasts revealed that these podcasts addressed issues that were significant for them and challenging for the process of transition. For those starting university, coping with leaving home and close networks of friends, making new friends, adjusting to a new life at university accommodation, managing finances and adjusting to studying as an undergraduate were particularly significant. Transition issues in the first year were concerned with settling down as an undergraduate, selection of modules, examinations, study practices and whether or not to undertake a year abroad or in industry. These were areas where first year students faced making difficult decisions (ones that caused them anxiety), and they felt they lacked necessary information and guidance.

Our interviews showed that existing sources of information and guidance contained many flaws. Although most students had access to family 'cultural capital' (with at least one family member with HE experience), such sources were not very useful in the specific environment of courses in Biological Sciences at the University of Leicester. They said that other potential sources of advice were either not readily available or not well used by students: many could not identify a useful source of informal knowledge and advice to support their transition.

The students believed that the podcasts, particularly as sources of captured informal knowledge and experience, have the potential to aid their successful transition to HE. The students attributed particular legitimacy to the podcasts, as they helped them to hear the opinions of their peers with firsthand knowledge and experience of the situations they described. Podcast technology therefore was successful in IMPALA4T in capturing informal knowledge and opinions drawn from experience. Students believed that the hot knowledge in the podcasts help them in their transition including sharing new information and perspectives, advice regarding positive behaviours, the reinforcement of existing knowledge and behaviours and the provision of emotional reassurance. The fact that all the information in the podcasts was drawn from other students' direct experience meant that many students we interviewed were willing to integrate the information and advice into their own transition.

#### *Podcasts in the context of sources of information to support transition*

The relevance of podcasts for students' transition to HE needs to be contextualised within the broad range of sources of information that students use to aid their transition. Students discussed their use of three categories of information and sources: formal, informal and semi-formal.

Formal resources are available to students from official university sources; they consist of highly structured and factual information, which Ball and Vincent (1998) called 'cold' knowledge. These include various printed material and websites produced by the authorities in the university, formal information relayed by lectures and university officials, for example on open days. Although all students used such material, they were critical of this information as lacking contextual and more personal information. Common characteristics of such information, according to students' perception were that they were: uninteresting, difficult to digest and devoid of direct experience of students, and that lecturers' experience on these matters were out-dated.

The second category of resources is more informal. These include information from family members and friends who have been through university, or when students are already in the university, consulting their peers. These are unofficial resources and accessed in an informal environment. These are the once that Ball and Vincent (1998) considered as 'hot' knowledge, which is based on personal experience and opinions, rather than cold, official knowledge. These sources also had their limitations. They can be highly subjective, students feared that they may not get the necessary facts, or at worst they might hear something that is not simply true, especially listening to their peers. This was the case for those who are first in their families to go into higher education, with regard to the content of Type B podcasts.

In between formal and informal sources lie a third category that we call semi-formal resources. These are officially provided, but students access them on a more personal basis. Examples are personal tutors and peer mentors who can provide advice on a more personal basis. Podcasts that we have developed for IMPALA4T research fit into this category. These sources have the advantage that they do provide the opinions and experiential perspective of hot knowledge, but they are officially provided and therefore explicitly made for all students. They can be monitored for quality and accuracy. They can provide multiple subjective viewpoints which can mitigate the lack of objectivity. We suggest the term 'warm knowledge' to distinguish the knowledge inherent in semi-formal sources (and in our IMPALA4T podcasts) as it lies between cold and hot knowledge of the other two sources.

### *A model of transition process*

Drawing on the evidence from Type A and Type B interviews and our other work on student transitions (Green *et al.* 2009), we developed a model of the HE transition process. The transition process consists of an initial transitional phase in which students apply to universities and choose which one to attend, through a middle phase in which they begin their courses, into a final phase where, following the initial settling in period, they attempt to engage further with what is required of them in the HE environment, especially as they advance into their second (and even third) year. The initial phase consists of two stages that we identify as 'information seeking' and 'inspection' while the middle phase consists of further two stages that we term 'locating' and 'adjustment'. A new HE entrant goes through these transitory stages from school or college until they embark on an HE course. The final phase consists of two more stages - 're-adjustment' and 'structuring' - where a new HE entrant begins a new social and academic life at the university. IMPALA4T podcasts covered all the stages of the process of transition that we have identified, except for inspection, which involved students' actually visiting the HE institution.

Students who listened to Type B podcasts described the existence of a far more extensive period of uncertainty and transition. The final stage involves continued adaptation to the learning environment after early assessments such as first essays and January exams and the critical reflection that the results bring, which is a re-adjustment. There is a restructuring for the future stages of the course, through module selection, planning for the summer, and towards final destination. This study indicates that student-created podcasts could support the final stage of transition.

### *How podcasts helped in the transition process*

The podcasts can, potentially, avoid the problems that other semi-formal resources have faced. By being accessible from anywhere with a suitable internet connection, they are easier and quicker to access than personal tutors or peer mentors with whom meetings must be arranged or e-mails exchanged, and can be used by students before they attend the university. Furthermore, since they are edited together from several interviews incorrect information can easily be avoided and interesting and relevant voices from different contributors can be provided to everyone, which would be difficult to manage with the peer mentor scheme or with personal tutors. Thus, the podcasts can provide a useful complement to other resources used to assist with the transition process. All the students agreed that the podcasts could be of use to them as sources of opinions, perspectives and information that they could use whilst adapting to the higher education environment and making crucial decisions for their future.

## **Conclusions**

We carried out the IMPALA4T research project to examine how student-created podcasts can support new HE entrants' transition from schools and colleges to university, and for those already some way into their first year in making a successful transition into and within the higher education environment. From our results, it was clear that the podcasts created for IMPALA4T project covered a range of issues with which the students interviewed had problems, both at the point of entering the university and during their first year of study. It was also clear that existing sources of information and guidance available to the students contained many limitations, leaving a gap that can be filled by different materials or programmes designed to aid students in their extended transition into higher education.

The evidence from the interviews showed that the students believed that the hot knowledge contained within the podcasts could serve a number of roles within their process of transition. These included conveying new information and perspectives, offering advice regarding positive behaviours, and the reinforcement of existing knowledge and behaviours and the provision of emotional reassurance. In each case, the status of the podcasts as sources of captured hot knowledge and the fact that all the information in the podcasts was drawn from students' direct experience, meant that many students interviewed were more willing to integrate the information and advice into their process of transition, and the podcasts were more effective. The approach that described here depicting how podcasts could be incorporated into the HE transition process provides a systematic approach in making decisions on developing podcasts to support transition. It puts the primary focus on the key stages of transition that are most important in particular contexts before allocating resources to develop podcasts. Once the podcasts have been developed and made available to students, their content remains static unless they are constantly updated. We suggest that podcasts be made available together with Web 2.0 tools (such as blogs or wikis) as a mechanism to keep the podcasts up-to-date. Tutors can add comments on important points made in podcasts, while other students can add comments to elaborate certain brief points made in podcasts.

Our students found that the podcasts provided them with benefits for their process of transition into HE. Given the small number of students from one subject area interviewed in this pilot project, it would be useful to conduct a larger study representing different academic disciplines, from a wider cross section of HE institutions, to examine the applicability of our findings to the wider HE sector. We also recommend further research to examine the potential benefits of using other social software tools to capture and disseminate 'hot' knowledge.

### **Session outline**

**Presenters:** (10 minutes) Introduction to the rationale behind the study and the approaches used to produce podcasts and collect and analyse data.

**Presenters:** (10 minutes) We will play examples of the two types of podcasts clips to illustrate the issues covered by the project.

**Whole group discussion:** (10 minutes) We will then open up discussion from the audience focussing on how this approach could be combined with other ways of supporting students.

### **References**

- Ball, S.J. and Vincent, C. (1998) "I heard it on the grapevine": "hot" knowledge and school choice, *British Journal of Sociology of Education*, 19: 377– 400.
- Cane, C & Cashmore A.M. (2008) Students' podcasts as learning tools. In Salmon G & Edirisingha P (Eds) *Podcasting for Learning in Universities* (Ch 14) London: Open University Press / McGraw Hill
- Green, P., Cashmore, A., Scott, J. & Narayanan, G. (2009) Making sense of first year student life: transitions as ethnographic process. In Leibowitz, B, van der Merwe, A, & van Schalkwyk, S (Eds) *Focus on First-Year Success*. (pp47-56). Stellenbosch: Sun Press.
- Hutchings, M. (2003) Information, advice and cultural discourses of higher education,. In L. Archer, M. Hutchings and A. Ross (eds.), *Higher Education and Social Class: Issues of exclusion and inclusion* (pp. 97–118). London: RoutledgeFalmer,.
- Robotham D., & Julian C. (2006) Stress and the higher education student: a critical review of the literature. *Journal of Further and Higher Education*, 30(2); 107-117
- Salmon, G., and Edirisingha, P. (Eds) (2008) *Podcasting for Learning in Universities*, London: McGraw-Hill and Open University Press.