
IT Students' Orientation: A challenge accepted.

Clare Atkins

NMIT
Hardy Street,
Nelson, 7010 NZ
clare.atkins@nmit.ac.nz

David Ayre

NMIT
Hardy Street,
Nelson, 7010 NZ
david.ayre@nmit.ac.nz

Mark Caukill

NMIT
Hardy Street,
Nelson, 7010 NZ
mark.caukill@nmit.ac.nz

Matthias Otto

NMIT
Hardy Street,
Nelson, 7010 NZ
matthias.otto@nmit.ac.nz

Mary Proctor

NMIT
Hardy Street,
Nelson, 7010 NZ
mary.proctor@nmit.ac.nz

Abstract

"Orientation Week" is a well established tradition in New Zealand tertiary education institutions and done well it is increasingly being recognised as important in both retaining students and contributing to their future success. Reflecting on previous years' orientations prompted the IT teaching staff to rethink the traditional form it had taken and as a result "IT Challenge Week" was organised. This was a series of fun but challenging tasks, involving all students, intended to encourage team work, problem solving, socializing and orientation to the services offered by the Institute and the wider community. Although not initially planned as a research project, the anecdotal and observable success of the Challenge Week has led the staff to consider the whole concept in more depth, not least how more traditional teaching activities may be enhanced by taking a similar approach. This paper details the rationale for the activities, based on observation and feedback and describes improvements that will be made for future years.

Keywords

Student retention, student orientation, student engagement, serious fun learning, IT education

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Introduction

The introduction of students to the basic information and networks necessary to survive the first few months of a new academic programme has long been established and enshrined in tertiary institutions' as 'orientation week'. With the current emphasis in New Zealand on the retention of students and the successful completion of courses, increasing attention is being paid to activities which would appear to encourage both. A synthesis of 146 international studies undertaken by two New Zealand researchers strongly suggests that successful orientation experiences which "facilitate both social and academic integration" will "improve academic outcomes." (Leach & Zepke, 2003 p 5). In addition they report strong evidence that orientation programmes can "provide anticipatory socialization, whereby individuals come to anticipate correctly the values, norms and behaviours they will encounter..." which sits alongside their observations that "...outcomes improve where institutions make personal contact outside classrooms....including facilitating social networks and promoting social integration..." (Leach & Zepke, 2003 p.4)

Although the IT faculty at NMIT were initially unaware of this research, common-sense, experience and personal observation, all of which were later supported by these suggestions, informed their discussions as they met to design the 2010 orientation programme for new and returning students. A lack of enthusiasm for, and an acknowledgement of the unengaging nature of previous orientation sessions, was tempered by the recognised importance to the students of much of the information. Alongside these somewhat negative feelings was a desire to impart to students the fun, the challenge and the rewards of studying IT. Staff

members were already keen to see how "serious fun - serious learning" (Atkins & Caukill, 2009) could be translated into wider practice and how 'the fun theory' as epitomised by the serious but lighthearted Stairway Piano (Funtheory, 2009) could be utilised to design an engaging orientation experience which could be the starting point for re-thinking some of the more traditional educational activities. The concept of the orientation-activity focussed IT Challenge Week was born.

Rationale and Initial Design

The idea for the IT Challenge Week grew from a perceived level of dissatisfaction and apathy around orientation among both the IT staff and students at NMIT. While the Student Association organised fun and social activities across the campus, the sessions specific to academic orientation, for which staff had responsibility generally consisted of guided tours of the support areas, the library and a brief introduction to the most essential information from the Programme Leader. As a result, individual staff, particularly those teaching introductory courses, came under pressure in the first few weeks of the year 'shepherding' new, and sometimes returning, students.

One aspect of orientation that was a particular problem concerned the student laptop programme. Since 2007, each student in an IT programme at NMIT is issued with a laptop for the duration of their study. The laptops are imaged with the basic software required by all IT students over the summer break and (re-)issued to students at the beginning of the year. Each laptop user has to be registered with the NMIT network and configured appropriately. In previous years this activity had been plagued by delays caused by bureaucratic

and technical hurdles, as well as bottlenecks at the issuing office. This in turn caused a great deal of distress and considerable strain for all concerned, the students, the academic staff (some students still didn't have working laptops some weeks into the semester) and the issuing and technical staff. All staff had agreed that a better way had to be found.

Two other important orientation activities concerned the use of NMIT's Learning Management System, NMIT Online and ensuring that the rules governing the student IT network were absorbed. Although NMIT Online is widely used within the IT programme, traditionally, very few students bothered to register a preferred email address on their NMIT Online account. This had always created problems for class-wide urgent notifications. In addition, students had to be constantly reminded to check NMIT Online for up to date information and very few would take advantage of RSS feeds. Likewise, ensuring that students had read and were cognisant of the network rules, is akin to the average user reading the EULA thoroughly before the installation of their software! Of course, providing every student with a copy of the rules and disciplining the rule breakers was valid under the 'ignorance is no defence' argument but the staff actively wanted the students to take a professional and ethical interest in the rules that governed their online behaviour.

Obviously, an introduction to the campus and to the wider community for students from outside the region, was also a required outcome of orientation. Various student support services, including the Students Association and the Library Learning Centre needed to be placed on new students' maps together with a number of businesses, retail, social and technical

which they would be using during the course of their study. Staff also felt that it was important for all students to be able to recognise the academic and support staff connected to the IT programme.

The intention of the IT Challenge Week then, was to provide an enjoyable and stimulating orientation to both NMIT and to the IT programmes. The 'mission statement' for the week, while never specifically articulated as such, can be summed up as:

To provide fun, challenging, social and enjoyable activities that will:

- familiarise students with key NMIT facilities, e.g. the library, NMIT Online, Student Support Services, IT infrastructure and policies,
- ensure that all students have a working laptop in time for the start of formal classes
- create a sense of community between students of all levels and between students and staff,
- introduce students to some parts of the wider Nelson community
- provide opportunities for students to use IT for creative expression and fun.

Inspired by generally positive feedback from individual final year students, it was hoped that participation in the IT Challenge Week would appeal to students of all levels and and it was agreed that the first week of the teaching year would be devoted solely to these activities. In order to ensure that all the outcomes were

adequately covered, activities that would address all of these areas were brainstormed by staff and developed over a number of planning sessions in late 2009. These sessions were in themselves very valuable in helping to strengthen the teaching team as they were engaging and created energy and momentum. In particular, the team became excited that they were breaking new ground for the Institute and both hope and confidence grew that staff enthusiasm would infect the student cohort and have beneficial effects that went beyond the actual orientation week itself.

Activities

It was clear that the activities needed to be both engaging and useful for all students and in order to encourage the returning students to assist the newcomers it was decided to organise the students into teams of 4 - 6 to complete the activities. Each activity would attract points for the team and a 'winning' team would be rewarded on the final day. Each team would consist of two year 1 students and at least one student from each year 2 and year 3. In this way, one of the key objectives of community building, had been addressed through the setup of the Challenge week participation itself.

Once the ideas were distilled to a set of 10 distinct activities, one staff member was assigned to each activity with the task of detailing and eventually setting it up. It was decided that a one page "Task Sheet" be created that would be handed out to each student team on the first day of the Challenge (See Appendix 1). The sheet also contained areas for scoring, and each team would return it by the week's end along with some self-assessed scores. It was envisaged that the scoring process was to be light-hearted and subjective and

that, while special prizes would be awarded to outstanding work, all teams would receive a prize of some kind.

One of the first tasks for staff was writing a brief of their assigned activity. In addition, each task had to have a measurable outcome, the "Evidence", plus a possible score for (part) completion. The evidence had to be simple, fair and easy to assess, as the evidence had to be checked and assessed in a short time on the last day of the Challenge. It turned out that some tasks' outcomes included all team members' success (e.g. receiving and setting up each team member's laptop), while others had a single team-outcome, such as a short video production.

Implementation

All students had been advised that although the first week of the semester had no scheduled classes, their presence on campus was still expected. It did not seem in the spirit of the exercise to make attendance compulsory but by being deliberately a little vague as to the arrangements for the week, the team hoped to at least ensure a high level of attendance on the first day particularly as all students would be keen to uplift their laptops.

The first session took place on the Monday morning in a lecture theatre and was attended by 70+ students and all staff. The students were informed about the purpose and logistics of the Challenge Week, given the instruction sheet, organised themselves into 14 teams, adopted a team name and identified a team leader. One highlight of the session was the staff introductions - rather than spending too long talking about what they taught, each staff member was asked to speak 'two

truths and a lie' about themselves - the audience (both students and staff) were then asked to identify by a show of hands which was the lie. This initial exercise, which served as our ice breaker, enabled those that did not know the staff to learn a little about them while the returning students interacted with the staff through teasing. The use of humour by staff here was critical in setting the scene as the light hearted but enthusiastic approach that we wanted students to emulate was modelled. Everybody learned something new!

After this session, the students were, to a large extent, left to their own devices, with just various deadlines or specific targets to meet. Each team was allocated a staff mentor who would help if necessary but in general students were expected to solve problems themselves and find any additional information that they needed on NMIT Online. Several rooms had been booked for them to use as a base and some activities ran throughout the week while others had to be completed within a certain time frame. All challenges had to be completed by Thursday evening so that staff could meet on Friday morning and decide on the prize-winners. Staff and students then came together for a shared lunch before heading into the final 'awards' session.

The final session on Friday afternoon brought everyone back together and each staff member gave a quick debrief on the outcomes of their challenges. The answers to some of the quizzes were shared, the T-shirt design was voted on, the YouTube videos were watched and the punishments were read out. The staff had ensured that although the 'winning' team was clearly acknowledged, all teams received recognition for something positive. A large number of 'prizes' from USB sticks to free coffee cards had been donated by

local business and these were distributed across all participants. Much laughter, a high level of energy and a sense of wonder at what had been achieved in three and a half days was apparent. Everyone, staff and students alike, appeared to leave with a sense of achievement and enthusiastic anticipation for the start of classes.

Observations

The observations in this section are a mixture of those that were immediately apparent and others that occurred to us over the following months. Clearly, the observation is on-going and retrospective reflection is increasing the team's understanding of what happened. Some areas for improvement have been identified, such as choosing a more suitable room for our introductory session, ensuring that all standard NMIT induction information is included and ensuring that more international students are engaged with the week. However, the general opinion from IT staff, IT students and the NMIT community is that the week provided a successful experience on a number of levels. Some of the more obviously successful areas are described below.

Laptops

The resounding success for staff concerned the issuing of laptops, something which had proved very problematic in previous years. During the challenge week a tight timetable with bookable slots for issuing laptops has been set up, where the emphasis was on the students to get their paperwork in order and book a slot for getting a laptop as early as possible, as most, if not all, further challenges were computer-based. Despite Institute enrolment problems which negatively affected a number of students, the fact that the laptops

were issued speedily helped to give students a positive experience and gave staff the time to sort out any problems. All but two of the students who registered for teams successfully completed the laptop challenge and for the first time, staff were able to begin formal classes with almost everyone having a functioning laptop.

Two things contributed to the success of this activity. One was the employment of a current third year student to build the laptop images for 2010, prepare the laptops and bags for issue and to be on hand throughout the week to troubleshoot any problems for individual students. The second was the incentive, inherent in the team environment, to help each other - it was in the team's interest to have all their members' laptops up and running and consequently second and third year students who were already familiar with the technical environment could often assist the others. This in turn relieved some of the pressure on both staff and the employed student who could thus focus on 'real' problems rather than on straightforward queries.

Treasure Hunt

There were a number of objectives underlying the Treasure Hunt. These included getting the students to

- work together to follow instructions and solve problems,
- discover relevant student services on campus,
- find useful businesses in the CBD and,

- use relevant technologies such as Google maps, NMIT Online, encryption, and binary maths to do so

A simple three wheel paper form of Enigma encoding was used to encrypt endpoint names. The students had to follow the operating instructions to decipher the information, which would lead them to the appropriate business where they had to find a clue. In retrospect the use of the Enigma encoding for all questions did become a little tedious and next year this may be restricted to just one or two clues. Picture proof was encouraged and lead some fun and interaction with business staff. It was suggested that photos should be posted on the team blog and points were also given for full group participation which encouraged the group to involve all members.

The companies that chose to be involved with the treasure hunt were enthusiastic about the groups coming into their businesses. They were cognisant of the benefits of having IT students knowing about the business, and for the local ones, knowing where the business was located and actually coming onto the premises. The buy-in was such that all the companies that participated, also donated prizes for the challenges. Student Services and the student union (SANITI) were the two campus endpoints of the hunt. Anecdotal evidence from Student Services has the visits by our students up on previous years while SANITI was sufficiently impressed that they brought the Week to the attention of both NMIT Senior Management and to the NMIT Council.

Use of NMIT Online

Requiring students to access NMIT Online to gather information about the activities and to post some of the answers, was an excellent introduction to the use of the Institute's Learning Management System (LMS). It encouraged them to consider the LMS as the first port of call for information which appears to have improved their use of the system in formal courses.

Students were also challenged to set up a realistic profile, including a picture and an email contact. This had a pragmatic purpose as well. In previous years, contacting students for various course purposes has not been a straightforward process as there are two systems for communicating with them: email via the standard campus Exchange and via NMIT Online. These two systems are never perfectly synchronised as many students prefer to use their personal email address and NMIT by default issues standard institute addresses. By encouraging the students to update their NMIT Online profile, staff then had an accurate method of communication.

Law and Order

This exercise was an attempt to introduce students to the rules governing the use of the campus computer networks and to consider why they are in place. Obviously, the staff were not seriously interested in the proposed punishments but by treating the rules in a somewhat light-hearted fashion, it was hoped that the students would actually read and digest the rules of network participation. It was clear from some of the suggestions that the implications of breaking some of the rules had been understood as many of the punishments made a humorous attempt to make the punishment match the crime.

Other Activities

'Matching the mugshot' provided a great amount of fun and some interesting insights into personality as students attempted to match current staff to their younger and their virtual selves. The primary purpose was to enable the new students to associate a face to a name through help from the returning students. The original intention of including staff's avatars (from Second Life, World of Warcraft and others) was designed to merely make the challenge greater and more fun but in fact it had the unforeseen effect of highlighting that most staff had a virtual life, to some degree!

This emphasis on virtual existence was carried through to the Second Life challenge. More than half the students, 46 in all, managed to download Second Life, create an account and find their way around 'in-world'. Primarily designed as a fun activity, this did have several serious objectives. It is generally considered that Second Life has a large learning curve and as it is used in at least one of the IT courses, this self introduction was intended to assist with this. It also provided an opportunity for those who were already familiar with the virtual environment to pass some of their skills along. It also provided a number of opportunities for unintended problem solving (e.g. a new graphics driver needed to be installed) but it also gave students a glimpse into a new and exciting IT environment. Learning how to behave, create a network and generally navigate through immersive 3D spaces, are skills that IT professionals are very likely to require in the near future.

A number of the IT courses now use wordpress blogs as an integral part of their delivery and assessment

mechanisms and while learning to create and update a blog is not particularly challenging, remembering to use it to record team activity - normalising it as an adjunct to classroom study - does tend to prove difficult for some students! It was hoped that by encouraging the use of a blog as a team diary, some of the barriers would be overcome. As it turned out the blogs were fun to create and to read and made demonstrating each team's work very easy. All teams created a blog and most fulfilled the minimum requirements laid out in the challenge.

It was not intended that all teams would complete all activities and we had believed that most would only attempt one of the 'creative' challenges - creating a TALOS logo, a T-shirt design or making a video for YouTube. In practice several of the teams attempted at least two of these and three teams did all three. All these activities tapped into the creative nature of IT and the videos particularly added significantly to the feel of the final awards session. They were fun, well implemented given the time available to create them and inspiring to staff and students alike.

General

The Challenge Week certainly created a 'buzz' on campus and generated significant interest in what was inspiring such purposeful activity! The Student Association in particular was both supportive and encouraging and brought it to the attention of the CE. As a result, a presentation was made about the week to senior management who are now thinking of including some aspects of it into a broader set of orientation activities for all students in 2011.

For the students, it helped to create social networks with their peers and to develop or strengthen good relationships with staff. Those new to the campus were very quickly absorbed into the community through growing friendships with other team members and found that they had a core group of people to whom they could turn for help. This helped to promote both self-confidence and self reliance and in several instances brought out unexpected leadership traits. Both staff and students gained a new appreciation of the skills and knowledge that individuals possessed.

The Student Perspective

Anecdotal evidence from those involved was that it was fun, stimulating and useful but no specific evidence was collected in the period immediately following the Challenge Week. However, when students returned after the Easter Break, they were invited to anonymously complete a short survey. The survey asked students to identify whether or not they had found the week's activities useful and more tellingly whether they would do it again. The survey only managed to capture around 66% of the students who had taken part and no claim is made for any statistical significance in the following figures. However, they do provide some interesting insights into the student view of Challenge Week.

From a possible total of 70, 46 students responded. Of these 22 were Year 1 students, 15 from Year 2 and 9 from Year 3. Interestingly while 77% and 87% of first and second year students said they would do it again, this rose to 100% for the final year students. Additionally, 90% of those who agreed they would do it again, reported that they had found it useful. Even among those who reported that it wasn't useful, there

were still those who would do it again - presumably because it was fun! An interesting observation from a final year student suggested the main reason that the first years students were the least impressed was that they had nothing against which to compare it. Those students who had experienced the orientation activities of previous years were significantly more enthusiastic.

A good number of students described the week as "fun", "entertaining", "entertaining and useful", "a good introduction" and "awesome" although two negative comments were that it was a "waste of the first week" and "too easy mentally". Perhaps the most telling comment though came from the student who said that it was "good to become familiar with NMIT infrastructure and build relations with mates, but that is all". Clearly for this student, the Challenge Week had achieved what had been intended without the students realising!

Although some did participate, the largest cohort of students missing from the Challenge Week was the international one and this was a cause for some concern for staff. On talking with our international student support staff it has become clear that our Chinese students, in particular, need to know exactly why something is being carried out and what the outcomes of not attending the event will be before they will make the decision to participate. This may also be true for some domestic students and one area that we intend to improve on for next year is being clearer to students about the benefits and purpose of the Challenge.

Future Plans

Planning for 2011 is already underway and a number of new ideas are being considered as well as refinements to the original concept. The fundamental principal of providing fun activities to help our students socialise, foster a sense of self-reliance and self-help within the student community, orient them to the important parts of NMIT and model the kind of problem-solving and sense of enthusiastic enquiry that we hope they will bring to their studies, remains unchanged. How these outcomes are achieved is still under discussion and review. Several aspects that have already been identified are briefly described below.

One current initiative at NMIT is the creation of a Learner Journey profile and the mentoring of students at all stages of that journey. One suggestion put forward is to challenge students to use software like Mahara (<http://mahara.org>) to create an extended profile of themselves and their interests that would create a foundation for their Learner Journey. In subsequent years, returning students could be encouraged to update their e-portfolio with reflections on the past year and goals for the new one.

Another suggestion is to build a challenge around some aspect of our Library Learning Centre : something that involves discovery and will increase their understanding of the LLC facilities and services. Alongside this it might be useful to include an activity centred around how to carry out searches on the internet and how to decide whether the information found is valid or not. This would support our international students in moving to a different educational model and would also benefit those who are returning to study after some time. Part of this challenge could also be to search for information

that is not easily found via Google, e.g. identifying an image or an audio clip.

Rather than focusing only on design based challenges, such as the T-Shirt and logo, a speed programming or programming bake-off competition, using some very simple facilities that students are likely to be already familiar with, or which they can quickly gain from other more experienced students in the same group, could offer an interesting alternative. Additionally, a physical group-building activity, as might be carried out as an introductory game at an outdoor adventure centre, could be included. Another aspect that wasn't explored in 2010 but that could be integrated into a variety of activities was the use of social media technology such as Facebook or Twitter. Of course this could be as much as a challenge to staff as to students!

The team for 2011 had considered inviting senior students to assist and advise in the planning and running of activities for next time. However informal conversations with current final year students suggests that this may be counter-productive. Part of the attraction for these students was seen to be the element of surprise and the real challenge for them in seeing themselves as the 'experts'. Clearly, this was an important confidence-building exercise for many of the final year students and one which it may be best to preserve.

Conclusion

The IT Challenge Week had been envisaged as providing a fun way of ensuring that students gained vital orientation information while also encouraging the creation of social networks across the complete body of IT students. Observations from staff and students

would suggest that these objectives were very well met and that the week was a great success. The staff experienced the motivational power of tasks and activities that were not only closely matched to student interests but were presented in an engaging and largely self-directed manner. The students gained useful information with little pain, achieved some personal growth and increased their social networks. Together staff and students established a framework for useful and acceptable interaction which could be translated into the learning environment for the coming year.

A number of improvements and new initiatives have been identified for next year. There is a clear need to encourage participation from an even larger number of students, in particular the international student cohort, not only to improve the induction experience but so that all students can reap the on-going benefits that IT Challenge Week has been demonstrated to bring.

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Appendix 1 - IT Challenge Week Activities

Laptops

By week's end each team member will have a working SBCT laptop. Get your paperwork in order, pick up a laptop, set up your login account, ensure printing, wireless Internet access etc. works, then help other members.

NMIT Online

Learn how to use NMIT Online. Locate the IT-Challenge page. Find instructions for the IT-Challenge activities. Each team member needs to update their Profile by entering the preferred mail address and a picture!

Treasure Hunt

Put your thinking caps and running shoes on! In this challenge you must solve clues, to direct you in the various tasks, to finish the hunt of NMIT and Nelson CBD with the best score.

Blog

You will create a wordpress blog to record the progress of your team. Further details on NMIT-Online.

Get a 2nd Life

By week's end each member of your team will have a Second Life account, will have accessed Second Life with their avatar and offered friendship to Arwenna Stardust. Further details on NMIT Online. Bonus awarded to team for completing the SL Treasure Hunt (instructions available in Second Life)

IT School T-Shirt Design

Create a t-shirt design for the NMIT IT student group. It can be anything but must be based on the theme of IT.

Law and Order (well sort of)

We have the rules, now we need you to decide on the punishment... Find the 'Rules governing student use of the NMIT computer network' on the NMIT website. Have a look at the listed examples of misuse and suggest a suitable consequence for each example. Points awarded for the most original and entertaining consequences, so get creative!

TALOS Logo Design

Create a logo that represents our TALOS network, in three sizes: full size on single A4 page in Microsoft Word docx format, as a 128x128 pixel png file, and as a 32x32 pixel png file.

Get Yourself on YouTube

Your task is to make a video of approx. 90 seconds describing the five hottest things about IT professionals. Choose your own angle, try humour, a suit look, a geek look, or whatever works.

Match the Mugshot

In this challenge you will need to match the staff member's name with their current picture, baby picture, and their avatar. The more accurate you are, the better your group will do. Complete the online quiz to submit your answers.