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Future Voices in Public Services
Nancy H. Dewald, Column Editor

The Future Voices in Public Services column is a forum for students in graduate library and information science programs to discuss key issues they see in academic library public services, to envision what they feel librarians in public service have to offer to academia, to tell us of their visions for the profession, or to tell us of research that is going on in library schools. We hope to provide fresh perspectives from those entering our field, in both the United States and other countries. Interested faculty of graduate library and information science programs, who would like their students' ideas represented in these pages, are invited to contact Nancy H. Dewald at nxd7@psu.edu.

Neda Zdravkovic is studying at The School of Information Management at Victoria University of Wellington, New Zealand. Here she describes the student-centred and activity-based teaching approach used in some information literacy courses, including analysis of the student feedback received.

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The School of Information Management at Victoria University of Wellington teaches the only postgraduate library studies programme in New Zealand. Students take courses on campus and by distance learning, using CD-ROM and web based materials, as well as voice over IP conferencing. The School is a member of the WISE (Web-based Information Science Education) consortium, sharing online courses with similar programmes worldwide. From 2010, the current MLIS qualification will be replaced by post graduate Certificate, Diploma and Masters degrees in Information Studies. The broad based programme allows students to specialise in Library Studies or in Archives and Records. Students come to the School from Asia, the United States, and New Zealand.

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Spicing Up Information Literacy Tutorials: Interactive Class Activities That Worked

Neda Zdravkovic

Introduction

Constructivist learning theories promote students' engagement as one of the key factors in successful learning and knowledge building. Research indicates (Manuel, 2002; Holliday & Li, 2004; Skiba & Barton, 2006) that the short attention span of adult learners, their need to 'learn-by-doing', interact and multitask in the learning process can be accommodated with a positive outcome by introducing interactive class activities.

Information Literacy (IL) presenters in an academic library setting face the challenges imposed by limitations of a one-shot library session. Opportunities for experimenting with a variety of modes of

delivery in order to create the one for which presenters and students feel genuine enthusiasm are restricted by the factors already acknowledged in the existing library literature:

- It is difficult to address different learning styles during a fifty- minute long IL session since there is not much time allowed for performing activities (Dalrymple, 2002, p. 271);
- Librarians do not get multiple opportunities to build a rapport with a class or group of learners, or to follow up on the progress of their learning (Deemer, 2007);
- Students attend IL sessions when library components are compulsory and rarely spend time learning outside the core curriculum (Deemer, 2007);
- Generation Y students with highly developed IT skills are not aware of their information needs and therefore do not value the benefits of attending library sessions (Macklin, 2001; Julien, 1998);
- Time pressures imposed by faculty do not allow preparation of interactive student-centred activities resulting in a teacher-centred delivery (Julien & Boon, 2002).

Teaching has often been discussed not only as a technique, but as an artistic and complex skill (Schunk, 2008) that requires continuous perfecting and a large amount of creativity invested. For example, Tauber, Mester & Buckwald (1993) and Antonelli, Kempe & Sidberry (2000) promote the use of theatrical techniques in teaching and the role of presenter as an actor performing on a classroom stage. Trefts & Blakeslee (2000) and Petry (2005) highlight the effectiveness of incorporating comedy and humour into library instruction.

The literature on IL teaching approaches practiced in an academic library setting is rich with recommendations and examples of interactive teaching techniques. Several recently published titles in the field provide a collection of working examples of the applied student-centred IL interactive activities. Sittler & Cook (2009), Hunt & Birks (2008, 2003), Gradowski, Snavely & Dempsey (1998) are some of them. However, only a few among these originate from New Zealand, such as Pang & Begum (2009).

Wang (2006, 2007), Darlymple (2002), Koufogiannakis & Wiebe (2006), Moniz (2007) highlight a necessity for further, empirical research into interactive IL instruction practices. The following still requires further discussion: How to apply multiple interactive class activities within a short timeframe of a one-shot IL session without sacrificing content delivery? How to create enjoyable, engaging learning experiences for our students and ensure that, each time they leave the classroom, they leave inspired and feeling positively about attending more IL sessions in the future?

This article describes six working examples of interactive teaching activities applied within a variety of generic IL courses presented at the University of Auckland Library, New Zealand, between January and October 2009. Both challenging and successful working practices during the delivery of the student-centred activities are discussed. The article provides practical solutions and examples of how, despite recognised challenges, several interactive IL class activities can be performed within a short session timeframe, resulting in an engaging learning environment, increased student interest in IL programme participation and positive student feedback.

Student-centred pedagogy at the University of Auckland Library

The University of Auckland Library consists of thirteen subject specialist libraries and three Information Commons across four campuses. Multiple IL programmes are offered as extra-curricular (generic), inter-curricular (course-related), intra-curricular (integrated) and stand-alone curricular courses. In the period between 1 January and 30 October 2009, according to the Library Online Electronic Booking Database official teaching statistics report, 1822 information literacy sessions were presented to 27,368 students by 70 teaching library staff.

In order to ensure a collaborative learning environment and to improve student learning, the Library has redesigned the IL courses offered within the extra-curricular (generic) programme in the period June 2005 – February 2009. The programme redesign is based on sociocultural learning theories with a student-centred approach (Wang, 2006, p. 6). During this process, a variety of student-centred teaching and learning exercises have been incorporated into each course structure, such as individual and group problem-solving, discussion/brainstorming, and exploratory jigsaw-model based activities (Wang, 2006 & 2007). The redesigned IL course structure is used as the compulsory component of the IL content delivery by all presenters involved in the Library's generic IL programme.

At the end of each session, students are asked to fill in an evaluation form. Their comments and evaluation ratings are recorded and uploaded into the Library Online Electronic Booking Database where they remain permanently stored.

The activities presented in this paper have been trialled in the generic IL instruction programme offered by the University of Auckland Library in 2009.

These short, quick and snappy exercises were executed 'on-the-go', as the opportunity arose and depending on the responsiveness of students, individual workflow, and dynamics within each session. Where the student collaboration, engagement and attention had already been achieved during a session, there was no need for using the additional activities. However, sometimes the regular flow of IL sessions was not sufficient and, there was a need for a 'spice', an enhancement, in order to speed up the dynamic of the class and give the 'dry' IL content a likeable personality.

Interactive IL class activities applied in a generic course programme

The activities have been found in their original form while observing academic lectures at the University of Auckland, staff training sessions offered by professional trainers outside of the University, and experienced English language teachers demonstrating their favourite methods of presenting during the Teaching & Learning Showcase Conference held in 2008 at the University of Auckland, as well as the library and information literature and online sources.

Originally created as exercises for large lecture theatres and two-hour long sessions, activities have been adjusted, as shown below, to the IL teaching content and a fifty-minute session timeframe.

Activity I: Facilitating communication – *Sticky (post-it) notes*

Purpose: to obtain immediate feedback on whether the content meets students' information needs and on the effectiveness of the teaching methodology.

Activity description

1. Before the class, a presenter places a large sticky (post-it) note on each desk.
2. As soon as they are seated, students are asked to use the sticky notes during class to write down one or two questions they may have related to the topic and to be as precise as possible in order to address the issue or topic they are truly interested in or confused about.
3. Presenter collects notes fifteen minutes before the end of the session and asks all students in the class to answer them.
4. If the amount of content delivered imposes a time pressure, the presenter can ask students to write down email addresses on their sticky notes; collects the notes at the end of the class and emails answers to the students the following day.

Application
The activity has been applied as described above in the following courses: *E-books: Searching and using electronic books, Database Searching I: Getting started, Database Searching II: Extending your skills, Library Overview & Library Catalogue*.
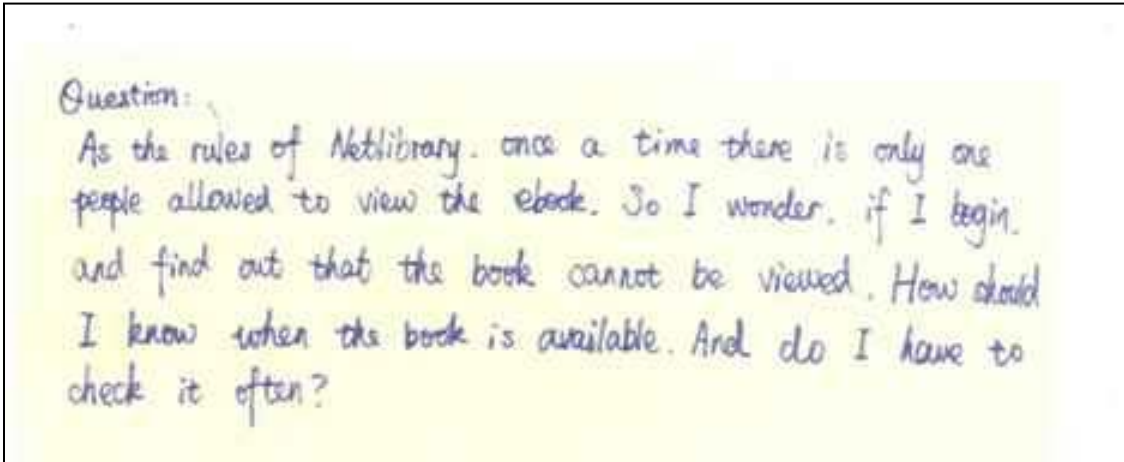
Challenges
The main concern in applying the *Sticky notes* activity is whether the students will accept this model of recording questions and whether there will be sufficient time left for the discussion and providing answers. Asking students to add email addresses to notes that are not answered during class works well, especially when questions do not relate directly to course content, or require more in-depth answers.

Outcomes
Students used the notes extensively to write down their questions. One sample is given in Figure 1.

Figure 1: Example of a student's question written on the sticky note

The rule in NetLibrary is that only one user can access one book at one time. So I wonder, if I try to open an e-book and find that it cannot be viewed, how should I know when the book is available? And do I have to check it often?"

Each time this activity has been practiced, students' overall responsiveness and willingness to contribute during a session improved. It seemed that the activity served as a clear indicator to students that their input was expected, welcomed and valued. Here are some representative comments provided by the students to the question on the evaluation form: "What I liked about this course?"

> *Ability to interact. Answers individual questions. Personal attention. Really informative and practical. Clearly structured, all questions were answered. The sticky notes were a great idea!*

Activity II: Learning reflection - *Line up*

Purpose: to assess students' prior knowledge, experience and attitude towards a subject. The activity can be carried out at any stage of a session.

Activity description
1. A presenter asks students to stand up and form a line at the front of the classroom according to their attitude towards a question, problem or a topic. For example, students who are confident searchers or have significant experience searching databases stand on one side of the room. Those who have never searched databases stand in the opposite corner or in between these two points.
2. Once the line is formed, the presenter asks participants to explain why they have selected a particular position in the line and their attitude towards using electronic resources.

Application

This activity was applied during the course *Database Searching I: Getting started*. Due to the lack of empty space for forming a long line in the computer training room used for the delivery of the IL classes, students were asked to stand up if they thought database searching was a fantastic opportunity or to remain seated if they thought the opposite. Students showed much enthusiasm during the exercise. The discussion was an excellent ice-breaker. The most frequent concern was that database searching was 'complicated'. Students clearly liked the opportunity to share their thoughts and feelings.

Challenges

Time management is essential and the activity must be completed within five minutes to allow enough time for the compulsory IL content delivery. If the topic discussed is completely new to students, they may not be able to participate. For example, during one particular session, all students remained seated and puzzled, as they had no opportunity to use electronic databases prior to coming to this class, and were unable to express their point of view.

Outcomes

The activity proved to be a welcoming opener for the class discussion on the benefits of using the library databases and a clear indicator of the students' prior knowledge on the topic. It also served well as a learning opportunity for kinesthetic learners to associate the content being discussed with the body movement and an opportunity for a library presenter to accomplish the element of the 'unexpected' at the very beginning of the session and enhance students' attention and their interest to collaborate. Here are some samples of the students' comments received during the classes where the activity was performed:

> *It was easy to follow. A great introduction to databases and ways to approach research. Should have done it last year. The presenter was very friendly and approachable. The examples and interaction. Quick and to the point. Relevant. Well taught. The course was very helpful especially as I have never had any experience using databases or the search engines before.*

Activity III: Learning reflection (role-play) - *The Listeners*

Purpose: to spark interest and concentration during the session, initiate discussion, as well as to obtain feedback on learning and the quality of teaching.

Activity description

1. At the beginning of the class, a presenter delegates four roles to four student-volunteers:
   - ***Questioner –*** this student is to compose two class-related questions and to ask the rest of the attendees to answer at the end of the session;
   - ***Agreer -*** this student is to explain to the class what information they found helpful (presented during the session) and why;

- ***Nay sayer -*** this student is to comment on an element of the session he/she disagrees with, finds unhelpful or 'boring' and to explain why;
- ***Example giver*** - this student is to give one example of how the new knowledge discussed during the course can be applied during their studies at the University of Auckland.

2. Ten minutes before the end of the session, the presenter asks appointed players to provide their examples.

Application

This activity was applied during the following courses: *Google: Getting the most from Internet searching*, *Database Searching II: Extending your skills, Library Overview* and *Library Catalogue*. At the very start of each session, the four roles were assigned to students who agreed to participate. Students regularly laughed and giggled, especially when the 'nay sayer' was called out. The activity sparked student interest and turned the session into a lively, open, interactive and challenging discussion. Ten minutes before the end of the class, role players were asked to provide their examples and feedback, and again, this was a fun way of summarising the new content covered, obtaining first-hand feedback on the effectiveness of the session and student learning.

Challenges

The main challenge while executing this activity is in time management. The activity requires minimum five and maximum ten minutes of the class time.

Outcomes

The activity has been applied during 10 different generic IL sessions. It has been enthusiastically received every time. The element of the unexpected has proved to be an infallible attention-grabber and raised students' willingness to contribute during the class. The delivery has regularly been discussion-based since the activity always provokes lively communication from the moment the roles are assigned. Here are some evaluation comments provided by students to the question: "What I liked about this course?"

> *It was funny and the lecturer has lots of enthusiasm. Well illustrated explanation. Great lecture! About the right pace, presented with a lot of energy. The course is very attractive from different activity. Teacher interacted with learners – it made it much more interesting.*

Activity IV: Problem-based learning (quiz) - *Two truths and one lie*

Purpose: to generate class discussion, stimulate instant involvement in the topic and promote collaboration and knowledge sharing.

Activity description

A presenter displays three or more statements written on the whiteboard or a PowerPoint slide. All statements relate to the new information introduced during the class. One of them is deliberately incorrect. Students' task is to recognise the false one.

Application

The activity was applied during the course *Library Catalogue*. Fifteen minutes before the end of the class, the following statements had been displayed on a Power Point slide (*see* Figure 2) and students were subsequently asked to recognise the incorrect one:

Figure 2: Example of a PowerPoint slide containing a 'false' statement

In Library Catalogue, you can search for:
1. Book title 2. Journal title 3. Article title 4.Chapter title
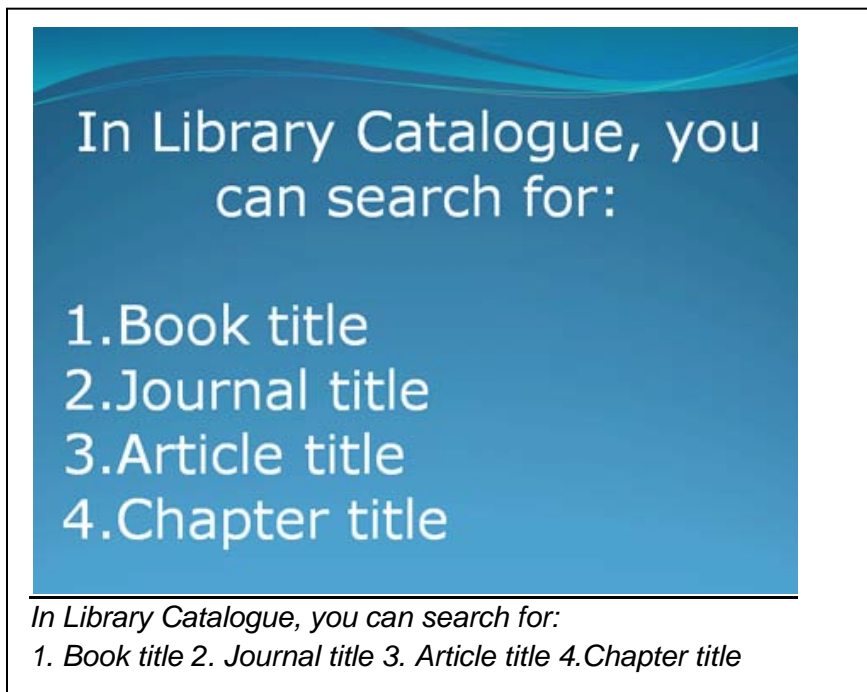
Statements number 1 & 2 are correct, no. 3 is incorrect and no. 4 is debatable. The exercise lasted no longer than 3 minutes and it provided instant feedback on students' understanding of the content covered during the session. Sometimes a student would claim a correct statement to be the incorrect one and it was a great opener for applying the reciprocal, discussion-based model of learning in order to recognise the false statement.

Challenges

A possible challenge is that a student not paying attention may retain a piece of visual information that the Catalogue is searchable by an article title. Therefore, after completing the exercise, a presenter must summarise the outcome and strongly highlight the 'incorrect' statement.

Outcomes

The activity had to be prepared for the particular IL session content and it required no more than three to five minutes of the class time for completion. Each time the *Two truths and one lie* quick quiz was applied, students eagerly participated and their attention and interest were refreshed. The safe challenge of quickly solving a riddle and recognising 'a lie' added the element of the unexpected and 'spiced up' the classroom atmosphere. Representative comments provided by students to the question on the evaluation form: "What I liked about this course?" are:

> *The detailed explanation and a little exercise to work with it. Clear and effective communication with the use of the PowerPoint, could follow details of how to get from A to B. Elaborate, but just enough for me not to get bored. It is quite a fast course and covers a lot, but gives a good base to start from. Informed, passionate teacher. Informative, interactive and challenging. Participation required. It is much better than my expectation.*

Activity V: Problem-based group activity - *The Envelope*

Purpose: to obtain students' feedback on understanding and learning new concepts, initiate class discussion and collaboration while problem-solving.

Activity description

1. Before class, a presenter writes a different question or a problem on cut out pieces of paper – one question for each student in class - and mixes them together in a larger envelope. Questions (problems) are related to the course content.

2. At the beginning of the session, students are asked to draw one question from the envelope.

3. Their task is to find the answer to their question during the course and be prepared to explain it to the rest of the class ten minutes before the end of the session.

Application

The activity has been applied during the course *Database Searching II: Extending your skills* as described above. Questions given to students in an envelope during this course are:

- *What is truncation?*
- *Where can you find the truncation symbol in a database?*
- *How can you limit your search in a database?*
- *What can you do to find more relevant results in a database?*
- *What is 'subject heading' or topic search in a database?*

At the beginning of the class, students seemed puzzled when they looked at their questions and the presenter explained that they were related to the advanced database searching techniques to be discussed during the class. Ten minutes before the end of the session, students were asked to

answer their questions. They remained silent, so the presenter asked: "Who would like to volunteer to be the first to answer?" and one girl raised her hand. She read her question out loud and explained the truncation functionality to the rest of the class. Immediately, all other students were eager to jump in and respond with their answers.

Challenges
Allowing between five to seven minutes before the end of the session for student discussion and answers is essential. The main concerns while performing *The Envelope* activity are efficient time management and ensuring that students will be able to provide correct answers to all questions distributed.

Outcomes
The activity served as a constructive way for allowing students to summarise and comment on the new content introduced during the IL course. They understood that their input was expected from the start of the session. Some of the evaluation comments provided by students are:

> *The way everything is explained clearly and effectively. Also the way everyone could interact and ask questions. Very user friendly and tutor encouraged questions and taught in a safe environment.*

Activity VI: Game-based learning - *online game Boolify.org*

Purpose: to accommodate visual and kinesthetic learning styles, initiate class discussion and collaboration.

Activity description
The original activity information can be found on the *Boolify.org* website: http://www.boolify.org/curriculum.php. At the beginning of the lesson, a presenter asks students to open up their browsers and go to the site: http://www.boolify.org and leave it opened on their desktops. The presenter opens the website on the presenter's PC, so that all students can see it on the projected screen. The presenter explains that this is an online game which will be used for exploring the effects of using the Boolean search symbols.
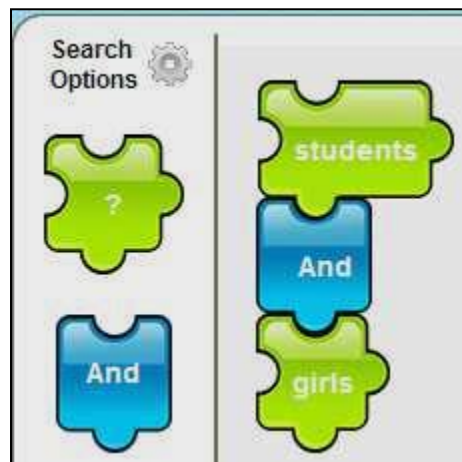
1. The presenter asks the class: "Those of you who are students, please stand up." (all attendees should stand up at this point)
   - While all students are standing, the presenter drags and drops the green puzzle piece in the *Boolify* game, types in the keyword "students" and clicks **Add**.

Figure 3: Step1

- The presenter scrolls down the page and shows the number of the results retrieved from the web: 23+ million.
2. The presenter asks the class: "Those of you who are students and girls, please remain standing. The rest of you can sit down." (1/2 the class should remain standing)
    - While all female students are standing, the presenter drags and drops the **AND** puzzle piece in the game and adds a green puzzle piece to it; types in "girls" keyword and clicks **Add**.

Figure 4: Step 2

- The presenter scrolls down the page and shows the number of results retrieved - 18 million. Explanation: ½ class standing and fewer results retrieved.

3. The presenter asks the class: "Those of you who are students and girls and born in New Zealand, please remain standing. The rest of you can sit down." (1/4 of the class remains standing)
    - While all female students born in New Zealand are standing, the presenter drags and drops **AND** puzzle piece in the game, adds a green puzzle piece to it and types in "zealand" keyword and clicks **Add**.

Figure 5: Step 3
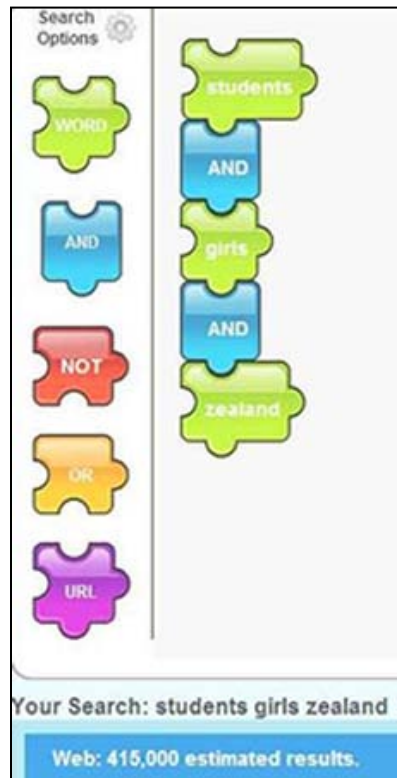
- The presenter scrolls down the page and shows the number of results: 400+ thousand retrieved. Explanation: 1/4 class standing and at the same time fewer and more specific results retrieved.

4. The presenter asks all students to sit down and use the *Boolify* online game individually, only this time to combine their own keywords using OR symbol between them, compare the difference in number of results retrieved and report back to the class their findings.

Application
The activity has been applied in the course *Database Searching II: Advanced* as described above, step by step. Although the activity consisted of several steps, it took five minutes to complete during the session. Additional two to three minutes were assigned for student discussion and feedback on using the OR operator in the *Boolify* game.

Outcomes
Students participated with surprising enthusiasm and excitement, and, according to their feedback, found the activity a fun and interactive way to adopt new information about using Boolean search symbols. Here are the comments provided by the students on the question: "What I liked about this course?"

> *Kept the class interactive which was very good as there was no element of 'boring'*
> *in the class. This was the best course in that - we were encouraged to do our own*

> *searches ... this hit two birds with one stone 1) learned to use the systems AND 2) advanced our own research. Very good use of time! Nice and quick to learn. Very visual. Little tricks. Interactive nature – trying the searching ourselves. Was easy to understand. Simple, interactive and interesting. Good thing I booked this course!*

Conclusion

The application of the activities as additional to the compulsory generic IL course structure showed that it was possible to perform between three to five different interactive elements within a fifty-minute long, one-shot library session. To achieve such intense dynamics of the delivery, rigorous time management proved to be a necessity together with thorough planning and preparation, not only at a course structure level, but on a day-to-day basis. Our findings, based on the described IL teaching experience, highlight the following pedagogy 'that worked':

- Students need and appreciate positivity, the use of positive expressions and viewpoints, as well as a presenter's enthusiasm and genuine interest in the topic.
- Students will associate the enjoyment of the library instruction (situational incentive) with learning the new IL content.
- Students will positively react to the use of engaging, humorous and theatrical tools: funny characters and cartoons applied to the subject matter, body movement, role-play, captivating visual symbols and images, attractive digital technologies already familiar to them.

Finding interesting examples and preparing interactive activities is time consuming and requires additional energy and research. Although it is essential to invest creativity into teaching, performing and trialling new learning activities is a risk for a library presenter while introducing unpredictable situations during the IL session. The student-centred, interactive teaching practice presented in this paper and applied in the generic IL course programme offered at the University of Auckland Library has proved that it is a rewarding risk students will positively and enthusiastically respond to.

Recommended sources of interactive student-centred activities

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