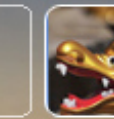Toronto, Canada
ISRRT World Congress
and CAMRT Annual General Conference
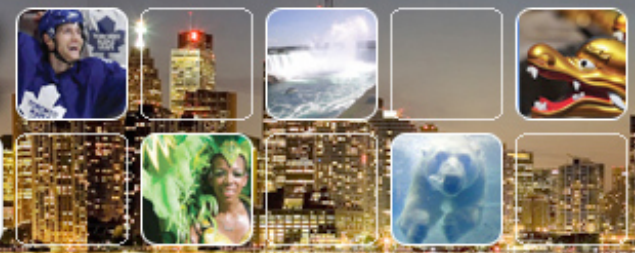June 7-10, 2012

Picture Yourself
Here

Vivien Gibbs

Janice St John Matthews

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Toronto, Canada
ISRRT World Congress
and CAMRT Annual General Conference
June 7-10, 2012

Picture Yourself
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# Disclosure

There are no conflicts of interest to disclose

# Learning Objectives

:

At the end of this session participants will be able to:

- Identify the advantages of incorporating technology to enhance learning (TEL) into undergraduate and postgraduate programmes

- Demonstrate an understanding of technological methods  which can be incorporated into a programme to enhance learning

- Recognise the importance of clear guidance for staff on how to incorporate TEL into learning programmes

# Technology to Enhance Learning (TEL)

This presentation discusses a study that was undertaken in 2011 at a UK University providing both undergraduate and postgraduate radiography education

# Aim of the study

To extend the role of technology enhanced learning (TEL) within undergraduate and postgraduate radiography programmes

# Objectives

- Develop a Flash Presentation for radiography students

- Evaluate the process

- Use the results to produce a user-friendly guide for academic colleagues to encourage greater use of TEL

# Background

- Many aspects of society have been affected by rapid development of ICTs in recent years

- New approaches to learning, teaching and assessment are required

- HEIs have responded with a number of drivers to integrate TEL

- TEL can enhance both the quality and flexibility of education provision

# Why incorporate TEL

- School leavers (Gen Y) now have expectations that learning will incorporate technology

- Fast changing world results in a requirement for more frequent training & development, especially in healthcare

- Challenging economic climate is driving more cost-effective methods of delivering education

- TEL offers a variety of tools to cater for different learning styles

# Barriers to implementing TEL

- Reluctance of some academics (Gen X) to engage with technology
- Time/costs spent acquiring new skills to interact effectively with technology
- Time/costs of developing new learning materials
- Competition from commercial companies with greater resources

# Advantages of TEL

- School leavers are more engaged with the learning process
- Students can select aspects which are most beneficial to their learning style
- Learning materials can be reviewed multiple times
- Classroom time can be used more effectively
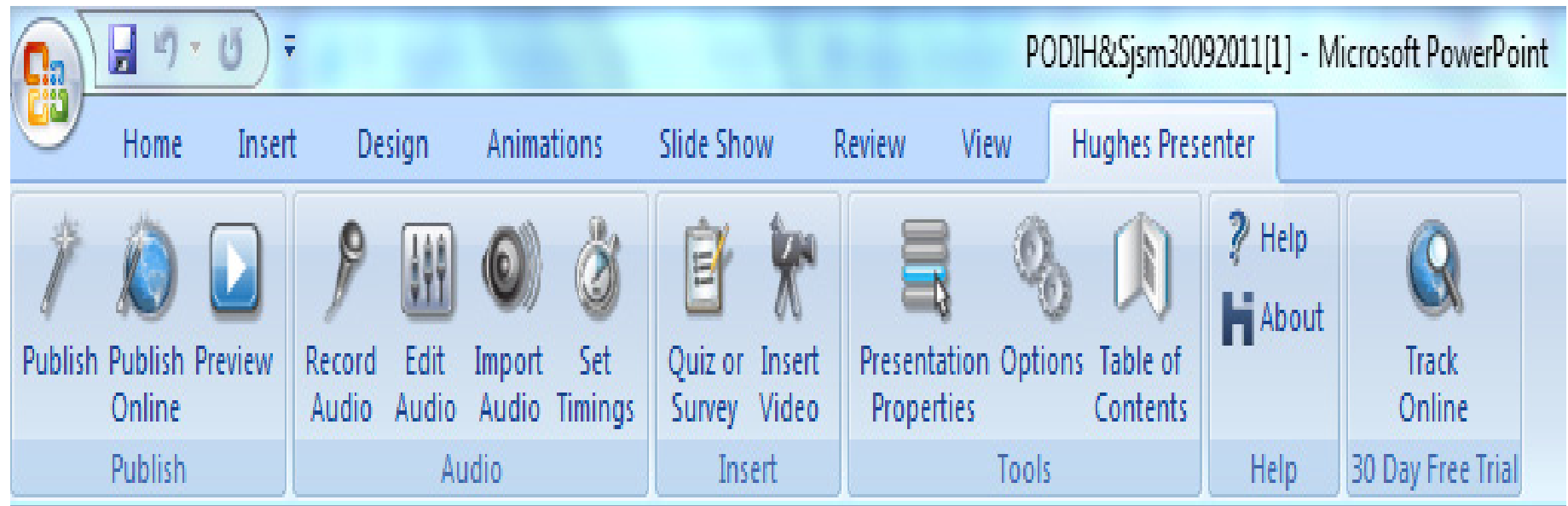- Costs of delivering a programme can be reduced

# Methodology (1)

1. Approval obtained from local Ethics Approval Committee

2. Deming's Plan, Do, Check and Act model was used

3. IT specialists were approached for technical guidance on use of TEL

4. A variety of potentially useful TEL tools were explored

# Methodology (2)

5. A Flash presentation was developed using the Hughes Presenter, and made available to 3rd year radiography students

# Methodology (3)

## First slide of first Flash Presentation:

# Methodology (4)

6. Investigation of student experiences was undertaken during a subsequent class attendance session

7. This involved small group discussions to obtain qualitative feedback and use of an EVS to provide quantitative data

# Methodology (5)

8. The results were used to inform development of a second presentation for 1$^{st}$ year students

9. Student experiences were again investigated

10. Results were collated and analysed

11. The researchers' experiences were incorporated into production of a user-friendly guide for academic colleagues

# Results -Qualitative data

- Thematic analysis performed on results from both presentations

- Results highlighted design positives and suggested areas for improvement

- Interim actions taken between first and second presentations, and results compared

# Results – first presentation

**Session Design Positives**

- Ability to access research links/ research

- Scenarios- made the topic interesting

- Inclusion of breaks

**Suggested Improvements**

- Access issues on personal computers

- Assessment not long enough

- Feedback session needed

- Reader pace

- Reading verbatim

- Voiceover not always needed

- More interactive prompts

# Interim actions

Before releasing the second presentation a number of changes were instigated:

- Guidelines issued on how to improve access from home computers

- A longer assessment quiz included

- Feedback opportunity provided by requesting students to bring quiz results to small group sessions

- The script was used as an aide memoire rather than read verbatim

# Results – second presentation

**Session Design Positives**

- Ability to access research links/ research

- Scenarios- made the topic interesting

- Inclusion of breaks

- Assessment

- Narration

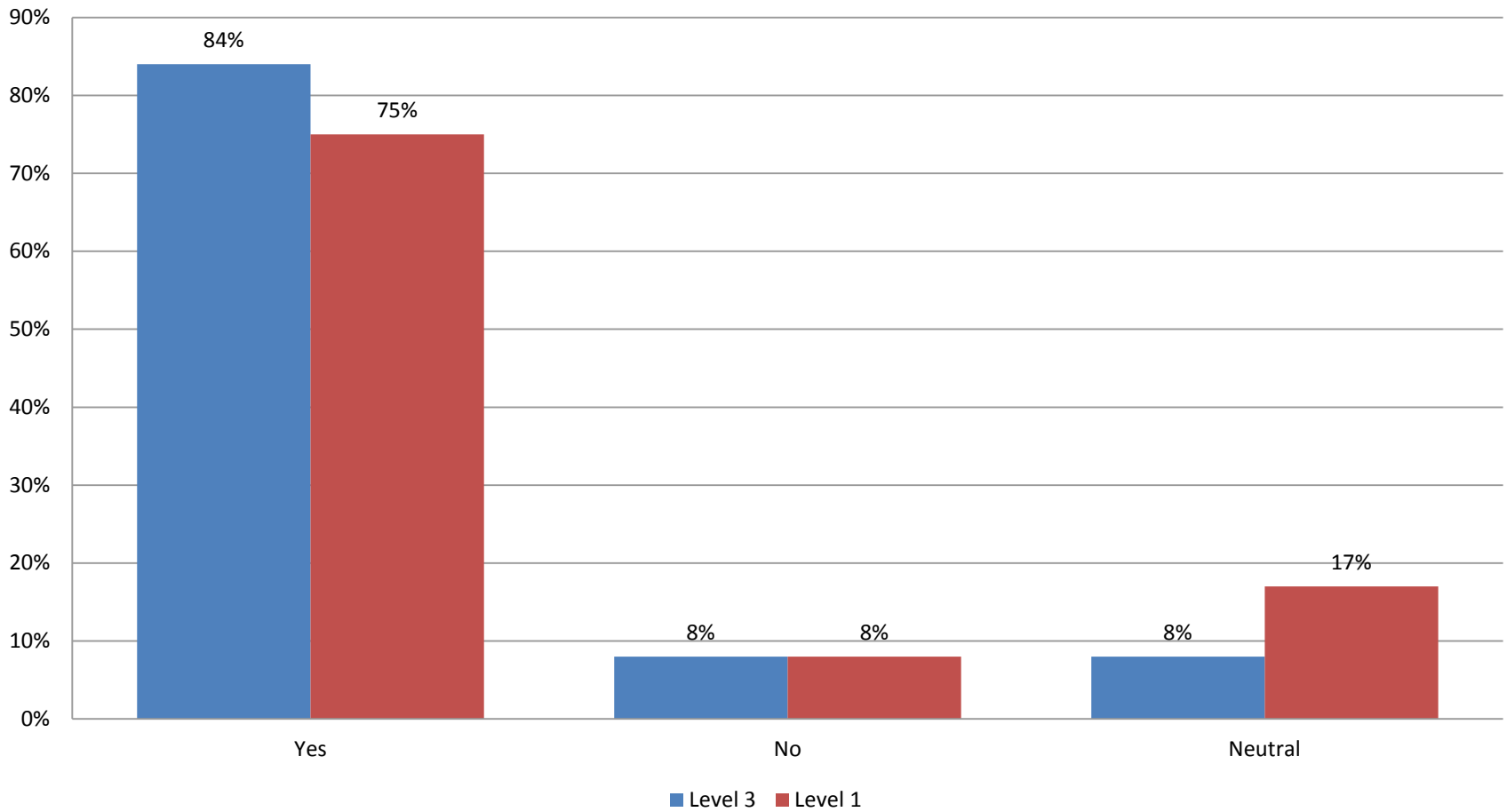- Opportunity for feedback

**Suggested Improvements**

- Access: Virtual Learning Environment

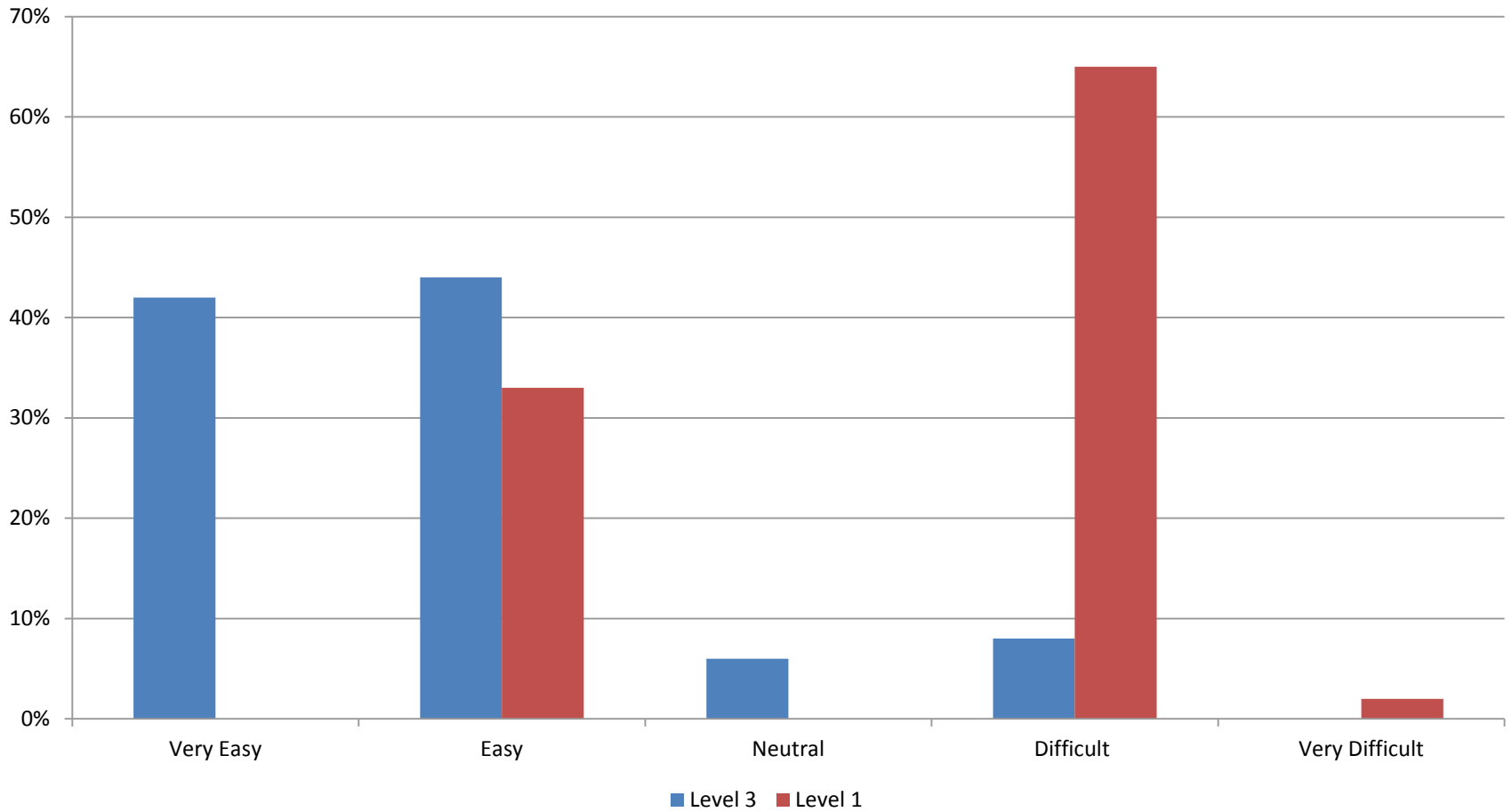- Make available as an Android Application

# Results – Quantitative data

- Students were asked series of closed questions in a classroom setting
- EVS used to record answers
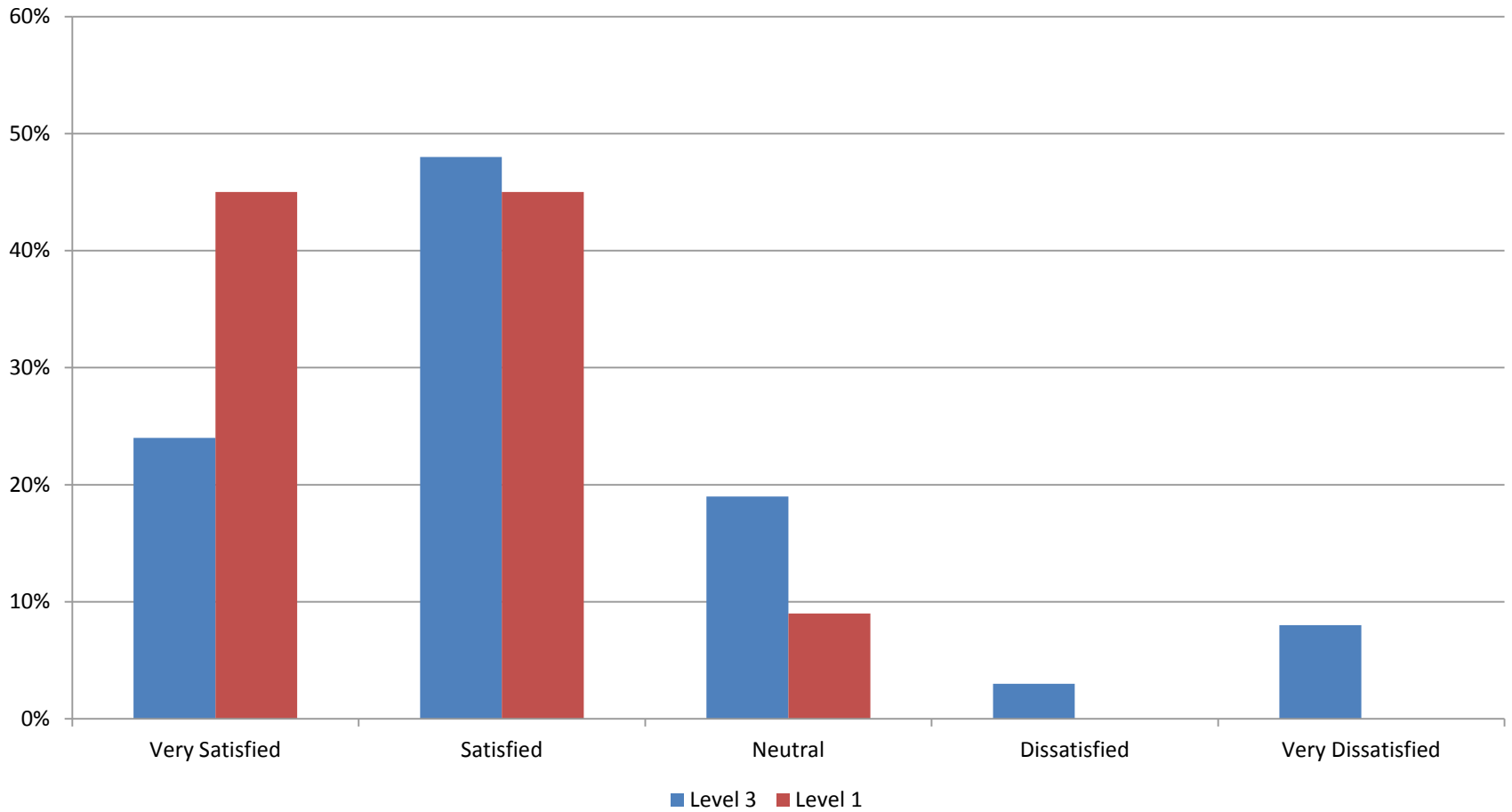- Results were quantified and analysed

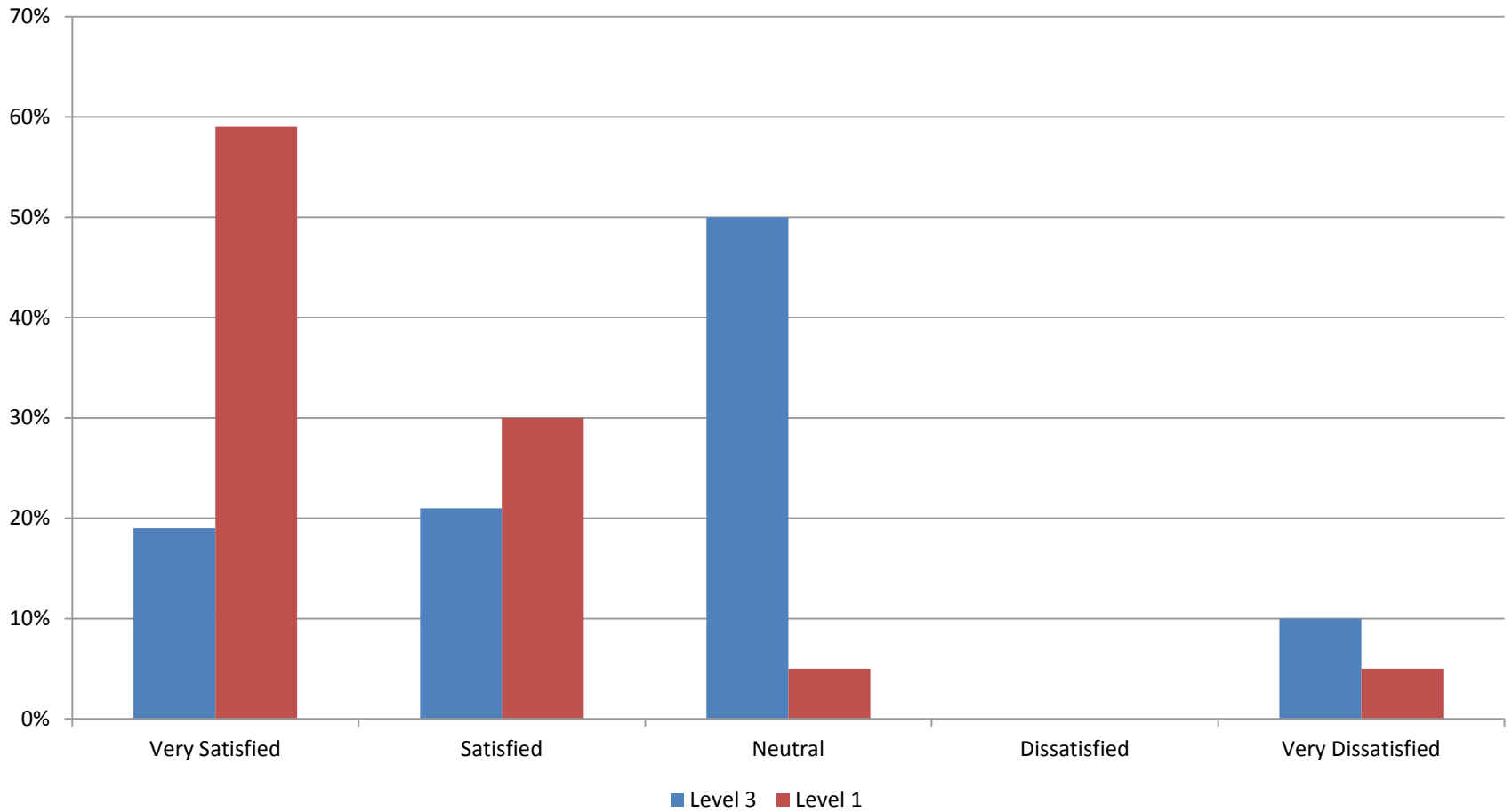# Increase use of Flash presentations in the curriculum

# Ease of access of material

# Session narration

# Feedback opportunity

# Guidance document for academic colleagues

- The experiences of students and researchers were compiled into a guidance document
- This provided technical information and practical tips on good/bad design features

# Guidance document for academic colleagues

**Presentation Design Tips**

- Issue all learners with relevant guidelines on how to access the presentation including any VLE and/or personal computer requirements.  Also include details on how this presentation can be accessed through the VLE android/ iphone app.

- Include breaks by either breaking larger presentations into smaller 10-15 minute "bite-size" chunks or including slides with break reminders

- Include links to relevant websites that learners can access while completing the presentation

# Guidance document (cont)

- Build in post-presentation feedback opportunity for students. This can be in a formal classroom setting or informal setting using discussion boards

- Include quizzes within the presentation so learners can gauge knowledge and understanding of the subject matter

- Ensure all learning styles are catered for.  Include audio, script, visual and interactive prompts

**Presenter Tips**

- Use a good quality microphone

- Practice voiceover- speak as naturally as possible

- Remember less is more. A voiceover isn't required for every slide especially when there is no script accompanying a slide

# Discussion

- Most of the negative features from the 1$^{st}$ presentation were addressed and noted as positives in the 2$^{nd}$ presentation

- Access issues remained a problem

- Students requested android/iPod Apps

- The guidance document was designed to provide encouragement for colleagues

- Further work is planned to investigate staff experiences with this guide

# Conclusions

- Education is moving towards greater integration of TEL

- TEL will help address student expectations

- Quality of learning experiences should improve

- More efficient use of resources will result

# References

- 1. http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_130924 [Accessed: 8 March 2012]

- 2. Higher Education Funding Council for England. *Enhancing Learning and Teaching Through the Use of Technology*. [online] http://www.hefce.ac.uk/pubs/hefce/2009/09_12/09_12.pdf [Accessed: 24 August 2011].

- 3. Browne T., Hewitt,R., Jenkins, M., Voce, J., Walker, R., and Yip, H. (2010) Survey of Technology Enhanced Learning for Higher Education in the UK. [on-line] Available from: http://www.ucisa.ac.uk/sitecore/media%20library/groups/ssg/surveys/TEL%20survey%202010_FINAL [Accessed: 19th January 2012]

- 4. Deparment of Health (2008) *High Quality Care for All: NHS Next Stage Review Final Report.* Lord Darzi.

- 5. Department of Health (2009). *NHS 2010-2015: From Good to Great.*

- www.skillsforhealth.org.uk/qualifications-learning-pathway/for-educationproviders [Accessed: 15 February 2012]

- 6. Educause. http://www.educause.edu/home [Accessed 18 February 2012]

- Waite, M., Bingham, H. *Best practice guidance for blended learning approaches to CPD education for NHS staff*. [online] http://www.nesc.nhs.uk/Docs/EL%20Marions%20Report.doc [Accessed: 29 August 2011]

- 7. Deming, W. E. *Out of the Crisis.* Massachusetts: Massachusetts Institute of Technology; 1982

- 8. Hughes. *Presenter for Training.* [online] http://training.hughes.com/presenter [Accessed: 12 July 2011]

- 9. Bryman, A. (1992) Quantitative and qualitative research: further reflections on their integration. In: Brannen, J., ed. (1992) *Mixing Methods: Quantitative and Qualitative Research.* Aldershot: Avebury,

- 10. Robson, C. *Real World Research.* 2nd ed. Blackwell; 2002.