Use of Interactive Quizzes for Professional Development

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Russell Sawchuk
Steppingstones Partnership Inc.

Presentation Overview

This presentation will demonstrate how quizzes can be used as part of a professional development program.

- Applications of tests and quizzes
- Components of an effective online testing system
- Benefits of online quizzes
- Research / theoretical considerations
- Examples of interactive quiz systems in use
- Test development software programs
- Questions, issues and conclusions.
Applications of Tests and Quizzes

We discuss different uses of tests and quizzes as part of a continuing competence program.

Tests and quizzes can be used for:

- Self-assessment of knowledge
- Diagnostic tools (e.g., personality assessments)
- Discovery learning (quizzes with feedback)
- Challenge exams
- Screening (e.g., foreign students / professionals)
- Feedback and interaction in e-Learning modules
- Evaluation as part of e-Learning modules
- Compliance testing, monitoring and reporting
Components of an Effective Testing System

An effective testing development and management software system should have the following features and capabilities:

- Easy to use by SMEs with no technical programming
- Range and variety of question types
- Flexible scoring and grading options
- Easy incorporation of multimedia
- Answer feedback options
- Test item banks, item selection and randomization
- Different delivery options (Internet, CD-ROM, etc)
- Tracking, analysis and reporting of quiz results
- Learner registration, management and administration.
Benefits of Online Quizzes

Offering tests and quizzes online has a number of advantages and benefits.

Having your tests and quizzes online has the following benefits:

- Self operating – once set up, quizzes run themselves
- Availability – available 7 x 24 around the globe
- Scalability – few limits as to numbers of users
- Updateability – easy to update and maintain quizzes
- Affordability – relatively easy and inexpensive to produce
- Individualization – learners can select which topics to review at a time and place convenient to them
Benefits of Online Quizzes ... 2

Having your tests and quizzes online has the following benefits: (continued)

- Pacing – learners can progress at their own rate
- Feedback – instant feedback provided (if enabled)
- Engagement – interactive quizzes require active learning that is engaging and interesting
- Safety and comfort – if anonymous with certificate
- Randomization – questions and responses can be randomly selected and presented from a larger pool
- Data – capture quiz results that can be used to identify learning needs and monitor effectiveness of quizzes.

Research / Theoretical Considerations

What the research and theory says about interactive quizzes.
**Adult Learners**

The key premises of adult learning theory are:

- Adults need to *know why* they need to learn something.
- Adults need to *be in charge* of their own learning.
- Adults come from a *wide variety* of backgrounds and experiences.
- Adults become ready to learn when they need to *apply a skill or knowledge to the real world.*
- Adults are *task-focused* and learn things best in the context of using learning to achieve desired outcomes.

Source: Knowles, 1998

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**Engagement**

According to flow theory, the more the following elements are present, the more enjoyable, engaging and immersive an activity is:

- A challenge that requires skills with an attainable goal and known rules
- Complete absorption in the activity
- Clear goals
- Immediate feedback
- Concentration on task in hand
- A sense of control, and lacking the sense of worry about losing control
- Loss of self-consciousness
- Transformation of time.

Source: Csikszentmihalyi, 2002
Examples of Quiz Systems

A couple of examples of quiz systems we have developed and use.

Quiz Systems

Here are some examples of the quiz systems we have developed and use.

- Demo [http://www.LPNnet.com](http://www.LPNnet.com)
- Demo Learning Nurse Test and Quiz Center [http://www.learningnurse.com](http://www.learningnurse.com)
Review of iGiveTest

A review, demonstration and discussion of Sight2K’s iGiveTest quiz creation and management software system.

iGiveTest

Description and features:

- Web-based, browser accessible application
- Must be installed on website server
- Built using PHP and MySQL
- Includes many test management features
- Has test results tracking built in
- Russian company with sales office in Vancouver
- Cost: $370 USD per license
- Product website: http://www.igivetest.com
iGiveTest

**Strengths:**

- Stable and trouble free
- All in one package
- Allows learner tracking and reporting
- Allows test item analysis
- Question banks
- Variable answer scoring
- Creation and allocation of groups
- Admin and results for learners
- Multiple developers / instructors across various locations
- Data export and supplementary reporting tools.

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iGiveTest

**Weaknesses:**

- Fewer questions types and formats
- Weaker multimedia integration
- Limited to online tests (no CD-ROM or print)
- Need multilevel categories for test item banks
- Organization of tests lists weak
- Average technical support (although not needed)
- Not sure of status or viability of vendor
iGiveTest

Points to demonstrate

- User registration form
- User component
  - Take a test
  - Reports manager
  - Administration
- Developer / instructor component
  - Question bank / subjects
  - Test manager / grading systems
  - Reports manager

iGiveTest

Points to demonstrate (… 2)

- Administrator
  - Users
  - Groups
  - Configuration
  - Templates
- Data query
- External reporting systems

NOTE: Tutorials and demos available at http://www.igivetest.com
Review of Quiz Creator

A review, demonstration and discussion of Wondershare’s Quiz Creator test development and management software system.

Quiz Creator

Description and features:
- Software on your computer that creates Flash quizzes
- Created files must be uploaded to your website
- Wide range of question types and formats
- Publish to Internet, CD-ROM, e-mail or Word
- Test results to LMS, QMS, database or e-mail
- Chinese company
- Cost: $120 to $260 USD per license
Quiz Creator

Strengths:
- Inexpensive
- Question item import
- Good multimedia integration
- Question and answer level hyperlinks
- Choice of quiz parameters
- Publish to different formats
- Quiz access and control functions
- Tracking and reporting including database integration
- Quiz management system (available to buy)
- Regular updates incorporating client requests.

Quiz Creator

Weaknesses:
- Technical support is so so (often on holidays)
- Forums are not very active
- Communication challenges
- Too busy for custom work
- Not as many features as Articulate’s Quiz Maker
Quiz Creator

Points to demonstrate:

- **File**
  - New / Open / Excel / Save / Save As / Exit
- **Quiz Properties**
  - Info / Defaults / Settings / Result / Access
- **Add Questions**
  - True-False / Multiple Choice / Multiple Answer
  - Fill in the Blank / Matching / Sequence / Click Map
  - Short Essay
- **Player Template**
  - Layout / Appearance / Author Info / Audio Effects

Quiz Creator

Points to demonstrate (% 2)

- **Preview**
  - Preview / Preview Quiz
- **Publish**
  - Web / LMS / PPT2Flash / CD / E-mail / MS Word
- Quiz Management System (QMS)
  - Home (Quiz Results Info / Quiz Report)
  - My Profile / Quiz Management / Participants

Demo and tutorials at [http://www.wondershare.com](http://www.wondershare.com)
Review of Quiz Maker

A review, demonstration and discussion of Articulate’s Quiz Maker test creation and management software system.

Quiz Maker

Description and features:

- Software on your computer that creates Flash quizzes
- Considered leading product and company
- Wide range of question types and formats
- Publish to Internet, CD-ROM, e-mail or Word
- Test results to LMS, AO or e-mail (no database)
- American company with excellent support / community
- Cost: $700 USD per license
- Product website:
### Quiz Maker

**Strengths:**
- New version (Quiz Maker 09) just out with many enhanced features and capabilities
- Only one that has branching (except Adobe Captivate)
- Multimedia well integrated
- Seamless integration into Articulate Presenter
- Some 10 different question types
- Excellent support / very good and active forums
- Website has suggestions / tips for quiz and e-Learning development and applications.

### Quiz Maker

**Weaknesses:**
- Expensive
- Newest version appears to still have some bugs
- No direct database tracking!
- More complicated to use than QC
- Articulate Online is expensive and offered only as hosted service.
Quiz Maker

Points to demonstrate:
- **Insert**
  - Graded Question / Survey Question / Blank Slide
  - Question Group / Import Questions
- **Edit**
  - Edit Question / Delete Group / Move Group
- **Results**
  - Pass / Fail

Quiz Maker

Points to demonstrate (… 2)
- **Group**
  - Randomize / No. of Questions
- **Quiz**
  - Templates / Quiz Properties
- **Publish**
  - Presenter / Web / AO / LMS / CD / Word

Quiz Maker demos and tutorials at [http://www.articulate.com](http://www.articulate.com)
Questions, Issues and Conclusions

Many questions need to be answered and issues resolved before we can take full advantage of test and quiz systems.

Questions and Issues

Here are some questions nurses have asked:

- Can the user print off the quizzes after they have completed them?
- Is there a cost for us to use the Learning Nurse site?
- As a user, will I be sent notices of site updates?
- Where do the sources of information used to create the quizzes come from?
- Can I access my own quiz result statistics?
- Will my College / Association recognize taking online tests and quizzes as evidence of ongoing learning?
Questions and Issues … 2

Here are some questions we have about tests and quizzes:

- What are the priority areas for tests and quizzes?
- What is the ideal length (number of questions) for a quiz?
- Should quizzes include narration, music and/or links?
- What type of feedback do nurses want from their quizzes?
- How do we make sure that test items matter to performance?

Conclusions

Based on our experiences so far, here are some conclusions and suggestions:

- By far the most popular of online learning components
- Most cost-effective approach to providing members with online learning opportunities
- Make quiz development an approved and recognized professional development activity
- Use quiz results to identify members’ learning needs and to plan / offer / broker learning activities
- Getting the word out has been a challenge; most success from search engines and through social networking.
Presentation Summary

Examples
Applications of quizzes
Questions, issues and conclusions
Components and features
Benefits of online quizzes

Resources

Here are some of software tools we use to create e-Learning modules and quizzes.

Articulate QuizMaker: [http://www.articulate.com](http://www.articulate.com) New version just out with branching, media and other features. However, database tracking was NOT included in this release. $700 USD

Wondershare QuizCreator: [http://www.wondershare.com](http://www.wondershare.com) Similar to QM above. Also, Quiz Management System (QMS) for better test tracking, reporting and analysis. $260 USD

IGiveTest: [http://www.igivetest.com](http://www.igivetest.com) This is a browser-based system built on PHP and MySQL. It is a complete test management and tracking system. Fewer question types and media capability compared to the two above. $370 USD

QuestionWriter: [http://www.questionwriter.com](http://www.questionwriter.com) One of the best and most flexible stand-alone quiz development and management software packages. $595 USD
References

Here are some of recent books on digital learning that we recommend:


Contact Information

To contact the presenter for more information:

Russell Sawchuk
Steppingstones Partnership Inc.
Box 8220
Edmonton, Alberta T6E 6R2

Phone: 780-430-8245 or 1-800-267-9997 (Canada and USA)

E-mail: russ@steppingstones.ca

Webs: LearningNurse.com  LPNet.com  CompeTrax.com
QuizReporter.com  Steppingstones.ca