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How do Health Researchers Benefit from Web-based Survey Systems?

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Outline

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- Surveys as a research tool
- What is a “good” survey system?
- QuON: An Web-based system designed for scientific surveys
- Conclusion



<https://commons.wikimedia.org/wiki/File:Emblem-question.svg>



<https://commons.wikimedia.org/wiki/File:Information.svg>



https://commons.wikimedia.org/wiki/File:Tick_green_modern.svg

- » Surveys important in many areas of health, psychology, sociology, etc.
- » Patients should be partners in their own care
 - » Knowing their opinions/feelings is important
- » Find patient views about:
 - » healthcare services
 - » patient outcomes
 - » areas of unmet service need
- » Target patient/clinic characteristics associated with high risk of poor outcomes

FluidSurveys



checkbox



What makes a “good” survey system?

- » Relevance
- » Respondent acceptability
- » Immediate feedback
- » Comprehension
- » Respondent privacy
- » Data quality
- » Researcher convenience

- » Skip unnecessary questions
 - » Follow structure that makes sense
- » Requires complex branching
 - » Based on previous answers
 - » Based on participant information
 - » Based on survey information
- » Most existing systems just don't have it
 - » Branching only on previous question
 - » Conditional display of question only

- » Well-designed survey
 - » Following good design
- » Work on wide range of devices
 - » Web standards work here
- » Include previous answers in future questions

- » For both patient and health worker
- » Improve patient literacy/self-management
 - » Identify areas where more intervention required
- » Should support both electronic and physical delivery

Comprehension

- » Make content easy to understand

- » Increased accessibility
- » Video/audio can be included in Web systems
 - » Customised to suit respondent
- » Conditional inclusion of multiple questions on a single screen

Respondent Privacy

- » Privacy required
- » Data must be de-identified

- » Data likely to be sensitive
- » Limit respondents
- » Central system to store results
 - » Limit access to results
- » Ensure communications encrypted

Data Quality

- » Identify errors at the source
 - » Notify participant of incorrect/incomplete information

- » Require compliance before moving on
- » Include instructions for more difficult question types
 - » e.g. rank order or distribution of points
- » No transcription errors

Researcher Convenience

- » Participant management
 - » Automatic completion rates
 - » Automatic reminders

- » Data management
 - » Changes to questions immediate
 - » No need for aggregation
- » Response analysis
 - » View data from anywhere
 - » Download for more complex analysis
 - » Include timing information

QuON

QuON Survey System

Actions

[Previous Survey Object](#)

[Return to Survey Objects](#)

Survey Object Attributes

Survey Object: LikertScale

Name	Value	Actions
Question Text	How happy have you been	Edit
Options	1-Very unhappy?2-Moderately unhappy?3-Neither happy nor unhappy4-Moderately happy?5-Very happy	Edit
Items	day-in the last day/week-in the last week/month-in the last month	Edit
Tables	Test	Edit
Metadata		Edit
Randomise		Edit

Page 1 of 1, showing 6 records out of 6 total, starting on record 1, ending on 6



How happy have you been:

	Very unhappy	Moderately unhappy	Neither happy nor unhappy	Moderately happy	Very happy
In the last day	☐	☐	☐	☐	☒
In the last week	☐	☐	☐	☒	☐
In the last month	☐	☐	☐	☐	☐

[Close](#)



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QuON

- » CakePHP-based Web application
 - » Early implementation available from <http://code.google.com/p/quon>
- » Survey objects

- » Questions

- » Informational, Text, Calendar, Password, RadioButton, ButtonOption, Dropdown, Checkbox, LikertScale, RankOrder, DistributionOfPoints

- » Advanced Questions

- » Meta, DynamicCheckbox, DynamicRankOrder, DynamicDistributionOfPoints

- » Actions

- » Branch, Calculation, Random, SendEmail, ParticipantCreation, ParticipantStatus



Thank you

DISCUSSION

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