RESEARCH AREA

~EDUCATION~

ONLINE EDUCATIONAL TECHNOLOGY FOR MOTIVATING LEARNERS
“AN EXPLORATORY STUDY OF THE POTENTIAL OF KatSRS AS AN EDUCATIONAL TECHNOLOGY IN FACILITATING LEARNERS’ ENGAGEMENT AND FEEDBACK: A CASE STUDY OF BOTHO COLLEGE.”
AUTHORS

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Online Feedback 360d

- aka - Katlego Feedback system.
- It is an online system that allows students to give feedback about their faculties and their program of study,
- The feedback is anonymous so the students are encouraged to write freely,
- It helps management review the performance of faculties and review program syllabuses and then set up ways to improve that, if needed.
Student’s Response System (SRS)

- SRS refers to an integrated hardware and software system that allows lecturers to pose questions and gather students' responses during a lecture.
- Aka clickers, classroom response systems, personal response systems, or audience response systems.
- Some common SRS’s have two primary hardware components; a remote (or clicker) for students and a receiver for instructors.
Katlego Student’s Response System (KatSRS)

- KatSRS is similar to SRS described above,

- It is unique in that students use college computers to log onto the system and they enter session code and lecture code in order to be identified with a particular lecture.

- Proposed to be part of the Feedback 360d already being used at Botho College as stated above.

- Has the same functionality as already outlined above.
BACKGROUND TO THE STUDY

A. BARRIERS TO ACTIVE PARTICIPATION

B. PEER ASSESSMENT AND OBSERVATION

C. Katlego Feedback System
BARRIERS TO ACTIVE PARTICIPATION

1. students fear to be embarrassed by their colleagues when their contributions are incorrect or trivial,

2. expectation by some students to be quite while the lecturer talks,

3. loss of opportunity by some students – some students are too vocal,

4. language barrier.
B. PEER ASSESSMENT AND OBSERVATION

Peer assessment and class observations were conducted from July to August 2012 the following challenges were discovered:

- Student interaction
- Availability of time
- Time management versus attentiveness
Feedback 360d is already in use, only minor adjustments can be made to enable the system to:

1. cast a question,
2. facilitate data collection,
3. promptly process data,
4. present the collated data to enable prompt feedback.
The present study’s main objectives are to:

- Establish whether KatSRS has an impact on changing learners’ engagement as compared to the experiences of students with other approaches,
- Determine if there is an improvement in student-to-lecturer interaction when KatSRS is used compared to traditional approaches are used,
- Determine the most preferred mode of answering or interaction during a normal lecture.
Out of a number of sources of information of this study, we recognise these being amongst the most influential ones:

2. Harin Sellahawe (2011)
4. METHOD
Caldwell E. J. (2007)

- **From:** West Virginia University Morgantown.
- **Research:** Clickers in the large classroom Conducted experiments using “two-way” clicker units.
- **Observation:** Clickers offer a powerful and flexible tool for teaching.
- **Conclusion:** They enhance students’ active learning, participation, and enjoyment of classes. Also, they increase attendance and retention and promote student accountability.
- **Related Literature**
Dyson Benjamin (2008)

- **Innovation:** is on the 3-1-minute interactive windows on getting students to participate and reflect during a session,

- **Findings:** The data show an enhancement of student engagement with certain small-scale interventions during large-scale teaching,

- **Conclusion:** level of participation in the experimental group improve significantly compared to the control group.

- [Related Literature](#)
Harin Sellahewa (2011)

- **From:** University of Burckingham, Applied Computing Department.
- **Research:** Demonstrated the use of online SRS system that uses mobile devices and mobile services to engage students in class, collect student responses and provide prompt feedback for students and lecturer.

- **Conclusion:** SRS has a positive effect on student learning and students’ experience in small-group teaching.
- **Related Literature**
METHOD

- Participants
  - students in the Computing Department studying computer science at Botho College (Francistown) in the 2011–2012 academic year,
  - 80 students all from Botho College (Francistown),
  - 46(58%) are female and 34(42%) are male

- Stimuli and apparatus
  - MCQs at every 30 minutes during a lecture or before the lecture,
  - Questionnaires to collect students feedback after 3 weeks of the experiment
DESIGN: Experiment

A. The experiment was conducted over 6 weeks (week 4 - 9) of Computer Systems Architecture (C1-CSA) and Mathematics for Computing (C1-MAT) courses.

1. During the lecture MCQ’s
2. Recap MCQ’s,
3. Survey Questions after 3 weeks of the experiment,
4. Oral Interviews after 3 weeks of the experiment.
DESIGN: KatSRS at work

- Broadcast a MCQ to the students machines (clients),
- Allow students to submit their answers to the teacher’s machine (server),
- active data processing,
- prompt presentation of the collated data to enable real-time feedback to the teacher and students.
LIMITATIONS OF THE METHODOLOGY

- Although benefits are apparent, we noticed that there are several limitations associated with the method, design and implementation of the KatSRS,

1. Does not make a comparison with the other tools of similar purpose,
2. Time management,
3. Administration of the process may be difficult,
4. Preparation.
FINDINGS:
(at recap and during lectures)

- All students had an opportunity to provide feedback at the point where MCQ’s were posed (at recap or in sessions during lectures),

  ✓ This could not be achieved when a normal lecture discussion was used.
Findings: Survey results after 3 weeks of KatSRS use

- Out of the 62 responses received, 58 (93%) students preferred to be anonymous in class and either strongly disagree or just disagree with the suggestion that KatSRS is a waste of time.

- 61 (98%) out of 62 students strongly agree or agree with the suggestion that KatSRS is a useful tool in learning;

- 61 (98) out of 62 students either strongly agree or agree with the suggestion that KatSRS enhances their learning experience;
Oral Interviews

- Interviews were conducted with 9 students, i.e. 3 from each group.

- The comments are indicating that:
  1. Most students are happy with KatSRS,
  2. All students have not used SRS before,
  3. Use of SRS needs to be combined with peer or cooperative learning.
RECOMMENDATIONS

- Use of KatSRS requires proper planning, effective administration of the process and prompt evaluation of the process after the course for feedback. We therefore make the following recommendations:
Question design goals and tactics

- Further research is required to determine how best we can design the questions for use during the lectures involving SRS.

- The questions should be structured such that they meet the pedagogical needs of a specific course such as;
- the ability to assess students’ knowledge,
- improve on their learning experiences,
- key research question therefore could be:

“What are the design goals and tactics for the SRS questions?”
Administration of the process

- Administration and management of the process consumes more time.

- You may require 10% – 15% additional time to cover the same number of learning points.

- An investigation into the optimization of the SRS systems may be necessary, and also, additional resources need to be identified that could aid the teacher to easily administer the process without taking too much time.
Impact on student-student interaction

- The notion behind KatSRS is not to eliminate discussions in class but, to find the best ways of making it more valuable to students.

- We therefore see the need for further research on how teachers can create an interactive classroom environment by posing challenging questions and positioning the discussions at the right times.
CONCLUSION

The exploratory study has shown that the use of KatSRS at Botho College (Francistown) can significantly improve learners’ engagement and experiences because it;

1. can simulate a one-to-many dialogue,
2. simplify instructor-student interaction,
3. enable both the teacher and students to get prompt feedback,
4. increase attendance,
5. reduce attrition rates,
6. promote student accountability.
THANK YOU!!