DIGITIZING TEACHING METHODOLOGIES IN KENYA'S UNIVERSITY EDUCATION: THE VIEWS OF A PRACTICING EDUCATOR
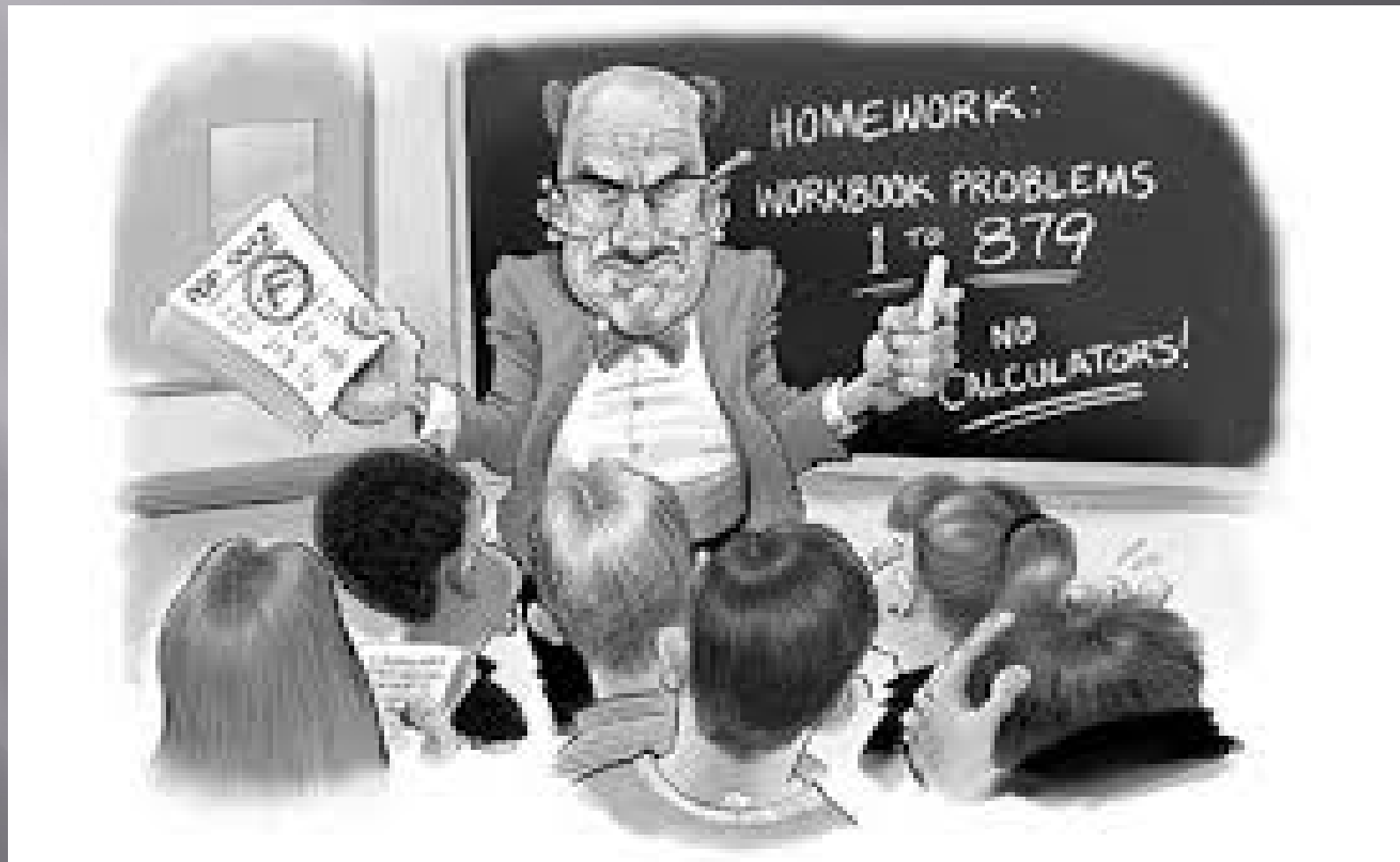
NYAMBEKI S. MATOKE

TECHNICAL UNIVERSITY OF KENYA

Does Digital Learning mean?

TRADITIONAL TEACHING

OVERVIEW OF TRADITIONAL TEACHING METHODOLOGIES

- Teacher sender/ source of message
- Receiver is the student
- Delivery medium-chalk/chalk board
- Overhead projector
- Student purely passive
- Fading time period- approximately 15-20 minutes
- lecture time period in Kenya-hour- 2 hours

Limitations of Traditional Teaching Methods

- Chalk and talk
- Continuous talk- no feedback
- Learning material = lecture notes/text books
- Lots of emphasis on theory
- No real life situations-memorization

Digital Learning entails?

i. Using technology to strengthen a student's learning experience.

ii. Moving teachers away from lecture based assignments towards multiple Internet based devices

iii. Flipping the classroom and having more interactive assignments

iv. Changing the focus of the class room from the front

v. Increasing individual teacher-student contact

Digital Learning Tools

- Text
- Images
- Audio
- Video
- Animation
- Internet
- Hand held computers
- Digital Cameras
- MP3 Players
- Laptops
- E-Learning

PROBLEM STATEMENT

i. *Modern day students live in a world that is constantly linked and alive outside the class room,*

ii. *Kenyan Education stakeholders recognize difficulties in engaging the modern day students*

iii. *Traditional methods may not work effectively.*

iv. *There is a need to meet with 21st century teaching and learning trends.*

v. *By getting digitized , the material has the power to involve students in methods that aren't possible with stationary pages. And improve levels of information retention*

RESEARCH OBJECTIVES

i. *Assess traditional teaching methods*

ii. *Evaluate if Digital learning improves productivity of teachers*

iii. *Examine the extent to which digital learning facilitates career readiness for the modern day students*

DATA COLLECTION

- In collecting data for this research, relied on both secondary and primary data.
- The primary source of data were lecturers, students and ICT departments staff in universities located within Nairobi
- Demographic characteristics included age, gender and education
- A total of 250 questionnaires were sent out to randomly selected respondents
- 200 questionnaires were received back
- Missing information was obtained through web searches by looking up faculty CVs, biographies on departments' web pages, etc.
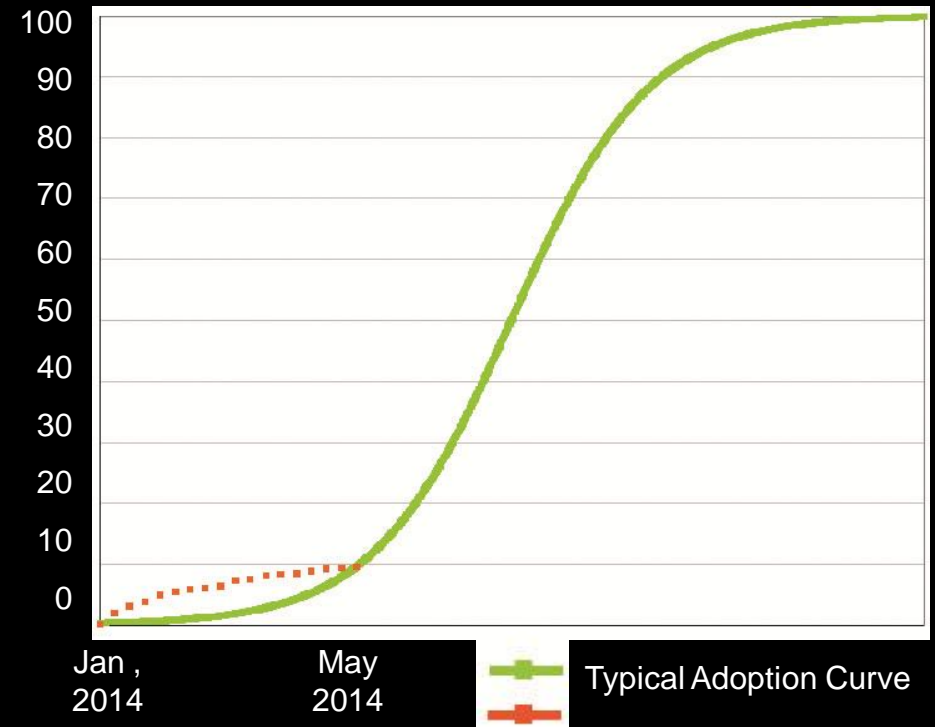
FINDINGS

- An average of 1.6 innovative technology related activities per teacher
- five percent of all faculty members are involved in two or technology related activities.
- Faculty from technology related institutions of higher education continue to dominate the use of technology in learning as its core:
- Female lectures are more receptive to integrating technology in teaching and learning activities, unlike their male counterparts.
- Faculty members with PhDs are involved in fewer innovative teaching and learning activities.
- Younger faculty members –more receptive to innovative teaching methods
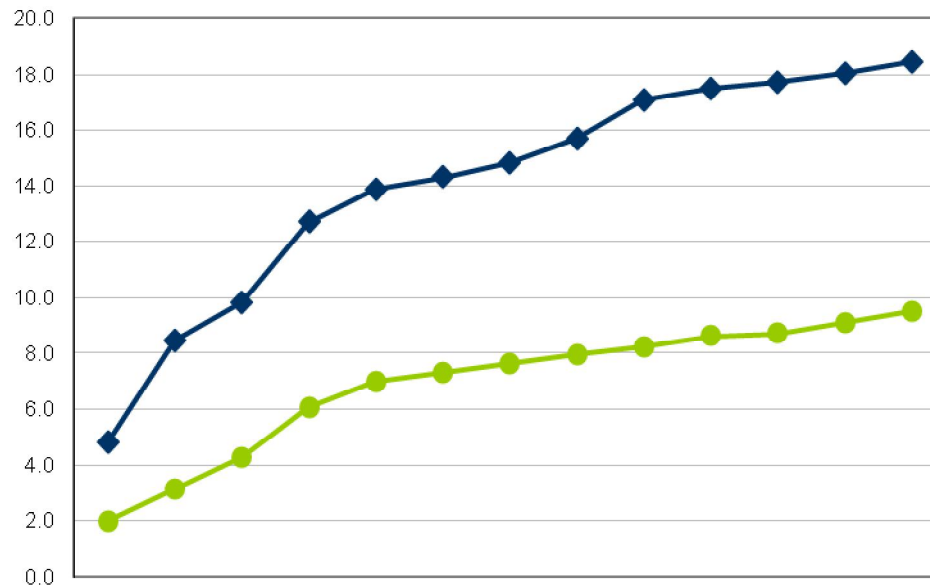
FINDINGS

- Small minority of teachers and can be classified as "early adopters" according to Rogers (2003).

- The total percent of faculty using technology in learning as at may 2014 was 9.5%.

- Adoption rates seem to appear to follow the S-shaped curve of the typical diffusion of innovation process as described by Rogers (2003).

ADOPTION TRENDS

Jan , 2014	May 2014	Typical Adoption Curve

FINDINGS

Adopters among Faculty, members January-May 2014

- Lectures from technology based learning are 4 times as likely to be adopt innovative learning methods as compared to those whose institutions were not receptive to technology

FINDINGS

- The diffusion process appears to be highly dependent social contacts.

- Adoption by faculty was the highest during the early months of the semester


Month
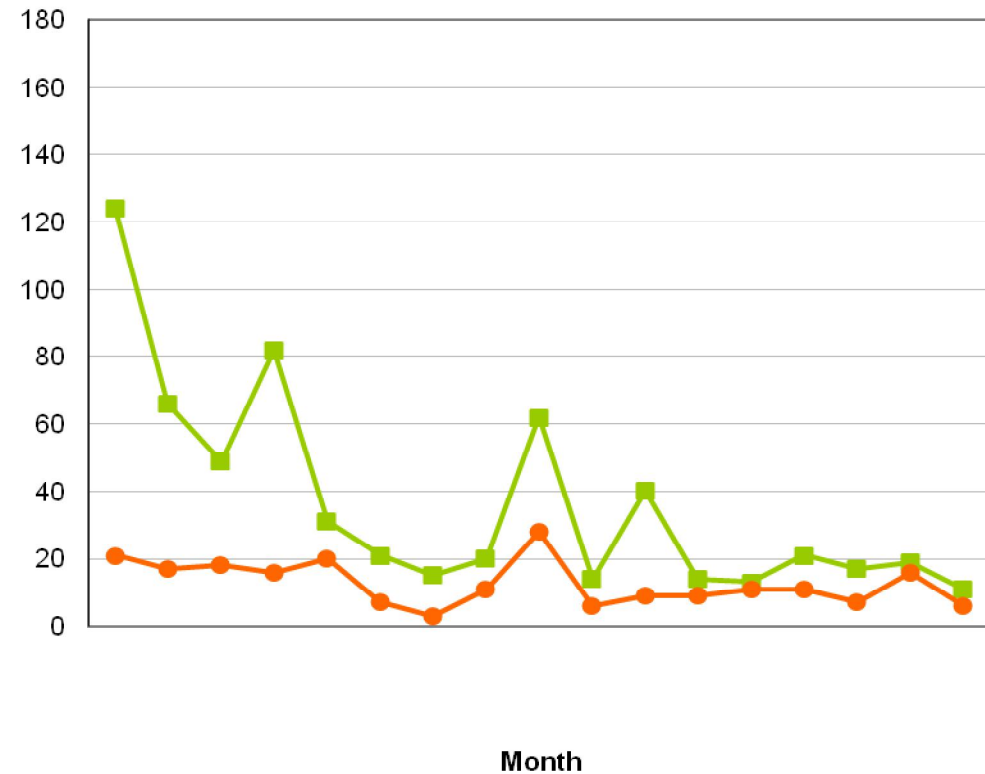
FINDINGS

- Cyclical nature of faculty's teaching needs during the academic year makes adoption levels the highest at the beginning of the academic year and low through the rest of the year.

- There was demonstration of interest in subscribing to the new innovative method in the dissemination of teaching and learning materials especially among the younger educators and tutorial fellows.

FINDINGS
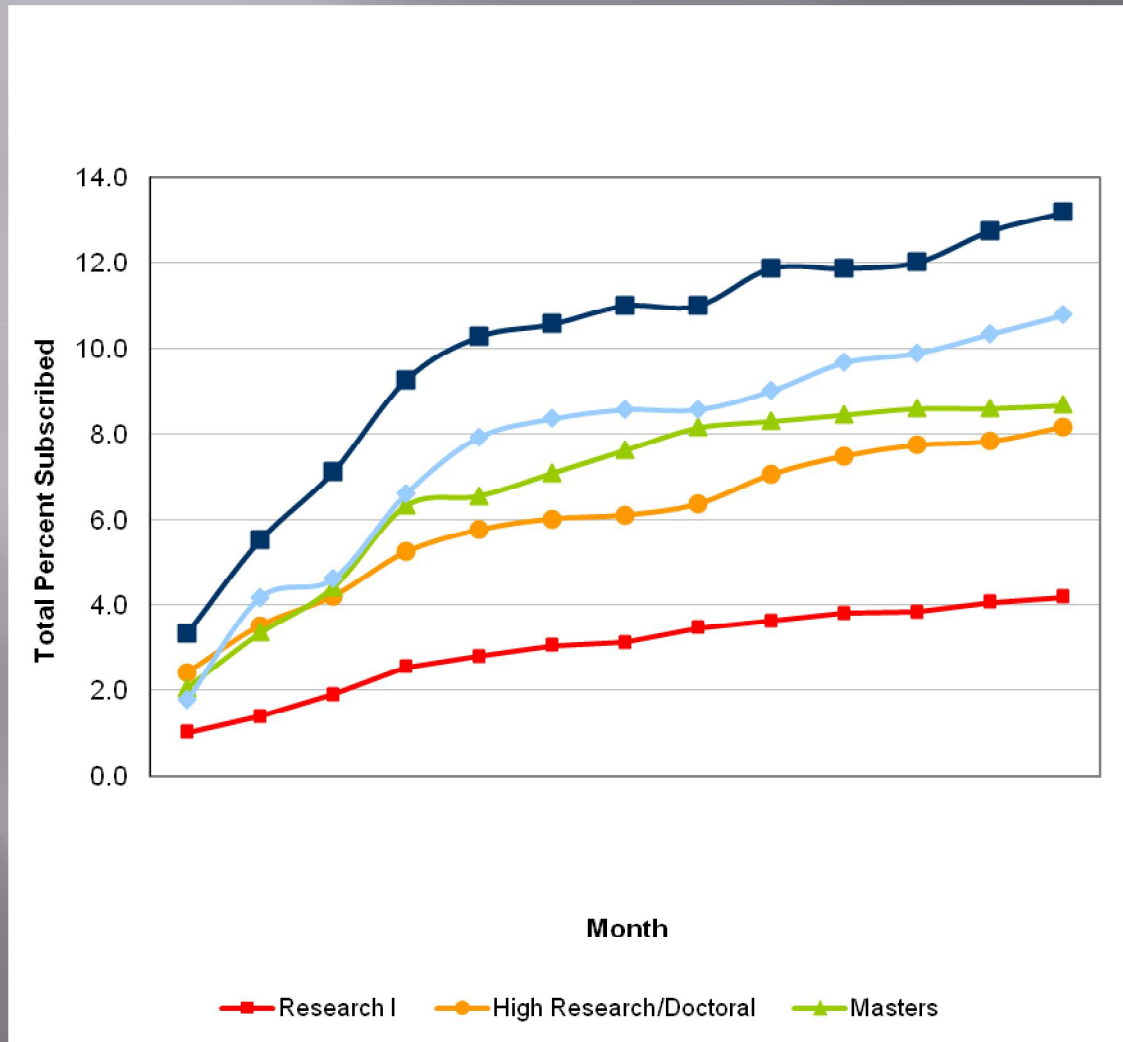
The adoption rate is much higher among faculties that emphasize innovative teaching.

- ie 13% of ICT departments , 11% of business departments only 4% of Engineering related departments.

- The rate of adoption, nevertheless, continues to grow throughout the year at all type of schools except Master's level schools.

- The results suggest that the new innovation is not moving to Research based learning

CONCLUSIONS

Answers to the evaluation question:

1. The process of adoption of innovative teaching is very minimal across institutions of higher learning in Kenya

2. In some institutions dissemination has not occurred across all types of schools./faculties

3. Adoption appears to occur quickly and then slow down, but responds to cyclical teaching needs

Recommendations

i. There is need for the key stakeholders in education to create an enabling environment for innovative teaching methodologies to be meet the modern day student needs
ii. Institutions need to brace technology
iii. Educators need to be encouraged to embrace modern day technology

Thank you