

# Marshalling Meaningful Mobility

Readiness opinions and experiences  
of Mobile Learning (ML) at a School of  
Education



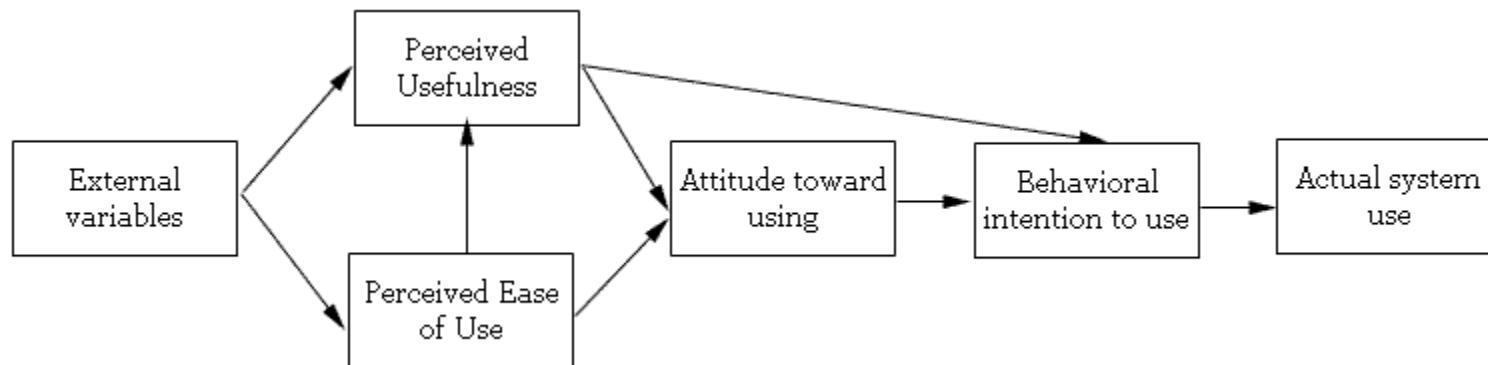


# The Background

- **Perceived flexibility benefit to access information anywhere and anytime.(Coens, Reynvoet & Clarebout, 2011)**
- **Mobile technologies/devices are being used to support teaching and learning (Maharaj & Mohan, 2006).**
- **Ubiquitous in the Caribbean region (Maharaj, 2006).**
- **Readiness mandate for blended course delivery by September 2012 at St Augustine campus**
- **The potential of ML to transform higher-education (Brink, 2011).**

# Theoretical Framework

- Reasoned Action (Fishbein and Ajzen, 1975 )
- Planned Behaviour (Ajzen,1985; 1991)
- Technology Acceptance Model –TAM (Davis, 1986)



Technology Acceptance Model from Davis, Bagozzi et Warshaw (1989)

- **Even with the criticism of TAM 2 - Significant factor not included in the model (Legrisa, Ingham & Collerette, 2003)**
- **Useful for explaining change and adoptions of innovations**

- **Knowles (1984 ) Learning is self-directed**
- **In practical terms, andragogy means that instruction for adults needs to focus more on the process**
- **Adult learners require flexibility and autonomy. Lieb (1991) suggests that adult learners have ‘barriers against participating in learning’ (Barriers and Motivation, para.1)**
- **Therefore effort must be made to ‘enhance their reasons for enrolling and decrease the barriers’. (Barriers and Motivation, para.3)**

# Mobile Learning- Changed in the last decade, ...yet remained constant



- Instruction or learner support delivered via some type of mobile device...leverages on the mobile device's portability and affordability (Yamaguchi (2005).
- Wireless digital devices developed for general public use but used by a learner in higher education. (Traxler, 2007)
- In the higher education context, ML is seen to possess three main components: mobility of the technology and the mobility of the learner as well as “the mobility and dynamism of the learning processes and the flow of information” (El- Hussein & Cronje 2010, p12).
- More recent definitions of ML view the mobility of the learning as an important factor.



# Readiness For Mobile Learning

**Readiness for successful ML, involves some key considerations:**

- a) the learners' willingness to purchase/ procure devices as well as...**
  
- b) their ability to pay for ISP services.**
  
- c) a positive perceptions of utility**

**Abas, Peng and Mansor (2009)**

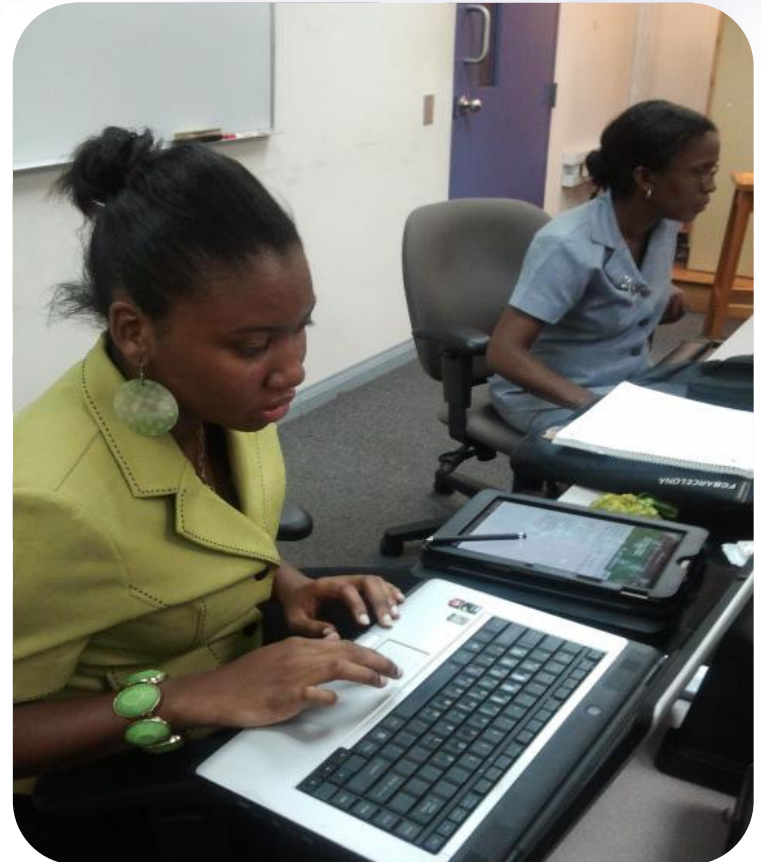
## Objective

- **To assess the ML readiness opinions, perceptions and experiences of facilitators and part-time final year students pursuing the Bachelor of Education (BEd) course at a School of Education**
- **Readiness and usage criteria**
  - **Ownership of devices**
  - **Willingness to purchase devices**
  - **Usage patterns**
  - **Perception of utility**

# Research Questions

**What are facilitators' and students' opinions of their readiness for ML regarding...**

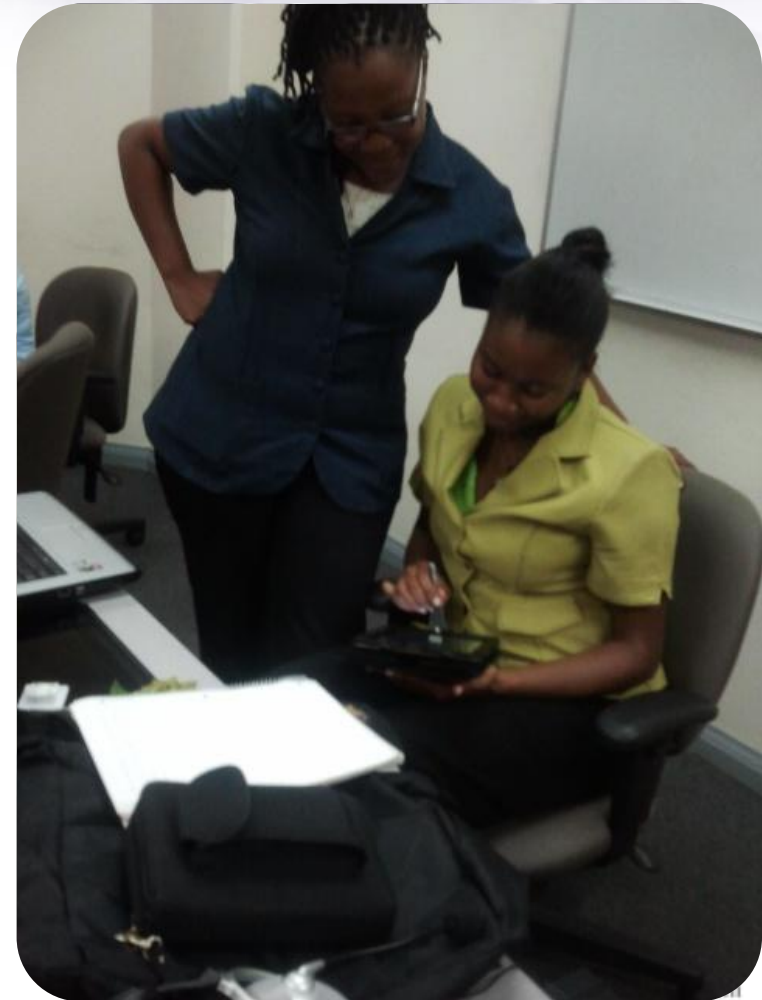
- a) Ownership of mobile devices**
- b) Preference of mobile devices for education**
- c) Usage patterns of mobile devices for education**
- d) Perceptions of utility?**





# Methodology

- **Online survey administered to students & facilitators**
- **All teachers completed during class**
- **Final year BEd student/teachers pursuing EDTK 3202**
- **Survey link emailed to BEd facilitators who teach the in-service student-teachers ( full-time, part-time and coordinators)**



# The Instrument

**Instrument's (32 questions) focus on 4 elements of ML**

- - willingness to purchase
- types mobile devices owned
- usage patterns
- perceptions of ML utility

**Adaptation of Parasuraman 2000)  
Technology Readiness Index)**



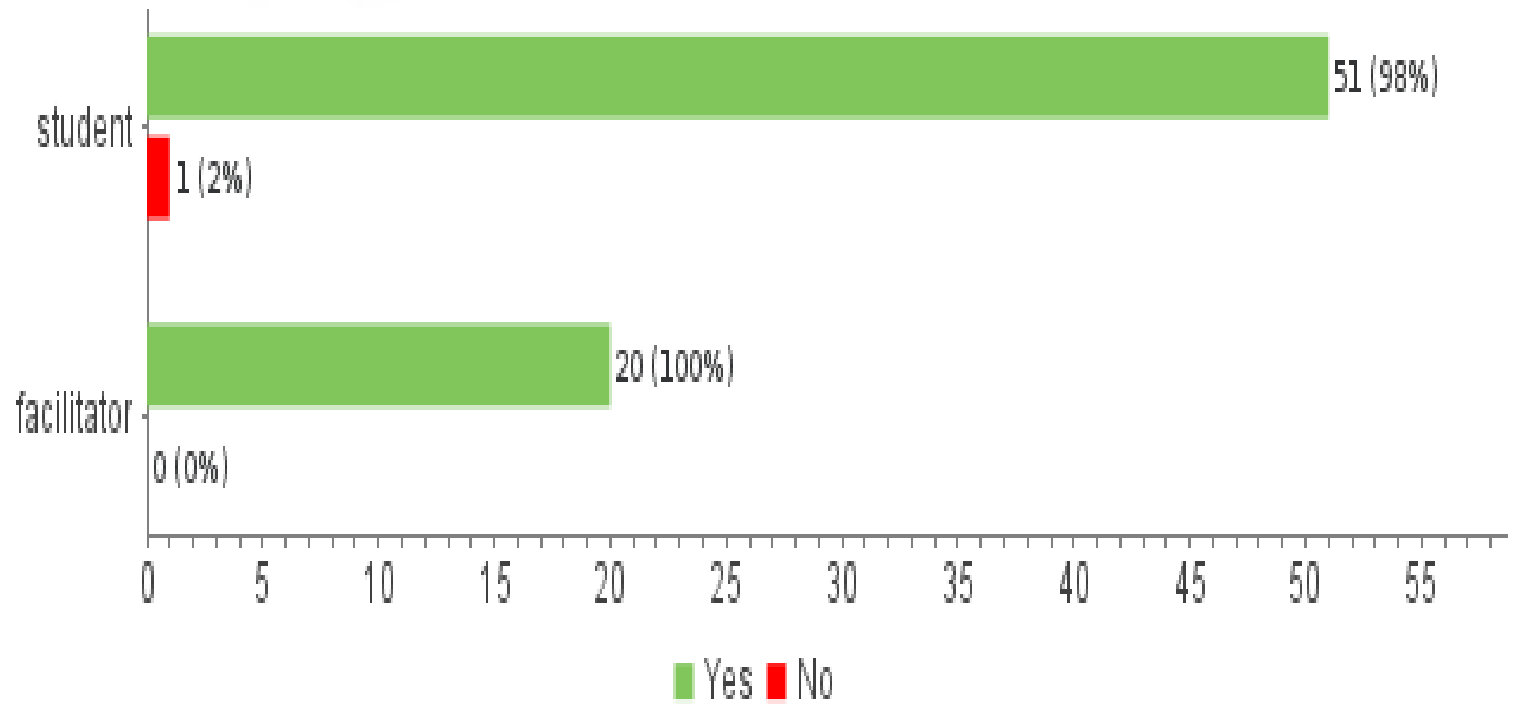


# Measuring Readiness for ML

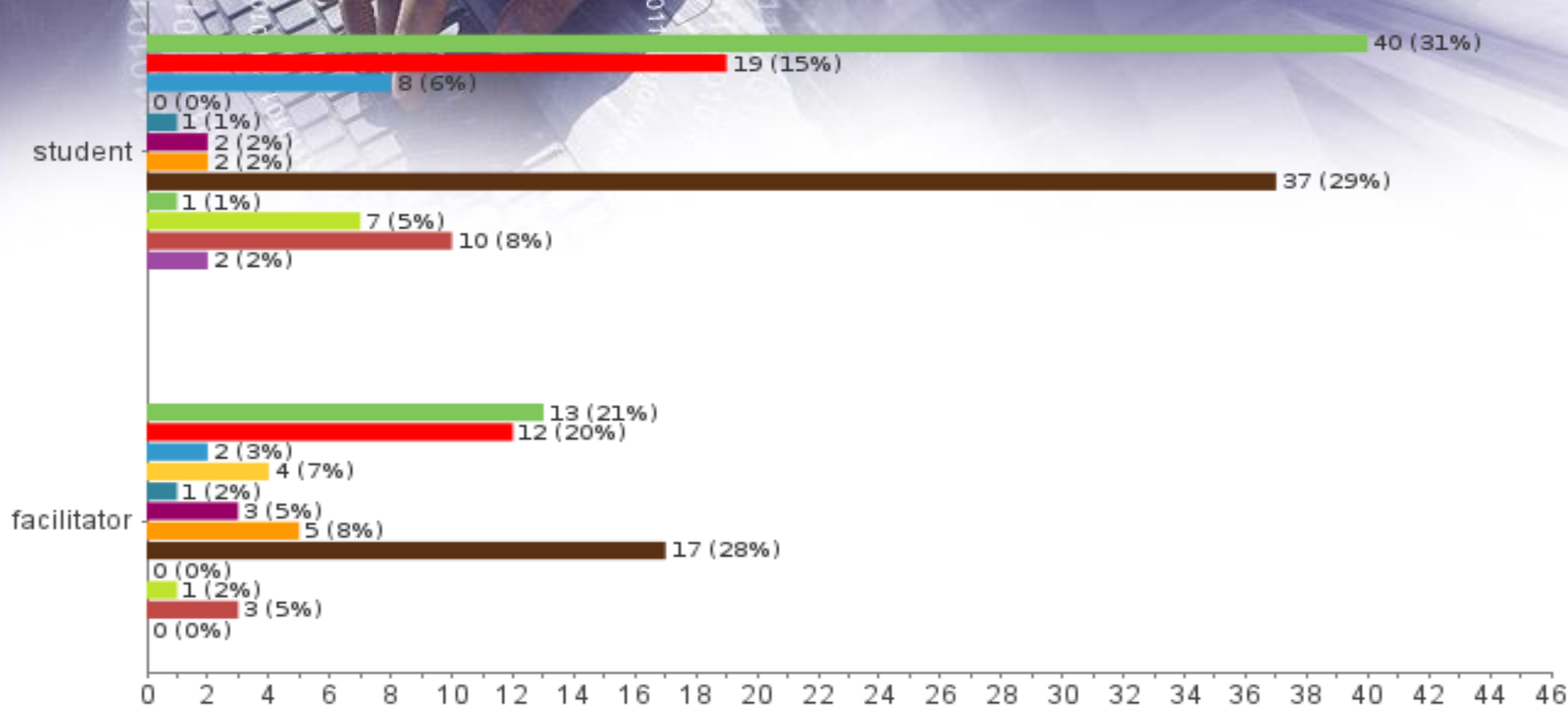
- Parasuraman (2000) Technology Readiness Index (TRI) scale, as discussed in Elliott, Hall, and Meng, (2008) agreed that any type of technology readiness should include forces that attract and repel individuals away from new technology.
- In Likert scale of Parasuraman (2000) these forces were captured by dimensions that dealt with (optimism, innovativeness)+ (discomfort and insecurity) -.
- These dimensions were modified to include only two broad dimension : + positive and - negative opinions of ML readiness were analysed (Q. 32).

# The Sample

STUDENTS - 55		FACILITATORS - 21	
<b>Gender</b>		<b>Gender</b>	
Male: 3	5%	Male: 6	29%
Female: 52	95%	Female: 15	71%
Total of 76 respondents			
<b>Age Range</b>		<b>Age Range</b>	
20 -29 yrs: 20	36%	20 -29 yrs: 1	5%
30 – 39 yrs: 16	29%	30 – 39 yrs: 3	14%
40 – 49 yrs: 13	24%	40 – 49 yrs: 5	24%
50 and over: 6	11%	50 and over: 12	57%

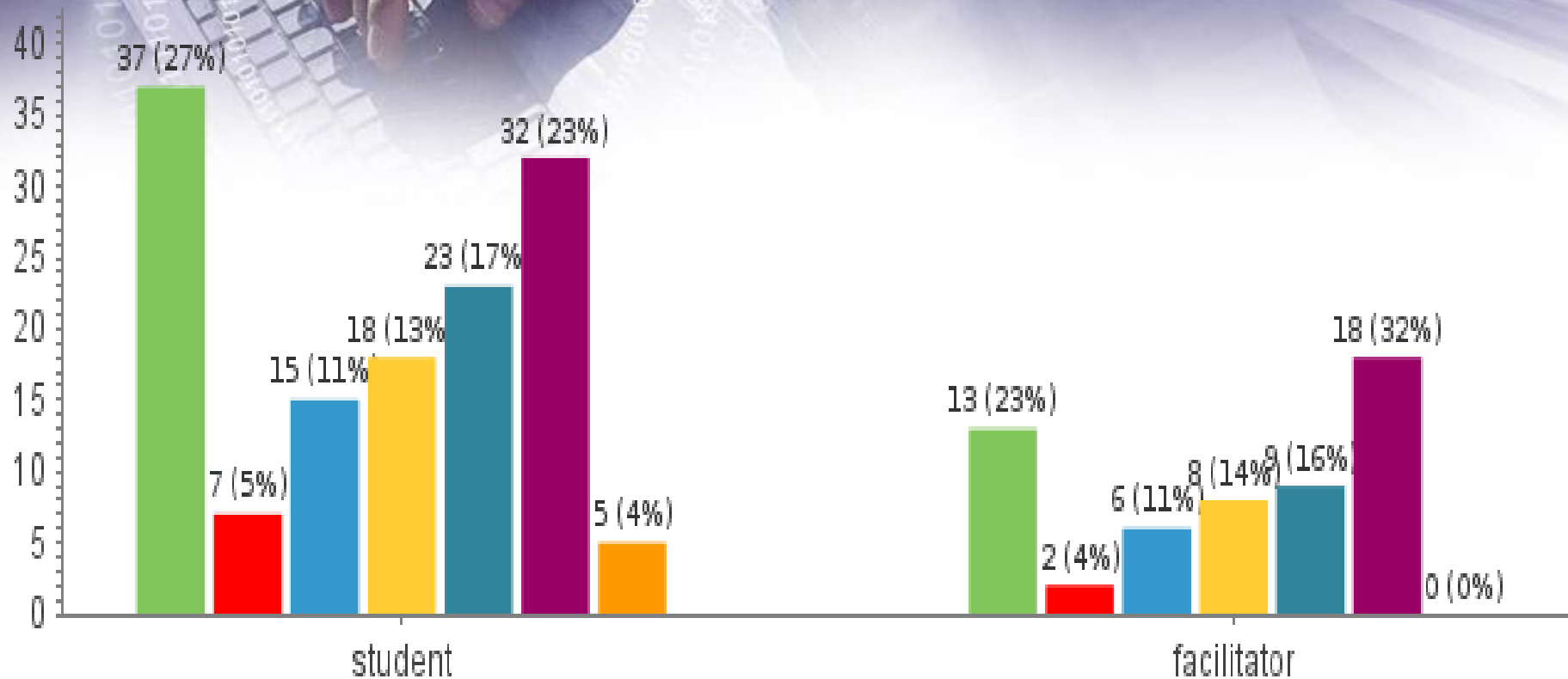


# Findings: Ownership of mobile devices



- regular cell phone (e.g. used for making calls and sending text messages)
- smart phone (e.g. Blackberry, iPhone etc. where you can take photos, record video, view documents, browse the Internet)
- simple mp3 music player (audio only) ■ ipod (e.g. shuttle, nano, classic) ■ ipod touch
- tablet PC e.g. iPad, Blackberry playbook, Samsung Galaxy Tab etc.)
- ebook reader (e.g. Kindle, Barnes & Noble Nook) ■ laptop ■ hand held PDA
- mobile digital gaming device (e.g. play station portable - PSP) ■ netbook ■ Other, please specify: © PoweredTemplates.com

# Reasons for ownership



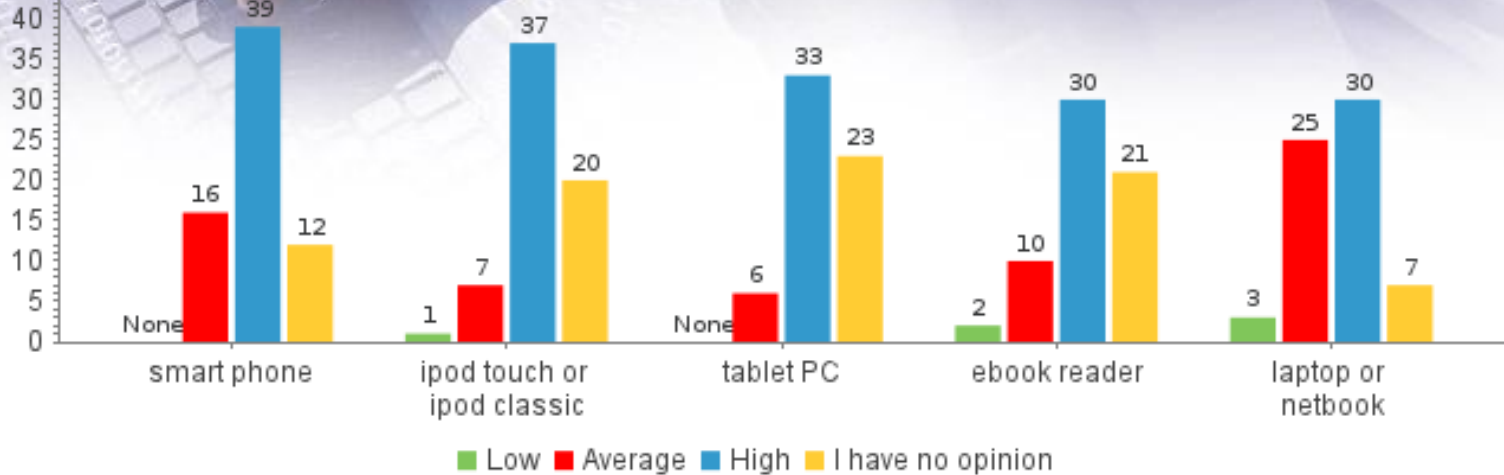
■ it makes my life easier ■ it is fashionable ■ it is small and light in weight

■ the information I need is always with me ■ it makes me feel more secure

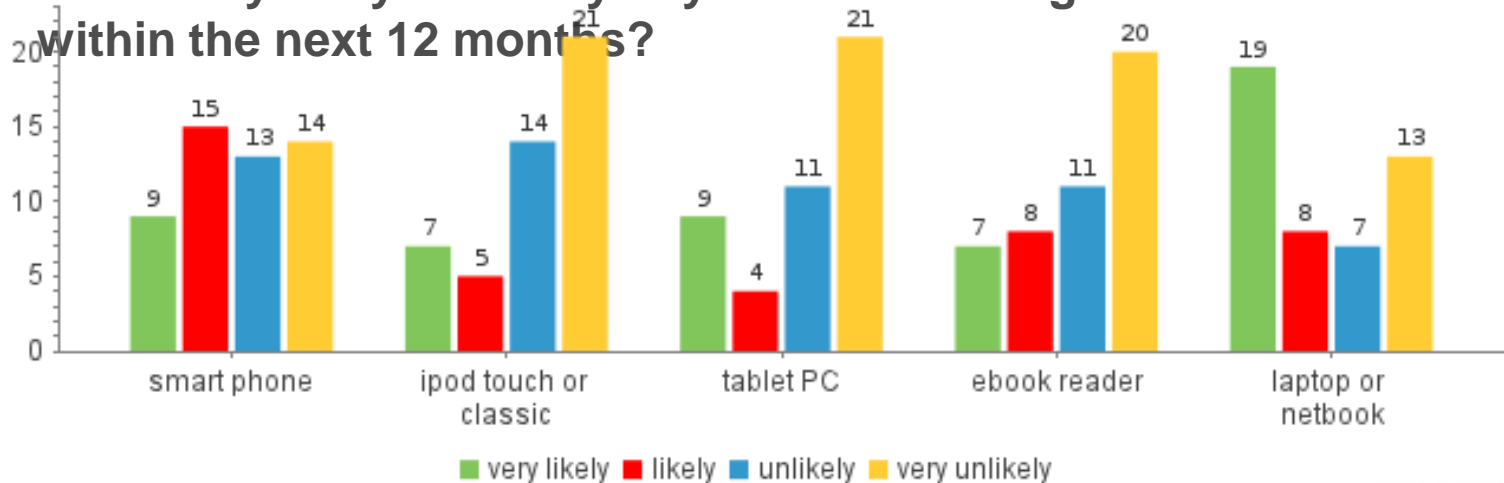
■ it makes me feel free to communicate everywhere and anywhere I am always connected). ■ Other, please specify:

# Findings: Willingness to purchase mobile devices

What do you think about the prices of the following?

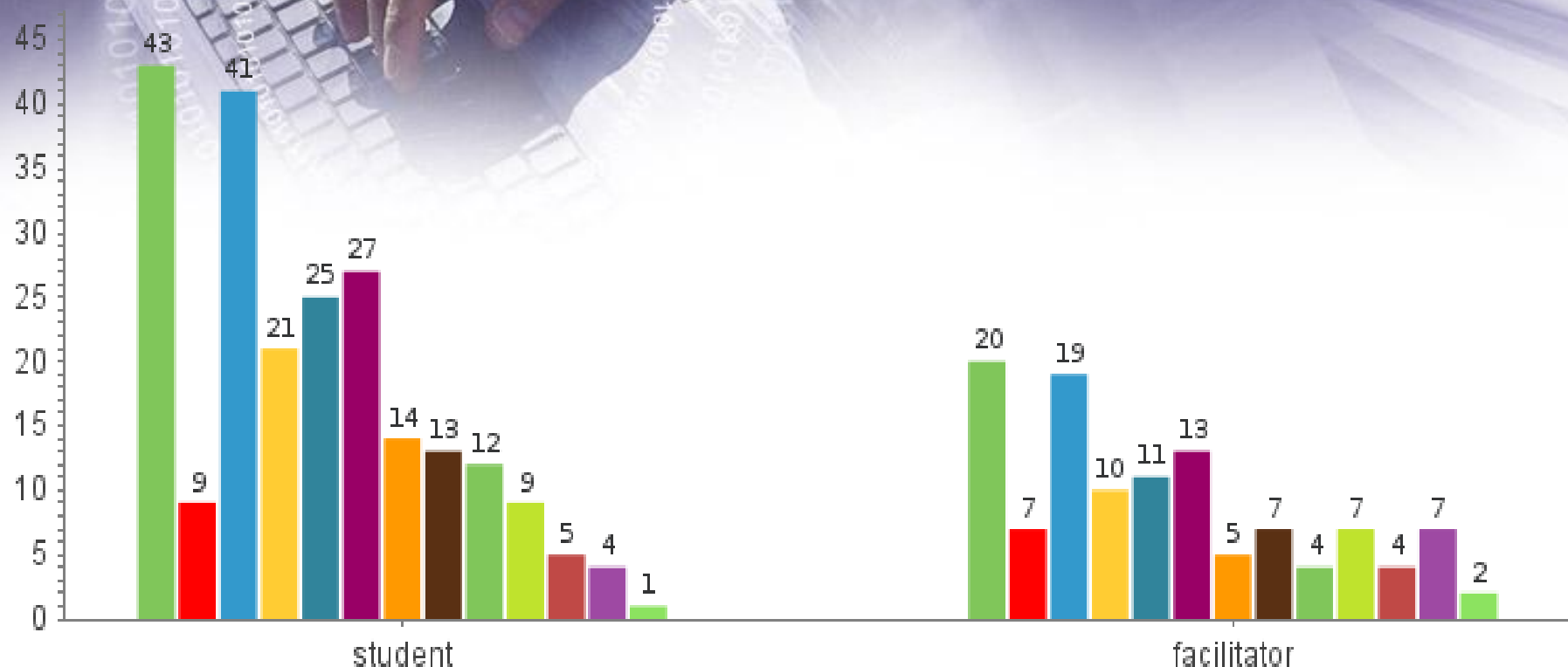


How likely are you to buy any of the following mobile devices within the next 12 months?



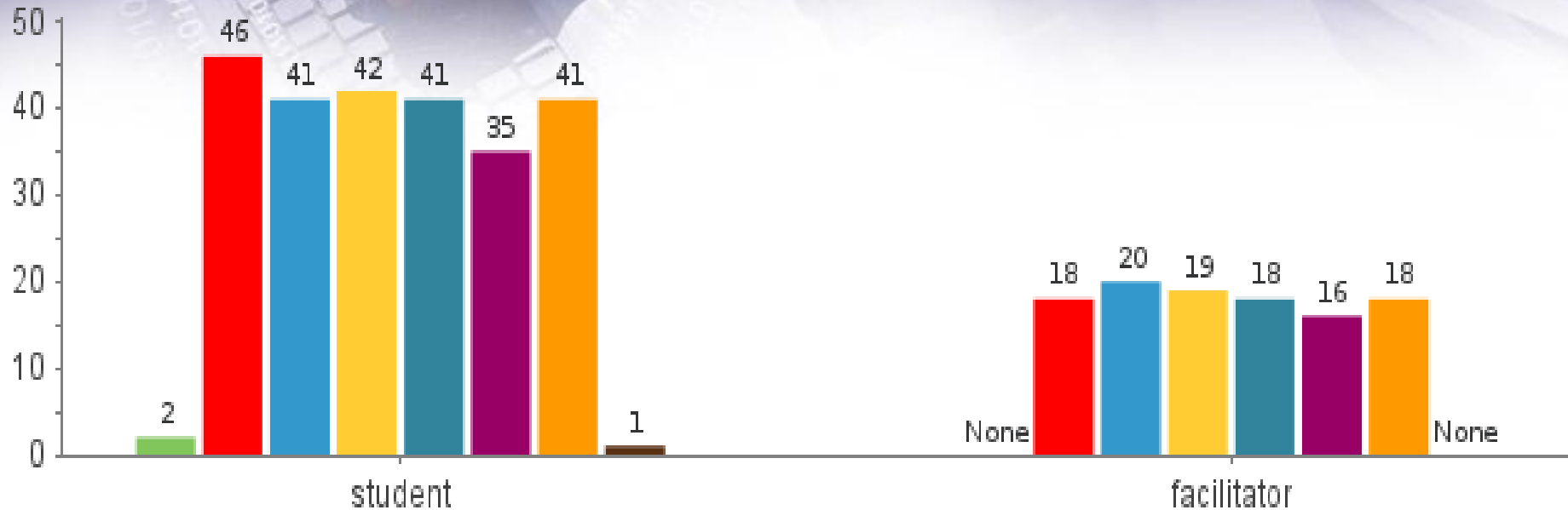


# Findings: Usage patterns and preference



- voice conversations
- web conferences
- text messaging
- browsing the Internet for recreational purposes
- browsing the Internet for educational purposes
- sending and receiving emails
- playing games
- downloading and / or listening to music or audio podcasts
- looking at movies
- accessing a variety of applications
- reading ebooks
- e-commerce (e.g. shopping, banking or making other online purchases or transactions)
- Other, please specify:

# How can mobile devices best serve you in education?



- I have no opinion
- For accessing educational content and resources
- For collaborating with teachers and students
- For communicating with teachers and students
- For sending and receiving emails and / or text messages
- For reading etextbooks and other ebooks
- For sending or receiving grades, schedules, announcements and other learner support information
- Other, please specify:

# Perception of utility

Statement	Students	Facilitators
ML has the potential to increase teaching and learning quality	94%	95%
ML can support traditional modes of instruction	91%	97%
Ready & willing to embrace ML	92%	95%
Traditional f2f instruction is more valuable than learning at a distance.	48%	32%

**More than 26% of students are not familiar with tablets and iPods (touch and classic) and ebook readers yet they indicated a willingness to use the most advanced mobile devices.**



# ML Readiness Conclusions

- **Must consider limitations of the study – B.Ed only,**
- **Majority owned cell phones but not smart phones and more advanced mobile devices**
- **Cost of devices and Internet services may be inhibitors to purchase**
- **Almost 50% of the students perceive f2f as better than distance education.**
- **Facilitators are more mobile savvy.**
- **Perceptions of fear, misunderstandings etc. still exist.**



# What's next?...Future Research

- **Research on ML in other SOE programmes DipEd, MEd, CertEd. – Broader perspectives....if it is affecting performance**
- **Research on the institutional perspectives of ML**
- **Explore a possible ML policy/procedure document to adequately prepare for students' BYOD (bring your own device) needs traversing the new blended learning policy and experiences**
- **Explore the technical staffs' perceptions and experiences of The Schools' ML needs**
- **Deeper analysis of (Q 23)- students' & facilitators' opinions, needed e.g. concerns of safety of data, reliability of Internet connections**



# References

**Abas, Z. W., Peng, C. L. & Mansor, N. (2009). A study on learner readiness for mobile learning at Open University Malaysia. IADIS International Conference Mobile Learning, 2009**

**Brink, J. (2011). M-Learning: The Future of Training Technology. T AND D, 65(2), 27-29.**

**Coens, J., Reynvoet, B., & Clarebout, G. (2011). Mobile learning. Can students really multitask? Journal of Educational Multimedia and Hypermedia, 20(1), 5-20.**

**Elliott, K.M., Hall, M.C., & Meng, J. (2008). Student technology readiness and its impact on cultural competency. College Teaching Methods & Styles Journal, 4(6), 11-21.**

**El-Hussein, M. O. M., & Cronje, J. C. (2010). Defining mobile learning in the higher education landscape. Educational Technology and Society Educational Technology and Society, 13(3), 12-21.**



**Hildreth, T. (2011). Five calls to make when developing a mobile learning strategy (white paper) from Skillsoft**

**[http://i.zdnet.com/whitepapers/Skillsoft\\_MobileStrategy\\_Paper\\_2011.pdf](http://i.zdnet.com/whitepapers/Skillsoft_MobileStrategy_Paper_2011.pdf)**

**Lam, P., Wong, S., Wong, K., & McNaught, C. Ownership and use of mobile technologies: planning mobile learning strategies for Hong Kong University.**

**Leib S. (1991) Principles of Adult Learning from**

**<http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/adults-2.htm>**

**Maharaj, K. (2006). Using m-Learning Technologies to Support Tertiary-level Education in the Caribbean**

**2011, from <http://pcf4.dec.uwi.edu/viewpaper.php?id=389&print=1>**

**Maharaj, K., & Mohan, P. (2006). Using m-Learning Technologies to Support Tertiary-level Education in the Caribbean. Paper presented at The Fourth Pan-Commonwealth Forum on Open Learning (PCF4).**

**<http://pcf4.dec.uwi.edu/viewpaper.php?id=389>**



**Murphy, J., & Pathak, P. (2003). The changing role of the Universities in supporting E-Learning & mobility in Higher Education. Paper presented at the World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2003, Phoenix, Arizona, USA.**

**<http://www.editlib.org/p/14480>**

**Parasuraman, A. (2000). Technology readiness index (TRI). A multiple-item scale to measure readiness to embrace new technologies, Journal of Service Research, 2 (4), 307-320.**

**Park, Y. (2011). A Pedagogical Framework for Mobile Learning: Categorizing Educational Applications of Mobile Technologies into Four Types. International Review of Research in Open and Distance Learning, 12(2), 78-102.**

**Traxler, J. (2007). Defining, Discussing and Evaluating Mobile Learning: The Moving Finger Writes and Having Writ... The International Review in Open and Distance Learning, 8, 1-13.**





- Traxler, J. (2009). Students and mobile devices: choosing which dream. Paper presented at the ALT-C 2009 "In dreams begins responsibility" - choice, evidence and change, Manchester. <http://repository.alt.ac.uk/643/>**
- Vogel, D., Kennedy, D., & Kwok, R. (2007). Do Mobile Device Applications Lead to Learning? Paper presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications 2007, Vancouver, Canada. <http://www.editlib.org/p/25436>**
- Yamaguchi, T. (2005). Vocabulary learning with a mobile phone. Program of the 10th Anniversary Conference of Pan-Pacific Association of Applied Linguistics, Edinburgh, UK.**



Thank you

