

Does Student Attitude Determine ICT Altitude in Higher Education:

Investigating the relationship between student attitudes towards ICTs and student success in an ODL environment



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Analytic focus

- A longstanding focus of research has been on monitoring the extent of **student access** to ICT, because it is an obvious precursor to technology use.
- However, recent conversations have moved towards a more **nuanced understanding** of student's **technological experiences**.
- It's not only about the **procedural ways** in which students use devices but the **way they think when** using them (i.e. engagement)

Aim

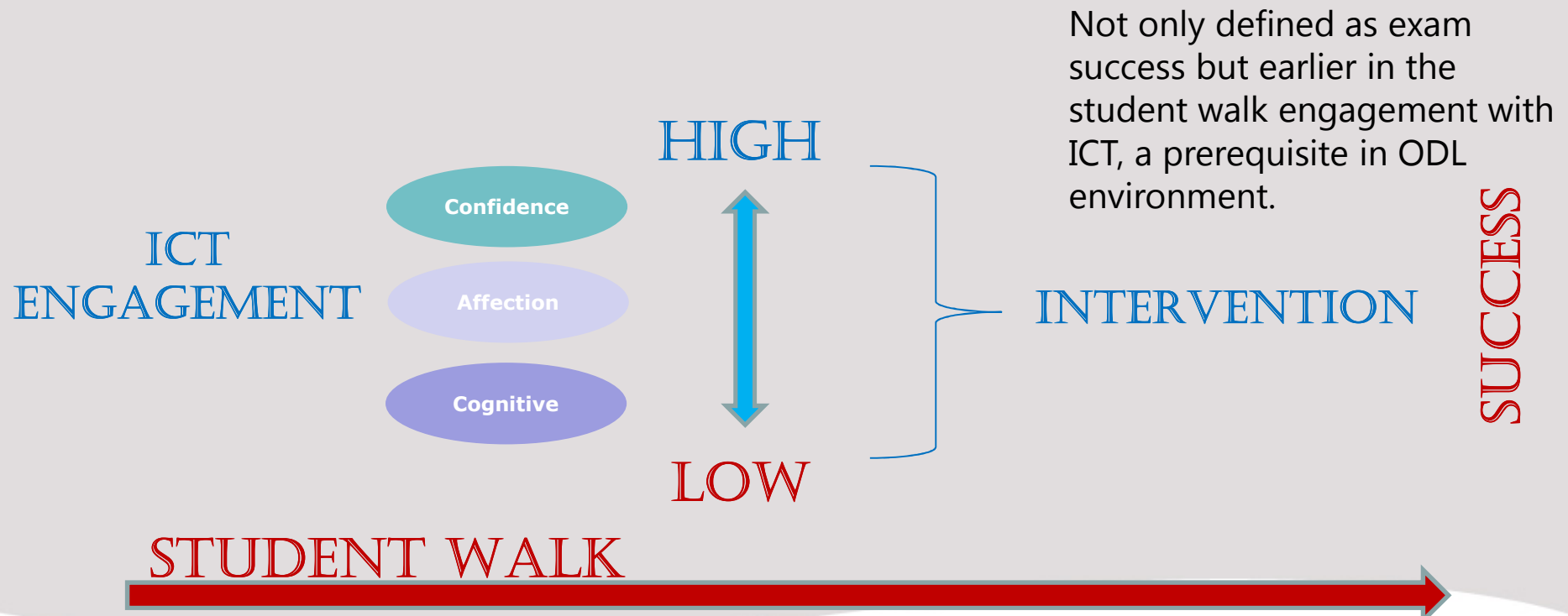
- The aim of this research is essentially to evaluate the role of attitudes in contributing towards levels of ICT sophistication and maturity. It includes **self-reporting on their associated attitudes when** using such technologies.
- More specifically, attitudes were investigating across dimensions of **confidence, affection and cognition**, in particular not only to better understand student success, but also to provide evidence that can be used to develop strategies and interventions to improve such success.

What does the literature say

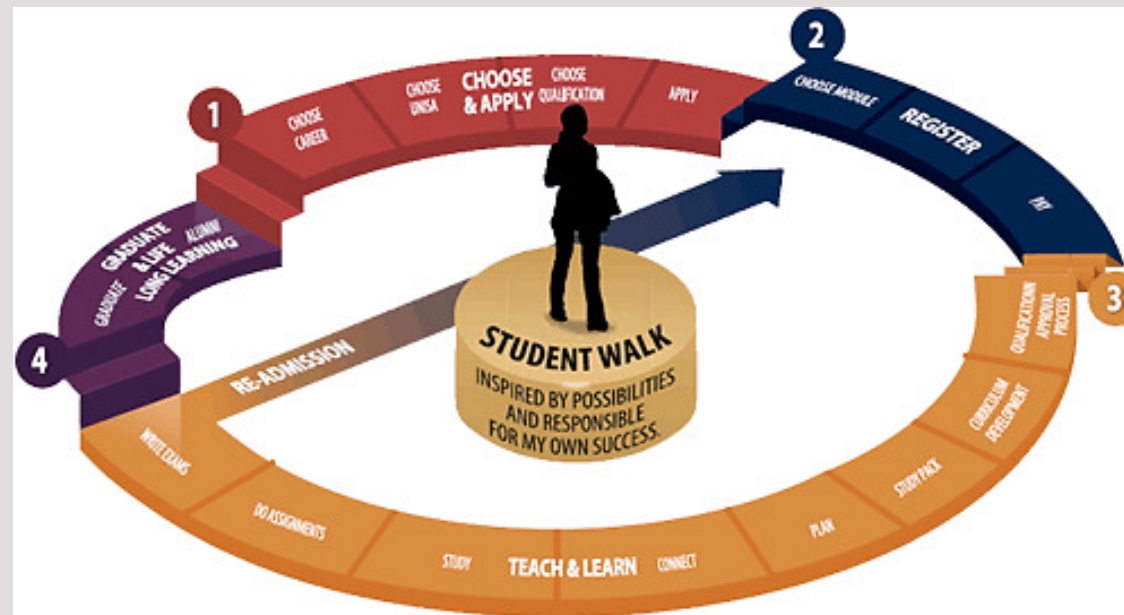
- In order to be a proficient user of ICT, one must have the **courage and confidence** to dive into the unknown, take calculated risks and even be willing to make mistakes when using ICTs.
- According to Seymour and Fourie (2004), simply having ICT's in higher education will **not guarantee their efficient and effective use**. Successful integration of ICT in higher education depends largely on the **competence and attitude** of the student (Escofet & Gros, 2009).
- An emerging discussion on ICT abilities revolves around the notion that through **frequent use of technologies** students become more competent users and the **level of their confidence increases as they** are more frequently exposed to using these technologies.

Conceptualisation

Evident from the results obtained from the 2013 ICT survey, the role of attitudes in contributing towards levels of ICT maturity is clear. More specifically, this pertains to the attitudes investigated across the dimensions of **confidence, affection and cognition**.



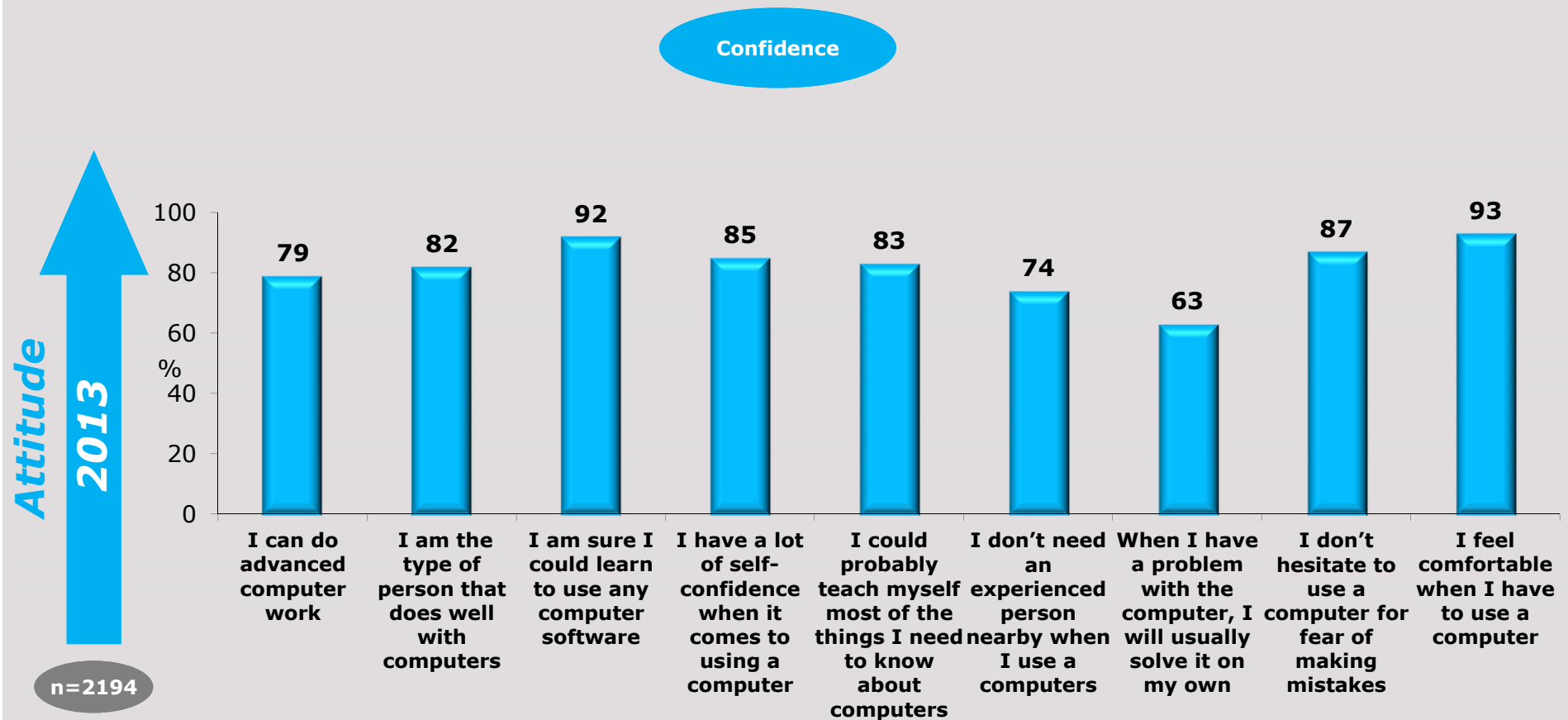
It is postulated that despite the **quantity and quality** of ICT technology used in higher education institutions, a **positive and conducive attitude towards technology** is as vital (Kadel, 2005). This paper **explores various dimensions of student attitudes towards ICT** in an open distance learning environment. This creates a platform to develop strategies for intervention that can ultimately lead to student success.



Why Attitude?

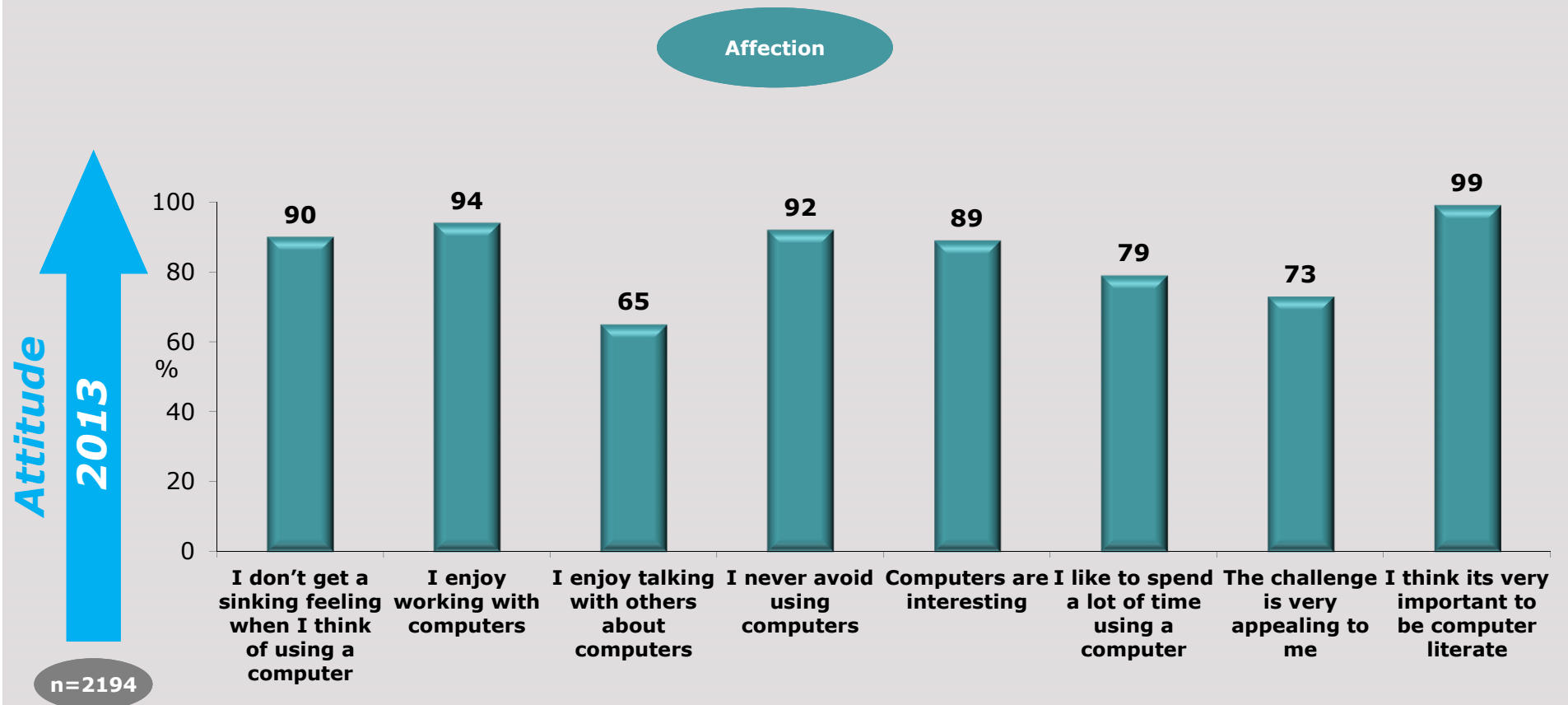
- More **positive attitudes** towards ICT were **associated** with higher levels **of computer experience** (Dyck & Smither, 1995; Teo, 2008).
- Lack of **confidence leads** to **reluctance** to use computers (Kumar & Kumar, 2003).
Attitude is a **major predictor** of **future ICT use** (Kennewell, & Morgan, 2003).

Survey Results



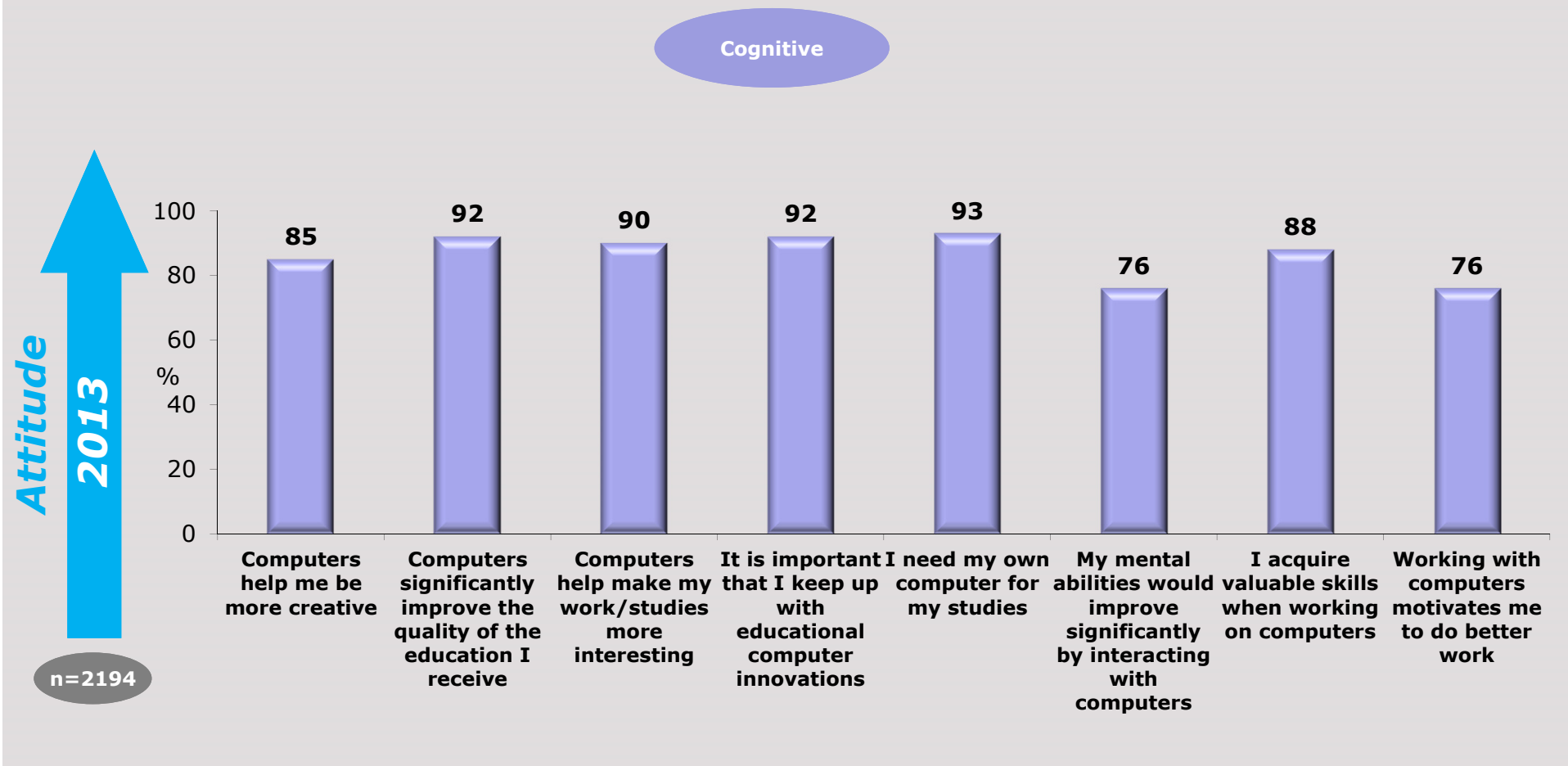
The majority of students **felt confident** when using a computer. Students also **expressed a willingness** to learn to use other computer software. This is clearly an **opportunity** to assist students that are willing to learn with grasping the more advanced software packages they are not familiar with.

Survey Results



Noteworthy is the 99% of students that believe computer literacy is important. It is clear from the results in the report that students have a **willingness to adapt to their learning environment** by **adopting more advanced ICT skills** and behaviours as it is to the benefit of the student.

Survey Results

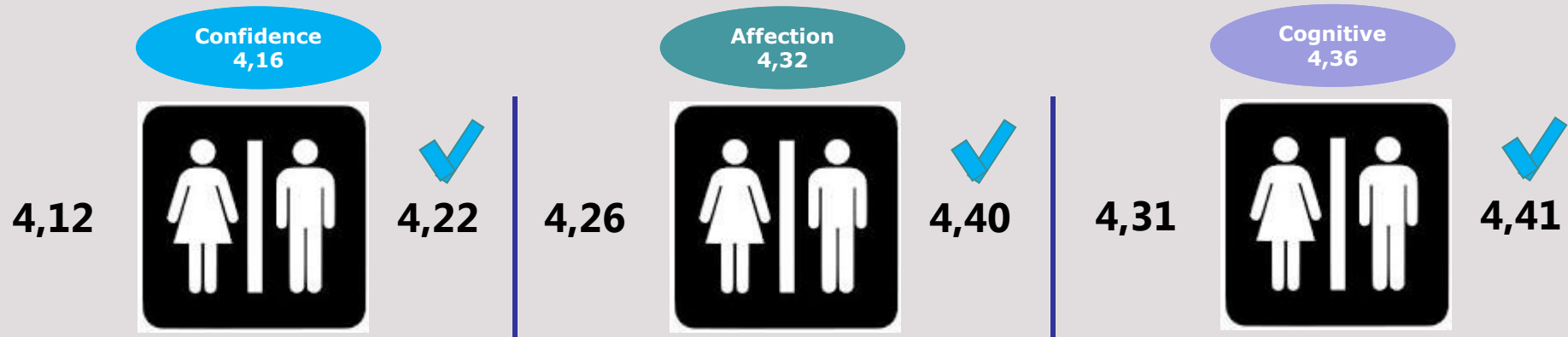


When unpacking the cognitive construct it is evident that the majority of students (92%) felt computers **significantly improve the quality of the education they receive**, along with the fact that students feel they **need their own computer** for study purposes (93%).

Student Success

- ICT is postulated to be an **important moderator and/or mediator between student learning and student success** in higher education in general.
- At Unisa, this link is regarded essential as the university explores the establishment of an ODeL (Open, Distance and eLearning) model of teaching and learning.
- However, **various institutional and cultural challenges confront** this move and need to be addressed to ensure future success of the University and its students.

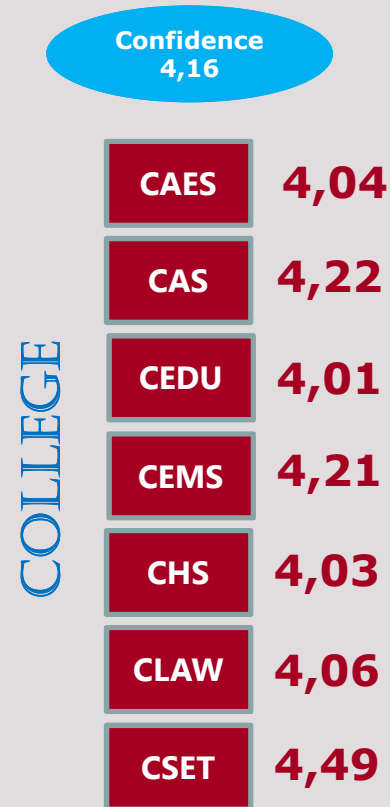
Differences in Attitude



Studies had established that females **tend to be less interested in ICT** and use them **less often** in their spare time (Schaumburg, 2001). Females also have more **negative attitude** towards ICT (Bebetsos & Antoniou, 2008), thus they are often less computer literate than their male counterparts.

However, Kirkpatrick and Cuban (1998) review had established that when female and male students **had the same amounts and types of experiences of computer**, females achievement scores and **attitudes are similar** to that of male's at all educational levels.

Differences in Attitude



Gender gap exist in **education in Africa** as most often **female students are deprived** of opportunity to gain ICT related knowledge and skills (Yusuf & Balogun, 2011). African women have the **lowest enrolment rates in the world in science and technology** education at all levels

Differences in Attitude

Confidence
4,16



Students from **lower socio economic status** tend to have **lower levels of confidence** when using ICT for educational purposes.

Past experience and limited experience??

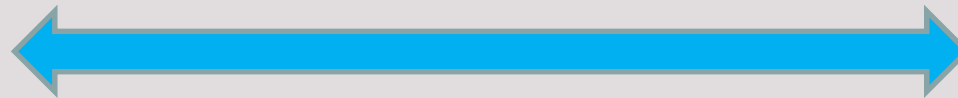
Differences in Attitude

Confidence
4,16

Age

Below 20	20-29	30-39	40-49	50-59	60-69	70+
4,33	4,31	4,28	4,11	3,92	3,64	1,61

HIGH



LOW

Differences in Attitude

Confidence
4,16

Ability to use: Internet browser

Poor	Fair	Average	Good	Very good
3,03	3,12	3,36	3,83	4,45

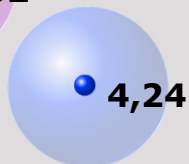
Frequency of use: Word processor

Never	Infrequently	Fairly frequently	Frequently	Very frequently
3,53	3,65	3,80	4,03	4,39

Yes



No



Do you struggle to navigate through websites?

Differences in Attitude

Confidence
4,16

What internet browser do you use most often?



4,11



4,16



4,32



4,04



4,37

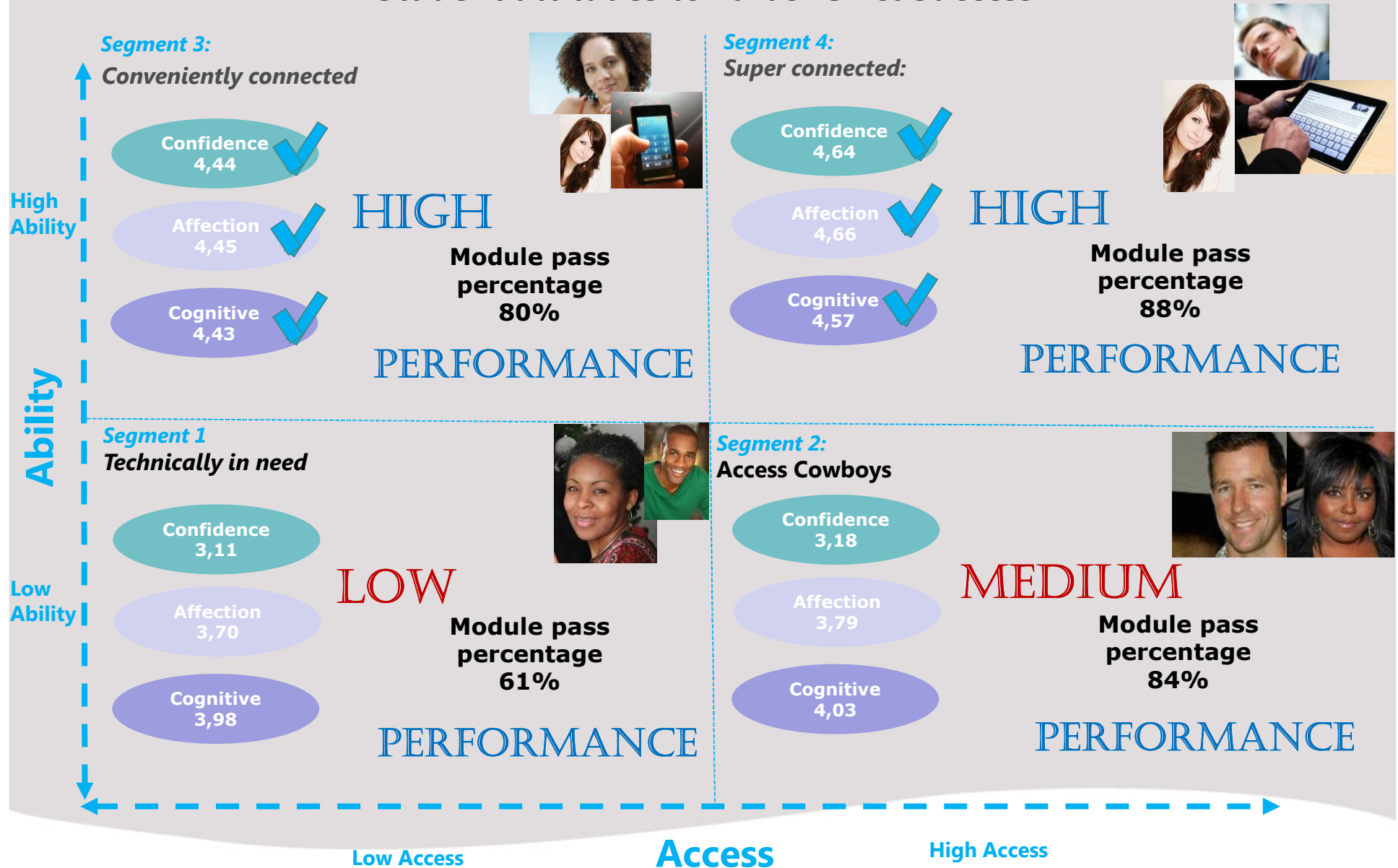
BRANDS

Apple	4,43
Samsung	4,28
Blackberry	4,19
HP	4,16
Nokia	4,03
Panasonic	3,55
Alcatel	2,77

The more students **explore on the Internet** the more **confident they** feel using it in future.

Segmentation: ICT Sophistication

Student attitudes towards ICT & Success



Conclusion

- While access to ICT is a prerequisite to academic engagement at Unisa, areas of **confidence, affection and cognition** should be developed to contribute towards ensuring student success.
- Towards a definition of ICT sophistication, maturity and engagement
 - One of several contributors towards ICT engagement and student success
- Mastering of ICT competency for the **educator** (using ICT as a tool for teaching)
- Lead by **example** (positive attitude of the educator and student)
- Raise **critical awareness** of ICT applications and tools in higher education
- Basic and educational ICT competence (**social use** and for educational purposes)
- Potential **interventions** could be a **basic ICT certification as an entry requirement** for all courses, or **integrating ICT skills into the curriculum**, which is accredited as part of the degree.

Thank you

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