# "We don't need no education"? Yes, they DO want e-learning in Basic and Higher Education!

## **ABSTRACT**

This inaugural lecture will feature seven datasets from module evaluations across four semesters and four modules, from 5027 University of South Africa students. The findings illustrate that these Higher Education students have access to Information and Communication Technologies (ICTs) and the Internet, overwhelmingly use myUNISA (the institutional e-learning management system), e.g. to submit their assignments and/or activities, for these modules, while their overall experience of these modules was positive and they would recommend these modules to other students. Regarding the Basic Education sector, I will describe 43 Gauteng district respondents' feedback regarding their e-schools being characterised as having (1) learners using ICTs to enhance e-learning; (2) qualified and competent managers using ICTs for planning, management and administration; (3) qualified and competent teachers using ICTs to enhance teaching and e-learning; (4) access to ICT resources supporting curriculum delivery; (5) connections to ICT infrastructure and (6) connections to their communities.

## **INTRODUCTION**

Information and Communication Technologies (ICTs) are increasingly playing a significantly meaningful role at local, national and global levels, where the use of these emerging technologies is affecting everyday life (Terzoli, Dalvit, Murray, Mini, & Zhao, 2005). ICTs generally affect government policies, as well as worldwide commercial and economic growth (Whelan, 2008). These are also specifically improving aspects of South African (SA) culture, together with citizens' sense of democracy, employment and economic growth within an information society (Mpehle, 2011). There appears to be "a deep grasp of the urgency, particularly for developing countries, to bridge the digital divide ... to achieve developmental goals and improve people's lives" (Surty, 2010).

In his capacity of Deputy Minister of Basic Education in South Africa, Surty (2010) further pointed out that various national departments provided legislative and policy frameworks that enable government strategies for improving and supporting the integration of ICT tools into teaching and e-Learning - these are key catalysts in the process of transforming education systems and public sector schools to equip their learners with 21st century skills.

As in many other countries, e-Learning has had a revolutionary effect on the development of the curriculum, and the delivery of school practice, in South Africa (Whelan, 2008). Many policy makers tend to understand Information and Communication Technologies as being limited to only "computers, satellite and internet technologies" (Evoh, 2007, p. 94). However, that author pointed out that more 'traditional' technologies such as radio and television also form part of the Information and Communication Technologies that can be used for supporting pedagogical curriculum delivery to improve effective and efficient teaching and e-Learning practices (Blignaut & Els, 2010).

An e-Learning policy, however, has a key role in the effectiveness of educational reform (Evoh, 2007). Fortunately, South Africa has already developed an own structured and focused e-Learning policy, including strategies for using Information and Communication Technologies to transform school teaching and e-Learning. These were set out in White Paper 7 on e-Learning that appeared in 2004 (Surty, 2010). Although Blignaut and Els (2010) pointed out that this is currently the only e-Learning policy in South Africa, Wilson-Strydom, Thomson and Hodgkinson-Williams (2005) believe that the integration of e-Learning into teaching has ascended on the educational agenda in South Africa with the release of this White Paper.

In the White Paper on e-Learning for transforming teaching and e-Learning through Information and Communication Technologies, the then Department of Education (2004, p. 17) responded to the forces and questions imposed by the information revolution on behalf of the education and training system in South Africa by setting out the following e-Learning policy goal:

"Every South African learner in the General and Further Education and Training bands will be ICT capable (that is, use ICT confidently and creatively to help develop the skills and knowledge they need to achieve personal goals and to be full participants in the global community) by 2013."

Two problems have been identified in this regard, with the purpose of the project reported on in this lecture being to make a significant and substantial contribution towards solving:

- 1) To what extent had the e-Learning policy goal been achieved, since the 'due date' (2013) has come and gone?
- 2) Ten years have passed since the publication of the White Paper on e-Learning. Referring to Donner and Escobari, Heeks (2010, p. 632) commented on "the issue of working in an area of fast-moving change. As such", the validity and continued relevance of assumptions and claims made in a ten year old policy document in the fields of Information and Communication Technologies and e-Learning may very well be time-contingent and need to be investigated.

Additionally, also mentioned was "the continuing paucity of the" associated research base. The next section, which sets out the conceptual and theoretical background and frameworks in terms of describing the details of this research, will supply additional information in terms of discussions underpinning this study - specifically, another objective of this research is to fill a major gap in knowledge identified in the literature.

### LITERATURE REVIEW

In existing research, a number of concepts / terminology relevant to this research are being confused, are used interchangeably and / or no clear distinction is drawn between certain terms. It is therefore necessary to not only clarify what these definitions refer to in education in general, but also to specify the way in which these will be understood in this research.

The e-Learning policy document fairly abstractly and technically defines Information and Communication Technologies as representing "the convergence of information technology and communication technology. Information and Communication Technologies are the combination of networks, hardware and software, as well as the means of communication, collaboration and engagement that enable the processing, management and exchange of data, information and knowledge" (Department of Education, 2004, p. 15). Information and Communication Technologies as resources for reorganising curriculum integration are also embraced.

Wilson-Strydom et al. (2005, p. 81) believe that e-Learning "is about integrating technology into one's lessons to support and enhance learning". In accord with the e-Learning policy document, they see e-Learning as being about more than just developing computer literacy and learning the skills needed to use different Information and Communication Technologies (Department of Education, 2004, p. 14). The policy explanation of e-Learning further highlights tool(s) and communication aspects, by envisioning Information and Communication Technologies as communication and collaborative tools for teachers, learners and managers to contribute to development. Finally, parallels with a quotation from Bill Gates are brought up when e-Learning is perceived as presenting "a learning environment that advances" not only creativity, but also engagement.

In the White Paper on e-Learning (Department of Education, 2004, p. 18), e-schools are characterised as institutions having:

- (1) e-Learner characteristics with regard to utilising Information and Communication Technologies to enhance social and collaborative e-Learning;
- (2) qualified and competent managers using Information and Communication Technologies for the planning, management and administration of integrated e-Learning in their educational environments;
- (3) the adoption of e-Learning by qualified and competent teachers using Information and Communication Technologies to enhance their teaching and e-Learning;
- (4) access to ICT resources supporting "curriculum delivery; and
- (5) connections to ICT infrastructure."
- (6) Additionally, "e-schools will connect with the community by:
  - allowing community access to its computer facilities after hours;
  - receiving support from the community and local SMMEs to maintain and sustain ICT interventions; and
  - serving as a venue for business advisory services and training for community based small computer and repair businesses."

The years since the advent of a new democracy in South Africa in 1994 has seen the development of dramatic changes "throughout the education and training system as part of the democratisation process" (Blignaut & Els, 2010, p. 109). These aim to redress inequalities and provide access to new e-Learning opportunities (Department of Education, 2004, p. 19). Both Park and Van der Merwe (2009, pp. 356 - 357) and Surty (2010) therefore find it imperative to understand the contribution that advances in e-Learning could make towards demonstrating the unflinching commitment to education transformation of the South African government.

Mouyabi (2011, p. 1178) believes that the introduction of e-Learning into the higher education community has necessitated new approaches, such as the creation and implementation of supple platforms and tools, being adopted as an alternate system towards improving the quality of teaching and e-Learning (Sesemane, 2007, p. 643). The latter author, however, also warned that the implementation of e-Learning policies represents "a highly contested domain within the South African Higher Education landscape." Although the abstract of that author's article indicated that an analysis of the South African e-Learning policy and the impact thereof on higher education would be provided, that indication was not realised. The current research project will therefore aim to provide an analysis of the progress being made on the implementation of the e-Learning policy in South African.

Due to the magnitude of the task of implementing the e-Learning policy goal, the White Paper acknowledged the massive investment required (Blignaut & Els, 2010), calling for a long-term implementation "strategy that will provide a framework for specific priorities and actions" set out in a multi-year programme (Department of Education, 2004, p. 38). Strategic objectives for using Information and Communication Technologies to turn "schools into centres of quality learning and teaching for the" 21<sup>st</sup> century was thus established (Department of Education, 2004, p. 6).

In order for teachers to respond to their changing workplace requirements, they must develop the necessary skills "to maximise the usefulness of" e-Learning for educational purposes (Dagada, 2004, p. 110). It is therefore of the utmost importance that increased access to Information and Communication Technologies for teaching and learning and the provision of software must go hand-in-hand with adequate professional development of teachers and the actual implementation of e-Learning (Department of Education, 2004, p. 13). If teachers do not make use of e-Learning and / or are not trained to effectively handle the challenges that using e-Learning in their classrooms might

present, it is highly unlikely that any significant improvements will be obtained. Thomen (2005, p. 820) found that teachers "viewed professional development as a broad concept that encompasses their practice, the community and the teaching profession within a global context". All managers, teachers and administrators in schools should have access to the knowledge, skills and support needed for creating opportunities to integrate e-Learning into the curriculum (Surty, 2010). Thomen (2005, p. 813), however, also warned that the "process of implementing educational change to improve the quality of professional practice" can be difficult. Higher Education Institutions (HEIs) are therefore encouraged to strengthen teacher training, as well as their participation in other education events with regard to education pedagogy, for application in educational contexts.

The school curriculum should be supported by ensuring that a comprehensive set of effective, engaging and sustained software, electronic content, "resources, tools and information across all grade levels and subjects in multiple South African languages are freely accessible online (Mpehle, 2011, p. 714). e-Learners, teachers, administrators and content developers are encouraged to reuse, adapt and contribute effectively to such resources.

A significant contribution towards improving the quality of teaching and e-Learning needs to be made by expanding the access of all teachers and learners to Internet "connectivity in both primary and secondary schools" (Surty, 2010). All learners, teachers, managers and administrators also need access to e-Learning infrastructure. One of the major challenges for the success of e-Learning involves institutions being able to allow teachers and learners to have increased regular access to reliable e-Learning infrastructure "that is specifically suited to Africa" (Department of Education, 2004, p. 10). Accountability mechanisms, however, also have to be put in place to properly maintain such infrastructure (Evoh, 2007).

Schools should work in partnership with families and the wider community in ensuring shared knowledge about e-Learning and creating extended opportunities for community member e-Learning and development through Information and Communication Technologies (Mpehle, 2011).

The best way to learn and understand how to improve practice is through research, evaluation and collaboration. To this end, the South African government aims to bring together e-Learning teachers, researchers and the ICT industry in action-oriented research, to evaluate and develop leading-edge applications for e-Learning. Research and development communities, as specifically represented by Higher Education Institutions, can support education departments by sharing the e-Learning knowledge and research produced at South African Higher Education Institutions (Terzoli et al. 2005). This can be achieved by continuously assessing current practices, and exploring and experimenting "with new technologies, methodologies and techniques that are reliable and will support" teachers and administrators in e-learning and e-administration (Department of Education, 2004, p. 33). Research on e-Learning should not only "be closely linked to other general research on learning", but also to practice. Since the education "profession has an obligation to play an important role in generating ideas, testing prototypes and implementing strategies", they, in collaboration with the Departments of Higher Education and Training, Basic Education, "Communications and Science and Technology," Higher Education Institutions and research agencies, will need to "formulate a research agenda on" e-Learning.

These objectives from the e-Learning policy provide a strategic framework within which different governmental departments, provincial education departments, business and industry, non-profit organisations, Higher Education Institutions, general and further education and training institutions, local communities and other stakeholders can collaborate to respond to the challenges required by e-Learning. This could be achieved by ensuring "that institutions are supported to meet the needs and interests of" learners and communities to implement e-Learning (Department of Education,

2004, p. 37).

## **RESEARCH METHODOLOGY**

A mixed-methods study was decided upon, with a triangulation design being followed, combining both qualitative and quantitative modes of inquiry or approaches to research for collecting data (McMillan & Schumacher, 2010).

According to McMillan and Schumacher (2010, p. 21), quantitative research designs put emphasis on objectivity in identifying, measuring and describing the characteristics of phenomena. One of the two sub-classifications with-in quantitative research is non-experimental research designs, that explain events and observe relationships between various phenomena without directly influencing circumstances, which are experienced – two of these non-experimental designs will be applicable in this project, descriptive and survey (McMillan & Schumacher, 2010, p. 22). Research that uses a descriptive design offers a review of a current phenomenon that uses numbers to characterise, in the case of this project, particular schools, by assessing the features of current circumstances. The purpose, however, of the majority of descriptive research is restricted to describing something as it is.

Quantitative research will mainly be used in a form of a survey questionnaire. When using a survey research design, investigators select a sample of participants for administering a questionnaire, to collect data about these participants' opinions, attitudes, beliefs and other types of information, by asking them certain questions. Surveys are regularly used in educational research for describing attitudes and information as described in the previous sentence. Typically, research is designed in order to obtain information regarding a sizeable quantity of individuals (the population), by inferring based on the replies acquired from a reduced collection of subjects (the sample) (McMillan & Schumacher, 2010, p. 23). In the structured queries (also termed reduced options questions) used, participants are provided with a suitable list of choices (McMillan & Schumacher, 2010, p. 206).

On the other hand, when using qualitative designs, most data take the form of words, as opposed to figures, and generally, researchers search through and explore these until they develop a deeper understanding. A case study research design studies a restricted system (the so-called 'case'), that employs numerous sources of data located in the situation. In this project, each case is represented by a particular school, with a collection of persons limited by time and location. Each case is selected for use as an example of a particular instance. In this project, the focus will be on several entities (schools), making this a multi-site study (McMillan & Schumacher, 2010, p. 24). Research sites in this lecture consist of schools from a specific district in South Africa. Aspects of an interactive qualitative research design is also used in the form of a phenomenological study (McMillan & Schumacher, 2010, p. 23), attempting to describe participants' perceptions, perspectives and understandings.

The use of multi-method strategies could produce diverse insights regarding topics of interest and augment results' credibility (McMillan & Schumacher, 2010). These strategies also allow for data triangulation across inquiry techniques and provide the mechanisms for mutual support between qualitative and quantitative research - enabling researchers to verify the degree to which assumptions based on qualitative information are reinforced by quantitative perspectives, or the other way around. McMillan and Schumacher (2010) indicated such triangulation as being critical for the facilitation of interpretive validity.

The use of a variety of strategies to enhance validity is required in especially qualitative research, since the validity of such designs include the extent to which perceptions and interpretations made had shared meaning between participants and the researcher. Several resources ought to be

employed for comparing results with each other, for ensuring the internal validity of qualitative research. As suggested by McMillan and Schumacher (2010), decisions were therefore made on how to ensure that the data collected was valid, for example by obtaining advice from expert researchers on the questions used, to ensure internal validity in terms of causal inferences, and by obtaining detailed descriptions of participants and their environments for the facilitation of external validation and generalizability.

In agreement with suggestions by McMillan and Schumacher (2010), less experienced researchers can have their qualitative data analysed independently by another more experienced researcher, who had not been involved in obtaining the data - this provides another method for enhancing validity. Then, once agreement had been reached on the descriptive data collected, results can be compared and integrated to obtain a full representation of the applicable participants and their environments.

### **DISCUSSION OF FINDINGS**

## Table 1: Students' countries of residence

Although the overwhelming majority of respondents for each run of the surveys for each of these courses were from South Africa - reflecting the composition of the course populations - respondents from other Southern African and African countries, as well as from across the world, participated in these surveys - see Table 1 for the full list of 32 countries.

# Table 2: I studied full / part-time

The majority of respondents (around three-quarters in most cases) studied part-time for these courses.

# Table 3: I am repeating the module

Less than a third of respondents were repeating these courses during the first and second semesters of 2014 and 2015.

More specifically, for the first semester of 2014, 30% of EUP1501 respondents indicated that they were repeating the course. In a previous conference paper (Goosen, 2015), the author reported that the percentage of students from a sample in the second semester of 2014 showed that only 23% of them were repeating this course - this combination seems to indicate that the application of creative assessment strategies is leading to improved student retention and success, as less students are progressively repeating the course.

## Table 4: My overall experience of the module was positive

Although students in the study as reported by Van Hentenryck and Coffrin (2014, p. 679) found that "the course material was challenging", they learned a lot (also see e.g. comments related to Table 8 in Goosen (2015a, p. 44)) and their "overall experience was very positive." Similar to what Van Hentenryck and Coffrin (2014, p. 682) related, more than half of the students either agreed or strongly agreed that "they had a positive overall experience in" these courses, with more than a third of them strongly agreeing for BPT1501!

# Table 5: Would you recommend this module to other students?

Similar to what was described by Van Hentenryck and Coffrin (2014), the courses discussed in this lecture was highly popular amongst students: when asked whether they would recommend these courses to other students, at least two-thirds of all students surveyed replied 'Yes', with an overwhelming 87% in the case of BPT1501 and more than three-quarters of students surveyed each for ICT1512 and IAD3701!

Please note that the information portrayed in Tables 6 to 12 were only collected for Signature Courses (i.e. EUP1501 and BPT1501) from the second semester of 2014 onwards.

Also note that numbers and percentages as indicated for EUP1501-S2-2015 in Tables 6 to 8, 11, 12 and 17, I calculated myself from the data files as provided, as these had not been provided as part of the reports for these surveys, as was the case for all other information sets provided.

Table 6: How do you feel about the online approach to this module?

	EUP1501	-S2-2014	EUP1501	-S1-2015	EUP1501	L-S2-2015	BPT1501	-S1-2015
Dislike	138	12%	46	11%	39	11%	10	5%
Extremely	130	12/0	40	11/0	39	11/0	10	370
Dislike Very	96	9%	24	6%	29	8%	12	6%
Much	96	9%	24	0%	29	670	12	0%
Neither Like nor	249	22%	88	22%	92	25%	47	22%
Dislike	249	22/0	00	22/0	92	23/0	47	22/0
Like Very Much	500	44%	192	47%	151	42%	103	49%
Like Extremely	141	13%	57	14%	50	14%	38	18%

Two-thirds of all BPT1501 respondents either liked the online approach to these courses very much or "Extremely"! Although the joint figures related to this statement for EUP1501 are slightly less, all of these still account for more than half of all such respondents.

Table 7: How important is a digitised education in preparing you for the 21st century workplace?

	EUP1501	-S2-2014	EUP1501	-S1-2015	EUP1501	-S2-2015	BPT1501	-S1-2015
Not at all	29	3%	12	3%	9	2%	1	0.5%
Important		370		370	J	270	_	0.570
Very	100	9%	25	6%	11	3%	18	9%
Unimportant	100	970	25	0%	11	370	10	970
Neither								
Important nor	127	11%	26	6%	29	8%	26	12%
Unimportant								
Very Important	543	48%	199	49%	186	52%	106	50%
Extremely	325	200/	1.45	260/	126	250/	Ε0	28%
Important	325	29%	145	36%	126	35%	59	۷۵%

85% and 86% of the EUP1501 respondents for the first and second semesters of 2015 respectively deem a digitised education very important or extremely important in preparing them for the 21st century workplace. Although similar totals for EUP1501-S2-2014 and BPT1501-S1-2015 are slightly lower, both of the latter represent more than three-quarters of all respondents.

Please note than for data presented in Tables 8 to 12, students were requested to select all options that applied - totals therefore are larger than the number of respondents who had completed these data sets.

EUP1501 respondents for both 2015 semesters indicated that 82% of them had access to laptops, even if it was not their own - percentages for EUP1501-S2-2014 and BPT1501-S1-2015 are slightly lower, but both of the latter represent around three-quarters of all respondents (see Table 8). Around two-thirds of all respondents also have access to a smart phone, while more than half of all respondents across these four surveys had access to a desktop computer.

Around three-quarters of all respondents across these four surveys mostly access the computer / device(s) they specified in Table 8 from **home** (see Table 9). More than half of respondents for all three of the EUP1501 samples also have access to these devices from work, but this number represents just more than a quarter for the BPT1501 respondents.

Table 8: Do you have access to one or more of the following, even if it is not your own?

	EUP1501	-S2-2014	EUP1501	L-S1-2015	EUP1501	L-S2-2015	BPT1501	-S1-2015
Computer (desktop)	697	62%	223	55%	201	57%	113	54%
Laptop	830	74%	334	82%	291	82%	162	78%
Netbook	35	3%	19	5%	12	3%	3	1%
Tablet	297	27%	140	34%	122	34%	64	31%
Smart phone	701	63%	239	59%	240	68%	151	72%
Other	20	2%	12	3%	14	4%	6	3%
I do not have access to any of the above	33	3%	13	3%	6	2%	3	1%

Table 9: From which location do you mostly access the computer / device(s) you specified?

	EUP1501	-S2-2014	EUP1501	L-S1-2015	EUP1501	-S2-2015	BPT1501	-S1-2015
Home	774	71%	308	78%	259	73%	158	77%
Work	635	58%	236	60%	179	51%	57	28%
Someone else's home	56	5%	23	6%	25	7%	15	7%
Unisa Computer Laboratory	187	17%	83	21%	86	24%	31	15%
Tele-centre (Unisa Multipurpose Community Centre)	27	2%	11	3%	13	4%	8	4%
Internet café	144	13%	50	13%	52	15%	37	18%
Other	27	2%	15	4%	10	3%	7	3%

Around three-quarters of all respondents across these four surveys access the Internet using a laptop (see Table 10). The percentages of respondents who access the Internet using a desktop computer and / or smart phone are roughly equal across all four of these samples, and in each case represent more than half of all respondents. It is interesting to note that almost two-thirds of EUP1501-S2-2014 access the Internet using a desktop computer, while the about the same percentage of BPT1501 respondents use a smart phone.

More than two-thirds of all respondents across these four surveys mostly access the Internet for study purposes from **home** (see Table 11), with three-quarters of BPT1501 respondents indicating this! In line with what was indicated in table 9, although around half of all EUP1501 respondents across the three semesters access the Internet for study purposes from work, only a quarter of BPT1501 respondents selected this option. While around a quarter of EUP1501 respondents indicated that they access the Internet for study purposes using a mobile device, a slightly higher third of BPT1501 respondents used this option.

Table 10: From which source(s) do you access the Internet, even if it is not on your own?

_	EUP1501	L-S2-2014	EUP1501	L-S1-2015	EUP1501	L-S2-2015	BPT1501	-S1-2015
Computer (desktop)	660	61%	210	53%	188	53%	106	52%
Laptop	741	69%	299	76%	259	74%	141	69%
Netbook	18	2%	10	3%	8	2%	3	1%
Tablet	245	23%	115	29%	92	26%	55	27%
Cellphone / Smart phone	604	56%	213	54%	199	57%	128	62%
Other	16	1%	9	2%	5	1%	4	2%
I do not have access to any of the above	2	0.2%	0	0%	0	0%	0	0%

Table 11: From which location do you mostly access the internet for study purposes?

	EUP1501	L-S2-2014	EUP1501	-S1-2015	EUP1501	-S2-2015	BPT1501	-S1-2015
Home	739	68%	280	71%	250	71%	154	75%
Work	584	54%	219	56%	155	44%	52	25%
Someone else's home	56	5%	20	5%	22	6%	18	9%
Unisa Computer Laboratory	174	16%	75	19%	87	25%	32	16%
Tele-centre (Unisa Multipurpose Community Centre)	21	2%	11	3%	5	1%	6	3%
Internet café	133	12%	42	11%	53	15%	35	17%
Other	23	2%	12	3%	6	2%	5	2%
Mobile device (e.g. cellphone, smart phone, tablet)	259	24%	106	27%	100	28%	68	33%

Around half of all respondents across these four surveys indicated the kind of Internet access that the computer / device(s) they have used as 'Cellphone / Smartphone / Tablet device with 4G / LTE / 3G / HSDPA', with this percentage going up to almost two-thirds for BPT1501 respondents (see Table 12). Although almost half of all EUP1501 respondents across the three semesters indicated that they use a 4G / LTE / 3G / HSDPA modem (i.e. high-speed mobile connection), this percentage is barely over a third for BPT1501 respondents. Although almost half of the EUP1501-S2-2014 and EUP1501-S1-2015 respondents indicated using a company Local Area Network (LAN), this figure for S2-2015 is just over a quarter, while only 24 BPT1501 respondents indicated this (presumably for schools?). Finally, around a third of all respondents across these four surveys indicated using ADSL (e.g. from Telkom, MWeb, etc.).

Table 12: What kind of Internet access does the computer / device(s) you use have?

	EUP1501	-S2-2014	EUP1501	-S1-2015	EUP1501	L-S2-2015	BPT1501	-S1-2015
ADSL (e.g. from Telkom, MWeb, etc)	324	30%	133	34%	117	33%	74	36%
Company LAN (Local area network)	446	41%	156	40%	97	28%	24	12%
4G / LTE / 3G / HSDPA modem (i.e. high-speed mobile connection)	435	40%	176	45%	149	42%	70	34%
Cellphone / Smartphone/ Tablet device with 4G / LTE / 3G / HSDPA	519	48%	199	51%	169	48%	119	58%
Free public Wifi areas	163	15%	71	18%	63	18%	28	14%
Don't know	63	6%	14	4%	22	6%	19	9%
Other	25	2%	8	2%	15	4%	11	5%

Table 13: How did you communicate with your online tutor (e-tutor or Teaching Assistant)?

The fact that the Discussions technology was the one most used by students to communicate with their online tutors (e-tutors or Teaching Assistants) could, in the case of EUP1501 in any way, be attributed to a guideline given to students, that they should contact their Teaching Assistants via this technology.

# Table 14: Did you use myUNISA (the institutional learning management system) for this module?

Reflecting the fact that these courses are offered fully online, an average of 99% of all respondents used myUNISA for these courses. Correspondingly, no more than 2% (for ICT1512) of respondents did not use myUNISA while completing these courses.

# Table 15: How do you submit your assignments and / or activities for this module?

In a similar vein to what was indicated for Table 13, the lowest percentage (98.4%) for respondents submitting their assignments online (on myUNISA) for these courses was for EUP1501-S2-2014 and BPT1501, while all IAD3701 respondents submitted their assignments on myUNISA.

# Table 16: myUNISA down times had an impact on my studies

For the second semester of 2014, two-thirds of EUP1501 respondents agreed or strongly agreed that myUNISA down times had an impact on their studies - this combined percentage steadily declined to only 50% for the second semester of 2015, while these combined percentages for ICT1512 and IAD3701 were even lower! Almost three-quarters of BPT1501 respondents, however, agreed or strongly agreed with this statement ...

# Table 17: Would you prefer if this module was presented as a year module?

Similar to what was outlined by Garcia, Campbell, Dovi and Horstmann (2014), the learning period for these courses corresponded to a 15-week semester. Schofield, Erlinger and Dodds (2014, p. 341) reported that several respondents in their study "recommended extending the length of" their workshop to double the original duration, for example to "allow more time to experience" the learning units and curriculum. In response to the question "Would you prefer if this course was presented as a year course?", as opposed to being presented over a semester in the current format, around two-thirds of all EUP1501 respondents in these surveys of the courses discussed in this lecture replied negatively (No). As an instance of the kind of validations provided, and continuing with the ICT for Development (ICT4D) theme of this course, one student replied: "As far as I can tell, the content is more semester-like; a year course may require more content - not ICT4D only."

Respondents answers for the other three courses are more interesting ... Although the majority of respondents also replied 'No', this was the case for only 53% - a close 47% were therefore in favour of an extension. For IAD3701, there was a similar close call, but 54% were in favour of an extension. For ICT1512, close to a two-thirds majority were in favour of extension.

### DEMOGRAPHICS REGARDING e-SCHOOLS' COMMUNITY ENGAGEMENT RESPONDENTS

Table 18: Gender of e-Schools' Community Engagement Respondents

	Fe	male	ı	∕Iale
I	23	53.5%	20	46.5%

The spread with regard to gender fairly closely matches that obtained by Wilson-Strydom, Thomson and Hodgkinson-Williams (2005, p. 76), whose "survey sample was made up of 48.5% men and 51.5% women."

Table 19: These schools are located in ... areas

Ur	ban	Tow	nship	Rural		
12	28%	31	72%	0	0%	

Although Wilson-Strydom et al. (2005, p. 76) also reported that the majority of their "sample (43%) lived in township areas", almost three-quarters of respondents in the survey reported on in this lecture represented township areas. The percentage with regard to urban areas were almost the same as that obtained by Wilson-Strydom et al. (2005, p. 76) with regard to rural areas (26%); whereas the latter authors, however, had almost a third (31%) of respondents from urban areas, no respondents from rural areas were represented in the sample of the survey reported on in this lecture.

Table 20: These are ... schools

Pri	mary	Sec	ondary	Other		
33	77%	7	16%	თ	7%	

Of the sample reported on by Wilson-Strydom et al. (2005, p. 76), "59% were General Education and Training (GET) educators and 41% Further Education and Training (FET)" teachers. Comparably, more than three-quarters of the respondents of the survey reported on in this lecture were from primary schools and almost a fifth from secondary schools. Those respondents who indicated 'Other'

included a representative from the district, one from a special school and one from a combined school.

Table 21: Ages of e-Schools' Community Engagement Respondents

•		30 - 39 years		40 - 49 years		50 - 59 years		60 years and above	
2	5%	6	14%	21	49%	11	26%	3	7%

Just less than half of the respondents fell in the 40 - 49 years age category, followed by just over a quarter in the 50 - 59 years group. The 30 - 39 years and 60 "years and above categories accounted for" 14% and 7% of respondents respectively (Wilson-Strydom, Thomson, & Hodgkinson-Williams, 2005, p. 76).

Table 22: Number of years teaching experience

0 - 5 years		6 - 10 years		11 - 15 years		16 - 20 years		More than 20 years	
6	14%	5	12%	11	26%	5	12%	15	36%

More than a third of respondents had more than 20 years teaching experience. The percentages with regard to the number of years of teaching experience for the intervals "between 11-15 years teaching experience" and 0 - 5 years was roughly equal to those that had been obtained by Wilson-Strydom et al. (2005, p. 76), while the categories 6 - 10 years and 16 - 20 years were comparably evenly distributed.

Table 23: Number of computers at the schools

0		1	-10	1	1-20	More than 20				
2	5%	3	7%	5	12%	33	77%			

In what could arguably be considered to be illustrative of the situation for schools across Gauteng, more than three-quarters of schools represented by these respondents reported having more than twenty computers at their schools.

Table 24: Frequency of ICT-integrated lessons

More than o	once a month	About o	nce a month	Less tha	Never		
19 44%		7	16%	9	21%	8	19%

Findings for the respondents to the survey reported on in this lecture compared favourably to the findings reported by Wilson-Strydom et al. (2005, p. 77) with regard to ICT-integrated lessons taking place more than once a month (48.5%) and about once a month (13.5%). Although the percentage for "less than once per month" in the current study was considerably higher than the 9.2% reported by Wilson-Strydom et al. (2005), less respondents in the current study never used ICT-integrated lessons, compared to the more than a quarter (28.8%) reported by Wilson-Strydom et al. (2005).

The frequency of lessons integrating e-Learning seems to be fairly independent of the number of computers that a specific school has (see Table 25).

Table 25: Number of computers at the schools compared to the frequency of ICT-integrated lessons

	0 computers	1-10 computers	11-20 computers	21 or more computers
More than once per month	1 (13%)	0 (0%)	1 (13%)	6 (75%)
About once per month	0 (0%)	1 (11%)	1 (11%)	7 (78%)
Less than once per month	0 (0%)	1 (14%)	1 (14%)	5 (71%)
Never	1 (5%)	1 (5%)	2 (11%)	15 (79%)

Table 26: Regularity of computer laboratory use

More than	once a month	About o	nce a month	Less than	Never		
23 53%		3	7%	12	28%	5	12%

In line with the findings reported in Tables 23 and 24, more than half of all respondents reported that computer laboratories are being used more than once a month. Although more than a quarter of respondents indicated that computer laboratories are being used less than once a month, incidences where computer laboratories are being used about once a month or never are significantly lower.

The largest segment of respondents were teachers (more than a third), with principals and Heads of Department each making up almost a quarter each (see Table 27). Of the two persons who selected 'Other', one specified herself as an ICT-coordinator. Although the other person did not select 'Provincial official', she did indicate that she was from the district office.

Table 27: I am participating in my role as a / the

Principal	10	23%
Deputy Principal	5	12%
Head of Department	9	21%
Teacher	16	37%
Parent	0	0%
Member of the School Governing Body	0	0%
Community member	0	0%
Administrator	1	2%
Provincial official	0	0%
Other	2	5%

# With regard to these institutions having learners who utilise Information and Communication Technologies to enhance learning (Table 28):

- (1.1) Just less than three-quarters of respondents (71%) agreed or strongly agreed that learners at their institutions responded to ICT-integrated lessons by helping each other, compared to 91% of respondents in the study by Wilson-Strydom et al. (2005) agreeing with a similar statement.
- (1.2) Almost two-thirds of respondents agreed or strongly agreed that learners at their institutions responded to ICT-integrated lessons by producing work that is more creative, with two-fifths of them agreeing with this statement.
- (1.3) More than half of respondents (55%) agreed that learners at their institutions responded to ICT-integrated lessons by working together, compared to 88% of respondents in the study by Wilson-Strydom et al. (2005) agreeing with a similar statement.
- (1.4) In the study by Wilson-Strydom et al. (2005), 94% of respondents agreed with a statement relating to learners at their institutions responding to ICT-integrated lessons by becoming actively involved in the study reported here, almost three-quarters of respondents (74%) agreed or strongly agreed with this statement.
- (1.5) Respondents' opinions regarding learner activities at their institutions changing towards increasingly working on group projects show that almost two-thirds of them (60%) agreed or strongly agreed very close to the 61% of respondents in the study by Wilson-Strydom et al. (2005) agreeing with a similar statement.
- (1.6) Although the largest segment of respondents agreed that learner activities at their institutions were changing towards increasingly presenting their work to the class, two-fifths (40%) of respondents either disagreed or strongly disagreed with this statement.
- (1.7) In line with the progression with regard to e-learning indicated in the White Paper (Department of Education, 2004, p. 19), more than half of all respondents agreed that learners at these institutions are learning about Information and Communication Technologies (exploring what can be done with Information and Communication Technologies),
- (1.8) that learners at these institutions are learning with Information and Communication Technologies (using Information and Communication Technologies to supplement normal processes or resources), and
- (1.9) that learners at these institutions are learning through the use of Information and Communication Technologies (using Information and Communication Technologies to support new ways of teaching and learning).
- (1.10) With regard to achievement of the e-Education policy goal, respondents in this study were split exactly down the middle: 50% each either agreed and strongly agreed vs. disagreeing and strongly disagreeing that the institutions they represented had learners who are ICT capable.

Table 28: These institutions have learners who utilise ICTs to enhance learning

This institution has learners who utilise ICTs to enhance	Strong	y agree	Ag	ree	Dis	agree	Strongly	y disagree
learning:	ļ							
(1.1) Learners at this institution respond to ICT-integrated lessons by helping each other	8	19%	22	52%	10	24%	2	5%
(1.2) Learners at this institution respond to ICT-integrated lessons by producing work that is more creative	8	19%	17	40%	13	31%	4	10%
(1.3) Learners at this institution respond to ICT-integrated lessons by working together	6	14%	23	55%	11	26%	2	5%
(1.4) Learners at this institution respond to ICT-integrated lessons by becoming actively involved	10	24%	21	50%	11	26%	0	0%
(1.5) Learner activities at this institution are changing towards increasingly working on group projects	4	10%	20	50%	13	33%	3	8%
(1.6) Learner activities at this institution are changing towards increasingly presenting their work to the class	2	5%	21	55%	12	32%	3	8%
(1.7) Learners at this institution are learning about ICTs (exploring what can be done with ICTs)	6	16%	18	47%	13	34%	1	3%
(1.8) Learners at this institution are learning with ICTs (using ICTs to supplement normal processes or resources)	5	13%	18	45%	15	38%	2	5%
(1.9) Learners at this institution are learning through the use of ICTs (using ICTs to support new ways of teaching and learning)	5	13%	17	45%	14	37%	2	5%
(1.10) All learners are ICT capable (that is, use ICT confidently and creatively to help develop the skills and knowledge they need to achieve personal goals and to be full participants in the global community)	5	13%	14	37%	14	37%	5	13%

# With regard to these institutions having qualified and competent managers who use Information and Communication Technologies for planning, management and administration (see Table 29):

- (2.2) More than half of respondents agreed that every manager had the means to obtain a personal computer for personal use, administration and preparation of lessons,
- (2.5) institutional managers have access to in-service training on how to integrate Information and Communication Technologies in management and administration,
- (2.6) all institutional managers integrate Information and Communication Technologies in management and administration,
- (2.7) the DoE uses Information and Communication Technologies seamlessly in planning, management, communication and monitoring and evaluation and
- (2.8) provincial managers are trained in educational technology integration to offer support to institutions.

# For two items, regarding

- (2.1) on-going support to managers being provided at different levels of the system and
- (2.3) every manager having access to basic training in the use of e-Learning, the percentage of respondents who agreed vs. disagreed with each of these statements were exactly equal (see Table 29).
- (2.4) Finally, although a total of 46% of respondents agreed or strongly agreed with the item relating to a set of case studies and examples being available to managers on how to integrate Information and Communication Technologies in management, teaching and e-Learning, the largest segment of respondents disagreed with this statement (see Table 29).

# With regard to these institutions having qualified and competent teachers who use Information and Communication Technologies to enhance teaching and learning (see Table 30):

- (3.3) More than half of all respondents **agreed** that these institutions had a dedicated teacher to manage the facility and to champion the use of e-Learning in these institutions,
- (3.2) while almost two-thirds of respondents (64%) agreed or strongly agreed that every teacher has access to basic training in the use of e-Learning and
- (3.4) that teachers have access to in-service training on how to integrate Information and Communication Technologies into teaching and e-Learning (59%).
- (3.9) More than half of respondents **disagreed** that technology incentives for institutions and teachers to use e-Learning are installed through the "Most Improved Schools Award" program and other schemes,
- (3.6) that all teachers integrate Information and Communication Technologies into the curriculum, and
- (3.8) that all teachers are ICT capable.
- (3.1) Almost half of the respondents disagreed that every teacher has the means to obtain a personal computer for personal use, administration and preparation of lessons,
- (3.10) while just slightly less disagreed that teachers have access to ICT technical support training,
- (3.5) that all teachers are trained in basic ICT integration into teaching and learning, and
- (3.7) that a set of case studies and examples is available to teachers on how to integrate Information and Communication Technologies in management, teaching and learning.

Table 29: These institutions have qualified and competent managers who use Information and Communication Technologies for planning, management and administration

This institution has qualified and competent managers who use ICTs for planning, management and administration:	Strong	ly agree	Ag	ree	Disa	agree	Strongly disagree		
(2.1) On-going support to managers is provided at different levels of the system	8	20%	15	37%	15	37%	3	7%	
(2.2) Every manager has the means to obtain a personal computer for personal use, administration and preparation of lessons	7	17%	22	54%	10	24%	2	5%	
(2.3) Every manager has access to basic training in the use of ICTs	8	20%	16	39%	16	39%	1	2%	
(2.4) A set of case studies and examples is available to managers on how to integrate ICTs in management, teaching and learning	1	2%	18	44%	19	46%	3	7%	
(2.5) Institutional managers have access to in-service training on how to integrate ICTs in management and administration	5	12%	23	56%	11	27%	2	5%	
(2.6) All institutional managers integrate ICTs in management and administration	4	10%	22	55%	13	33%	1	3%	
(2.7) The department of education uses ICTs seamlessly in planning, management, communication and monitoring and evaluation.	5	13%	22	56%	9	23%	3	8%	
(2.8) Provincial managers are trained in ICT integration to offer support to institutions	3	8%	20	54%	13	35%	1	3%	

Table 30: These institutions have qualified and competent teachers who use Information and Communication Technologies to enhance teaching and learning

This institution has qualified and competent teachers who use ICTs to enhance teaching and learning:	Strong	ly agree	Ag	gree	Disa	agree	Strongly	/ disagree
(3.1) Every teacher has the means to obtain a personal computer for personal use, administration and preparation of lessons.	5	12%	12	29%	20	48%	5	12%
(3.2) Every teacher has access to basic training in the use of ICTs	6	15%	20	49%	11	27%	4	10%
(3.3) The institution has a dedicated teacher to manage the facility and to champion the use of ICTs in the institution	10	24%	24	57%	7	17%	1	2%
(3.4) Teachers have access to in-service training on how to integrate ICTs into teaching and learning	6	14%	19	45%	14	33%	3	7%
(3.5) All teachers are trained in basic ICT integration into teaching and learning	4	10%	16	38%	18	43%	4	10%
(3.6) All teachers integrate ICTs into the curriculum	3	7%	9	21%	24	57%	6	14%
(3.7) A set of case studies and examples is available to teachers on how to integrate ICTs in management, teaching and learning	4	10%	13	33%	17	43%	6	15%
(3.8) All teachers are ICT capable	2	5%	9	22%	24	59%	6	15%
(3.9) Technology incentives for institutions and teachers to use ICTs are installed through the "Most Improved Schools Award" programme and other schemes	1	3%	8	21%	21	55%	8	21%
(3.10) Teachers have access to ICT technical support training	1	3%	13	33%	17	44%	8	21%

# With regard to these institutions having access to ICT resources that support curriculum delivery (see Table 31):

- (4.8) More than half of all respondents **agreed** that these institutions are using educational content that was developed according to set national norms and standards, and
- (4.3) that these institutions have access to educational content on the Educational Portal "Thutong", while
- (4.4) exactly half of all respondents agreed that the Educational Portal "Thutong" provides access to resources in all learning areas in the GET phase and all subjects in the FET phase.
- (4.9) Just less than half of all respondents agreed that these institutions use educational software of high quality, while
- (4.1) slightly less agreed that these institutions have access to an updated database of evaluated content resources and is able to select content for their usage.
- (4.5) Two-thirds of all respondents **disagreed** that teachers are producing digital content of high quality and making it available to other teachers, while
- (4.2) the same number of respondents disagreed that these institutions have access to digital libraries.
- (4.6) Just more than half of all respondents disagreed that these institutions use the Educational Portal to communicate, collaborate and access content, while
- (4.10) just less than half of all respondents disagreed that the province is collaborating and pools ICT resources where appropriate.
- (4.7) Although the largest segment of respondents disagreed that these institutions use the Educational Portal for teaching and learning in an outcomes-based education fashion, only one less respondent agreed with this statement.

## With regard to these institutions having connections to ICT infrastructure (see Table 32):

- (5.10) More than half of all respondents **agreed** that these institutions use electronic means to communicate with provincial offices,
- (5.1) that these institutions have a computer and software for administrative purposes, and
- (5.3) that these institutions have legal software and use the software.
- (5.7) Just less than half of all respondents agreed that these institutions have access to a networked computer facility for teaching and learning that is safe, effective, designed to facilitate ICT integration into teaching and learning, and in working condition,
- (5.2) that these institutions have access to a networked computer facility for teaching and learning, and
- (5.4) that ICT facilities are safe.
- (5.5) Although just over two-fifths of respondents agreed that ICT facilities are being used effectively to facilitate ICT integration into teaching and learning, and
- (5.6) that ICT facilities are safe, effective, designed to facilitate ICT integration into teaching and learning, and in working condition, almost identical numbers of respondents disagreed with these two statements.
- (5.11) Almost two-thirds of respondents **disagreed** that these institutions have access to an e-Rate.
- (5.8) Although just more than two-fifths of respondents disagreed that these institutions are connected to the Educational Network, and
- (5.9) that networks are safe and information security is monitored, again almost identical numbers of respondents agreed with these two statements.

Table 31: These institutions have access to ICT resources that support curriculum delivery

This institution has access to	<u> </u>		_				a		
ICT resources that support curriculum delivery	Strong	ly agree	Ag	ree	Disa	agree	Strongly	/ disagree	
(4.1) The institution has access to an updated database of evaluated content resources and is able to select content for their usage	3	8%	17	44%	15	38%	4	10%	
(4.2) The institution has access to digital libraries	1	3%	4	10%	26	65%	9	23%	
(4.3) The institution has access to educational content on the Educational Portal "Thutong"	3	8%	21	53%	13	33%	3	8%	
(4.4) The Educational Portal "Thutong" provides access to resources in all learning areas in GET and all subjects in FET	7	18%	20	50%	10	25%	3	8%	
(4.5) Teachers are producing digital content of high quality and making it available to other teachers	2	5%	5	13%	26	67%	6	15%	
(4.6) The institution uses the Educational Portal to communicate, collaborate and access content	4	11%	9	24%	20	53%	5	13%	
(4.7) The institution uses the Educational Portal for teaching and learning in an outcomes-based education fashion	3	8%	15	38%	16	41%	5	13%	
(4.8) The institution is using educational content that was developed according to set national norms and standards	3	8%	22	58%	11	29%	2	5%	
(4.9) The institution uses educational software of high quality	3	8%	19	48%	17	43%	1	3%	
(4.10) The province is collaborating and pools ICT resources where appropriate	3	8%	14	38%	18	49%	2	5%	

Table 32: These institutions have connections to ICT infrastructure

This institution has							_	
connections to ICT	Strong	ly agree	Ag	ree	Disa	agree	Strongly	/ disagree
infrastructure								
(5.1) The institution has a computer and software for administrative purposes	12	29%	22	52%	8	19%	0	0%
(5.2) The institution has access to a networked computer facility for teaching and learning	3	7%	19	46%	16	39%	3	7%
(5.3) The institution has legal software and uses the software	9	22%	21	51%	9	22%	2	5%
(5.4) ICT facilities are safe	10	25%	18	45%	8	20%	4	10%
(5.5) ICT facilities are being used effectively to facilitate ICT integration into teaching and learning	5	12%	17	41%	16	39%	3	7%
(5.6) ICT facilities are safe, effective, designed to facilitate ICT integration into teaching and learning, and in working condition	5	12%	17	41%	16	39%	3	7%
(5.7) The institution has access to a networked computer facility for teaching and learning that is safe, effective, designed to facilitate ICT integration into teaching and learning, and in working condition	3	7%	20	49%	14	34%	4	10%
(5.8) The institution is connected to the Educational Network	2	5%	17	41%	18	44%	4	10%
(5.9) Networks are safe and information security is monitored	4	10%	16	40%	17	43%	3	8%
(5.10) This institution uses electronic means to communicate with provincial offices	7	17%	22	54%	12	29%	0	0%
(5.11) This institution has access to an e-Rate	2	6%	8	24%	21	62%	3	9%

Table 33: These institutions connect with their communities

	Strongly agree		Ag	gree	Disa	agree	Strongly	/ disagree
(6.1) Communities have access to computer facilities and services after hours	3	8%	3	8%	20	51%	13	33%
(6.2) Community involvement supports this institution to sustain ICT facilities	1	3%	9	25%	17	47%	9	25%
(6.3) Communities are integrally involved in these institutions	1	3%	7	19%	19	53%	9	25%
(6.4) Local Small, Medium and Micro Enterprises (SMMEs) have been developed and trained to provide technical support to this institution	1	2%	3	7%	25	61%	12	29%
(6.5) SMMEs provide technical support to institutions	0	0%	7	19%	21	57%	9	24%
(6.6) This institution serves as a venue for business advisory services and training for community-based small computer and repair businesses	1	2%	1	2%	26	63%	13	32%

With regard to these institutions connecting with their communities, the majority of respondents disagreed with each of the statements:

- (6.6) Almost two-thirds of all respondents disagreed that these institutions serve as a venue for business advisory services and training for community-based small computer and repair businesses,
- (6.4) that local Small, Medium and Micro Enterprises (SMMEs) have been developed and trained to provide technical support to these institutions, and
- (6.5) that SMMEs provide technical support to the institutions.
- (6.3) More than half of all respondents disagreed that communities are integrally involved in these institutions and
- (6.1) that communities have access to computer facilities and services after hours.
- (6.2) Finally, just less than half of all respondents indicated that community involvement supports these institutions to sustain ICT facilities.

### **CONCLUSIONS**

Similar to the opinion expressed by Van Rooyen (2010, p. 54), the author is convinced that the results as reported in this lecture "may assist in planning more effective" teaching and meaningful e-Learning "interventions, which will have a positive impact on" especially the assessment experiences of such students in an open and distance learning context.

I agree with Brown, Kölling, McCall and Utting (2014, p. 225) that there "remain many technical challenges in the automated analysis of" large-scale data such as findings from the numbers of students involved in these courses. "The scale of the data does not make the analysis impossible, but it does prevent any manual intervention; any analysis must typically be completely automatic." Finally, as also suggested by the latter authors, more detailed demographic information about the respondents in the surveys such as the one discussed in this lecture, and these courses in general, may also be collected.

These courses have already started serving "as an opportunity to develop and test" educational technologies, which will provide, as described by Warren, Rixner, Greiner and Wong (2014, p. 670) and discussed in this lecture, e-learning students with enhanced, valuable learning experiences. Numerous opportunities, however, for further work in related fields are evident.

Similar to the summary of the panel discussion by Sahami, Guzdial, Martin and Parlante (2013, p. 457), relating to perspectives on massive open online education, this lecture discussed issues "and lessons learned from preparing and teaching" online courses to more than 100 000 students, including the challenges involved in delivering such courses. This lecture also similarly provided guidance to "those who might be considering doing the same".

"A first look at the data provided by" these courses suggest "that the course design choices... had a positive effect on student motivation and" has led to meaningful e-Learning (Van Hentenryck & Coffrin, 2014, p. 682). Similar to some of the conclusions that the latter authors had come to, and as was described by Warren et al. (2014, p. 670), students' views of these courses were extremely positive: almost two-thirds of the students in the surveys reported on in this lecture agreed or strongly agreed that their overall experience of the course was positive, with up to 34% of them strongly agreeing (See Table 10). "Students actively engaged with each other to learn and teach themselves", as advised by Laws (2013).

With regard to the e-Education policy goal, respondents in the survey reported on in this lecture were split exactly down the middle: 50% each either agreed and strongly agreed vs. disagreeing and strongly disagreeing that the institutions they represented had learners who are ICT capable. More than half of respondents agreed with five out of eight statements regarding these institutions having managers that were able to use Information and Communication Technologies for management purposes. Most of them, however, disagreed that they had qualified and competent teachers who use ICTs to enhance teaching and e-Learning, while, unfortunately, all of them disagreed with all of the statements related to these e-schools' community engagement ...

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Table 1: Students' countries of residence

Countries	EUP1501	-S1-2014	EUP1501	-S2-2014	EUP1501	-S1-2015	EUP1501	L-S2-2015	BPT1501	-S1-2015	ICT1512-	S1-2014	IAD3701	L-S2-2014
South Africa	1962	95.7%	1506	95.7%	513	95%	411	91%	282	97%	105	98%	16	100%
Zimbabwe	32	1.56%	26	1.65%	4	0.7%	16	3.5%	2	0.7%				
Namibia	14	0.68%	6	0.38%	3	0.6%	6	1.3%			1	0.9%		
Botswana	8	0.39%	9	0.57%	5	0.9%								
Swaziland	3	0.15%	8	0.51%	3	0.6%	2	0.4%						
Zambia	3	0.15%	3	0.2%	1	0.2%			2	0.7%				
Angola	3	0.15%	2	0.1%	2	0.4%	1	0.2%						
China	3	0.15%												
United Kingdom	3	0.15%					1	0.2%						
Malawi	2	0.10%	3	0.19%										
Lesotho	2	0.10%	2	0.13%	2	0.4%	1	0.2%						
United Arab Emirates	2	0.10%	1	0.06%	2	0.4%			1	0.34%				
Mauritius	2	0.10%												
Nigeria	2	0.10%												
Kenya	1	0.05%	2	0.1%	1	0.2%			2	0.7%				
Bahrain	1	0.05%												
Cyprus	1	0.05%												
Niger	1	0.05%												
Seychelles	1	0.05%												
Singapore	1	0.05%												
South Sudan	1	0.05%												
Tanzania	1	0.05%												
Ethiopia			2	0.1%			1	0.2%						
Canada			1	0.1%										
Germany			1	0.1%										
Saudi Arabia			1				1	0.2%						
Brazil					2	0.4%				,				
Democratic Republic of the	Congo				1	0.2%								
Mozambique					1	0.2%								
Sweden					1	0.2%								
South Korea											1	0.9%		
Australia									1	0.34%				
	2049		1573		541		451		290		107		16	
Registered @ survey time	12721		5458		12994		5049		9182		801		57	
	16%		29%		4.2%		8.9%		3.2%		13%		28%	
Number in data file	1833		1755		566		521		302		155		19	
	14%		32%		4.4%		10.3%		3.3%		19.4%		33.3%	

Table 2: I studied full/part-time

		EUP1501	-S1-2014	EUP1501	-S2-2014	EUP1501	-S1-2015	EUP1501	-S2-2015	BPT1501	-S1-2015	ICT1512-	-S1-2014	IAD3701	L-S2-2014
Full-1	time	373	18%	247	17%	80	16%	97	22%	81	29%	27	25%	0	0%
Part-t	time	1673	82%	1230	83%	436	84%	354	78%	197	71%	79	75%	15	100%

Table 3: I am repeating the module

	EUP1501-S1-2014		EUP1501-S1-2014 EUP1501-S2-2014		EUP1501-S1-2015		EUP1501-S2-2015		BPT1501-S1-2015		ICT1512-	S1-2014	IAD3701-S2-2014	
Yes	618	30%	334	23%	133	26%	79	18%	26	9%	34	32%	2	13%
No	1428	70%	1143	77%	383	74%	372	82%	252	91%	72	68%	13	87%

Table 4: My overall experience of the module was positive

	EUP1501	-S1-2014	EUP1501	L-S2-2014	EUP1501	-S1-2015	EUP1501	L-S2-2015	BPT1501	-S1-2015	ICT1512-	·S1-2014	IAD3701	-S2-2014
Strongly Disagree	395	20%	230	20%	84	20%	61	17%	10	5%	11	11%	0	0%
Disagree	264	13%	126	11%	44	11%	44	12%	8	4%	12	12%	3	21%
Neither Agree nor Disagree	249	12%	140	12%	38	9%	42	12%	22	11%	13	13%	2	14%
Agree	795	39%	459	40%	189	46%	139	38%	97	46%	52	51%	7	50%
Strongly Agree	315	16%	187	16.4%	60	14%	78	21%	72	34%	14	14%	2	14%

Table 5: Would you recommend this module to other students?

_		EUP1501-S1-2014		EUP1501-S1-2014 EUP1501-S2-2014		EUP1501-S1-2015		EUP1501-S2-2015		BPT1501-S1-2015		ICT1512-	S1-2014	IAD3701-S2-2014	
	Yes	1363	67%	782	68%	303	72%	264	72%	186	87%	83	<b>78</b> %	11	<b>79</b> %
	No	682	33%	372	32%	115	28%	104	28%	28	13%	23	22%	3	21%

Table 13: How did you communicate with your online tutor (e-tutor or Teaching Assistant)?

	EUP1501	-S1-2014	EUP1501	L-S2-2014	EUP1502	1-S1-2015	EUP1501	-S2-2015	BPT1501	L-S1-2015	ICT151	2-S1-2014	IAD370	1-S2-2014
Discussion Forum (myUnisa)	1173	72%	747	52%	308	61%	253	57%	169	62%	42	61%	7	64%
Email	289	18%	224	16%	83	16%	59	13%	91	33%	19	28%	6	55%
Never tried to contact my Teaching Assistant	243	15%	422	29%	131	26%	129	29%	38	14%	21	30%		0%
Could never get hold of my Teaching Assistant even though I tried	148	9%	172	12%	32	6%	49	11%	21	8%	2	3%		0%
Telephone	72	4%	53	4%	11	2%	16	4%	7	3%	1	1%	2	18%
Online Meetings (Big Blue Button, myUnisa)	52	3%	36	3%	9	2%	10	2%	7	3%	2	3%		0%
Other	34	2%	36	3%	10	2%	7	2%	1	0.4%		0%		0%
Social media (e.g. Facebook, Twitter, etc.)	20	1%	14	1%	1	0.2%	5	1%	3	1%	2	3%		0%
Personal visits	10	1%	21	1%	4	1%	7	2%	5	2%		0%		0%
Letters/ Faxes	4	0.2%	1	0.1%		0%	3	1%		0%		0%		0%

Table 14: Did you use myUNISA (the institutional learning management system) for this module?

_		EUP1501-S1-2014		EUP1501-S1-2014 EUP1501-S2-2014		EUP1501-S1-2015		EUP1501-S2-2015		BPT1501-S1-2015		ICT1512	-S1-2014	IAD3701-S2-2014		
	Yes	2022	98.8%	1383	98.6%	482	99.2%	430	98.6%	264	98.9%	104	98.1%	14	100%	
	No	24	1.2%	20	1.4%	4	0.8%	6	1.4%	3	1.1%	2	1.9%	0	0%	

Table 15: How do you submit your assignments and / or activities for this module?

	EUP15	EUP1501-S1-2014		EUP1501-S1-2014 EUP1501-S2-2014		EUP150	EUP1501-S1-2015		EUP1501-S2-2015		BPT1501-S1-2015		-S1-2014	IAD3701-S2-2014	
Pape	er 11	0.7%	15	1.6%	3	0.9%	4	1.3%	3	1.6%	1	1.2%	0	0%	
Onlin	e 1583	99.3%	908	98.4%	338	99.1%	304	98.7%	189	98.4%	85	98.8%	14	100%	

Table 16: myUNISA down times had an impact on my studies

	EUP1501	-S1-2014	EUP1501	-S2-2014	EUP1501	-S1-2015	EUP1501	L-S2-2015	BPT1501	-S1-2015	ICT1512	-S1-2014	IAD3701	L-S2-2014
Strongly Disagree	159	8%	123	9%	66	14%	39	10%	18	4%	10	10%	1	7%
Disagree	256	13%	256	20%	96	21%	86	21%	64	15%	17	17%	4	29%
Neither Agree nor Disagree	232	12%	223	17%	63	14%	76	19%	39	9%	24	24%	3	21%
Agree	645	33%	402	31%	136	30%	103	25%	68	15%	29	29%	2	14%
Strongly Agree	689	35%	296	23%	98	21%	100	25%	250	57%	20	20%	4	29%

Table 17: Would you prefer if this module was presented as a year module?

	EUP1501	1501-S1-2014 EUP1501-S2-2014		EUP1501-S1-2015		EUP1501-S2-2015		BPT1501-S1-2015		ICT1512	-S1-2014	IAD3701-S2-2014		
Yes	744	37%	461	41%	170	42%	141	39%	97	47%	64	63%	7	54%
No	1261	63%	670	59%	235	58%	217	61%	110	53%	38	37%	6	46%