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E-learning Framework for Saudi Universities

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Outline

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- E-learning in Saudi higher education
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Why this topic:

“ E-learning Framework for Saudi Universities”

The emergence of ICT in teaching and learning

- has brought **significant changes** in the educational settings of students and teachers.

Universities in many countries have started

- to offer E-learning in their curricula and implemented it in their practices.

Saudi Arabia has made

- considerable improvements in order to integrate E-learning in its educational system.

Being a former lecturer in one of the Saudi Universities

- has motivated me to improve the process of incorporating E-learning in higher education.

There is a need to improve the understanding of

- how to deal with the new technology (i.e. Web 2.0).

How to meet the staff and student requirements

- for teaching and learning.

Background of Saudi Higher Education

Establishment in 1975 /Ministry of Education .



The education system in the KSA



has developed to ensure that education becomes more efficient, meets the country's religious, economic and social needs, and eliminates illiteracy among the Saudi youth.



The KSA is one of the countries in



the world spending the largest amount on education according to the 2014 National Budget.



The education sector accounts for

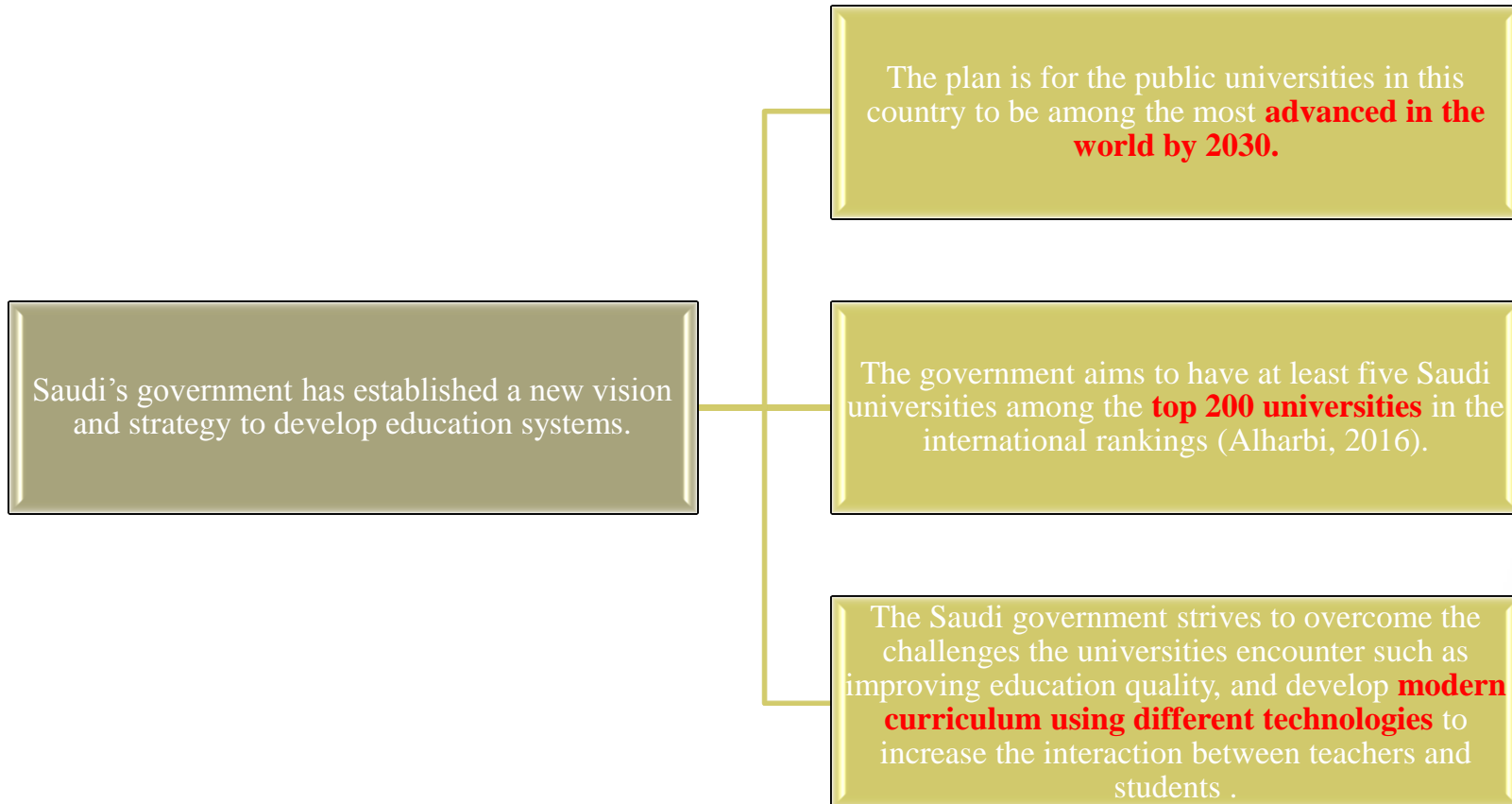


25% of the total expenditure in the national budget and is considered the highest in the world (Unnisa 2014).



Background of Saudi Higher Education

Cont.....



E-learning in Saudi higher education Cont.....

The number of Saudi public universities

- has now increased to twenty-six.

A National Centre of E-learning & Distance Learning

- was established in 2008 in Saudi Arabia (SA) to improve and support the growth of E-learning in Saudi universities.

More than 60,000 students are still

- unable to study in the Saudi public universities because they are already filled to capacity (Alharbi 2016).

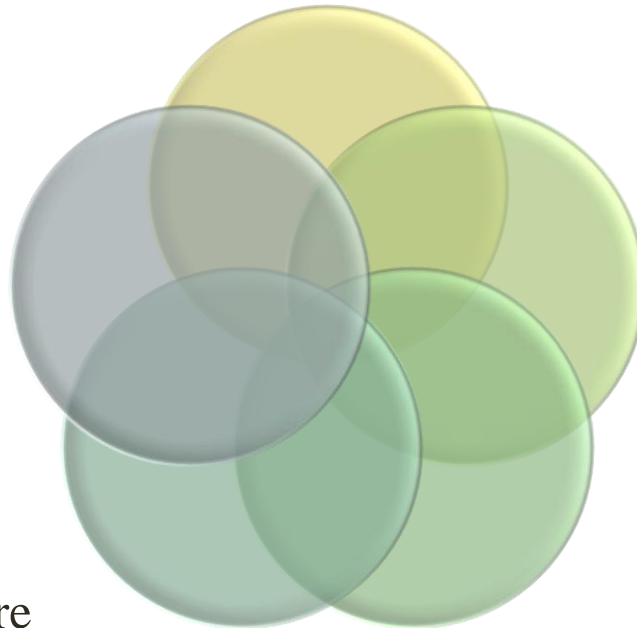
E-learning success is affected by various factors:

- a- student's attitude toward E-learning.
- b- students' behavioural intention about using E-learning.

Challenges of Saudi higher education

Poor understanding
of dealing with the
new operation.

KSA has a
different culture.



Increase the
number of
students and the
limited number of
places available.

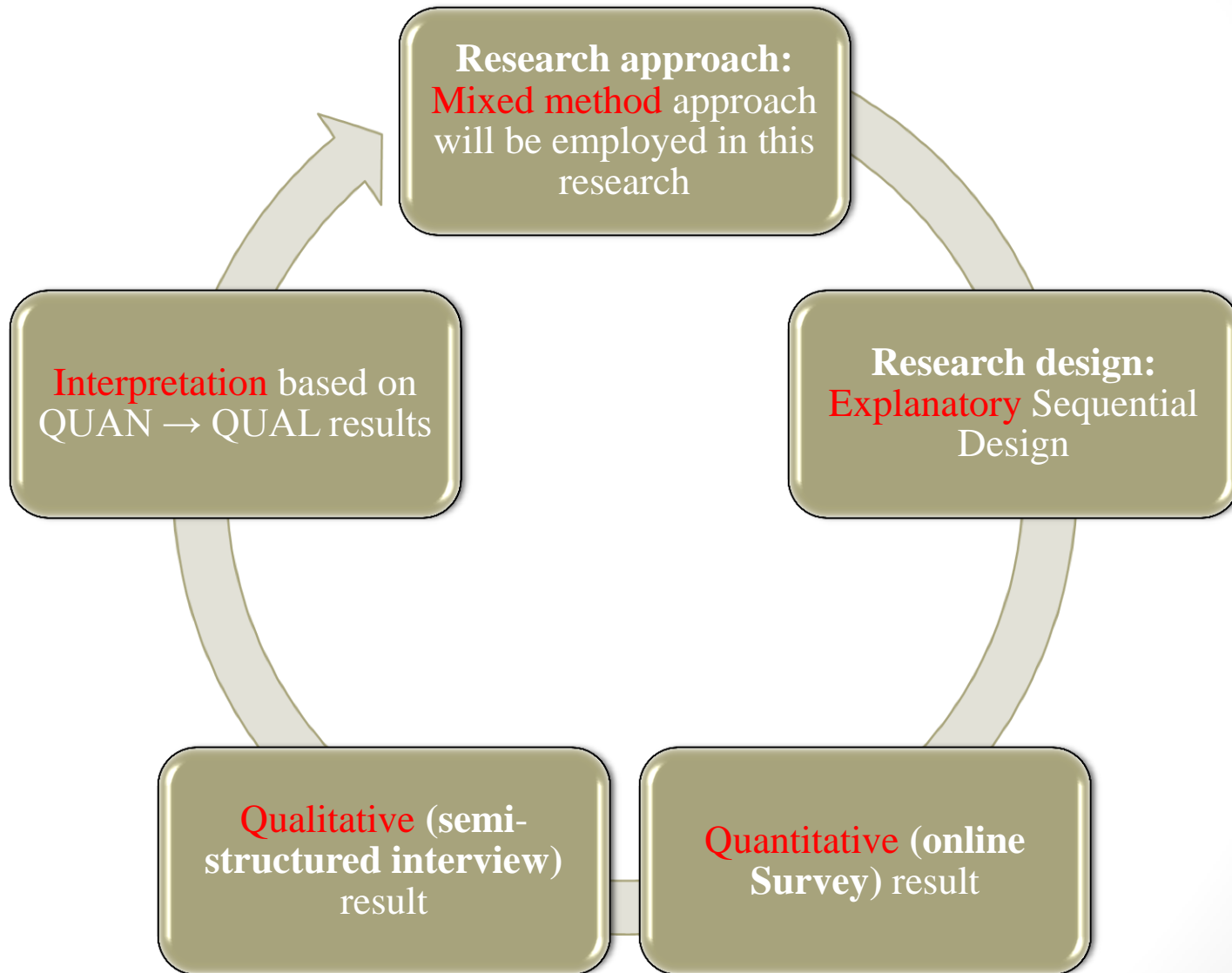
ICT infrastructure

Lectures and
lesson times are
short in certain
subjects.

Research objectives

- To develop a detailed, structured E-learning roadmap by stakeholders in Saudi universities as well as those in developing countries, especially the GCC countries.
- To determine the factors that will ensure the effectiveness of E-learning usage in the Saudi higher education framework.
- To investigate the attitudes and opinions of academics which will encourage to use E-learning for higher education in the KSA.

Research Methods:



Quantitative (online survey)

To identify the

- factors for the proposed framework.

To assess the

- effects of Technological Pedagogical Content Knowledge (TPACK), ICT factors, teaching principles, learning attributes, and personal factors on students' and academics' learning outcomes when E-learning technology is used for teaching and learning compared with the traditional method.

An online survey

- via **Qualtrics**. (students, academics).

A five-point Likert scale

- will be applied to measure the extent to which subjects agree or disagree with statements.

Qualitative (semi-structured interview)

Techniques:

- **Semi-structured, face-to face-interview** sessions or use other technological applications such as **Skype** .

To **explore the quantitative results**

- from the survey in more depth to gain more insights, reasons, deeper understanding, and explanation of **these constructed factors**.

Research Methods: Sample

University	Classification	Number of academics and students
King Abdulaziz University	Government	165081
Umma Al-Qura University	Government	101011
Taif University	Government	64909
Total		331001

3 universities will form the sample of this study.

Factors of selecting these universities:

*They are located in **same geographical region**.*

They cater to a **large number of students**.

They offer **multiple faculty options** including medicine, engineering, and science, among others.

Among Saudi universities, their medicine, science, and engineering programs are **highly regarded** for both male and female students.

They have introduced a **learning management system (LMS)**, using either Blackboard or Moodle as platforms

Sample Size :



Quantitative online survey:

- Based on the numbers that were provided, the valid study sample number is **384 respondents** for the **pilot and main surveys**.

Determine Sample Size

Confidence Level: 95% 99%

Confidence Interval:

Population:

Sample size needed:

Sample Size Calculator Source: ("Creative Research Systems", 2012)

Qualitative Interviewing:

- determined sample size of semi-structured interviews in this study between **6 to 10 participants** (Marshall et al. 2013; Creswell and Poth 2017; Yin 2013).

Data analysis

Quantitative online survey

IBM **SPSS** Statistics (version 24)

Exploratory factor analysis (EFA)
for statistical testing.

Qualitative Interviewing

Nvivo software (version 11)

A **thematic analysis** technique will be employed in order to **develop themes** based on analysing and detecting data and also grouping the information according to identified patterns.

Research outcomes

The research reviews the

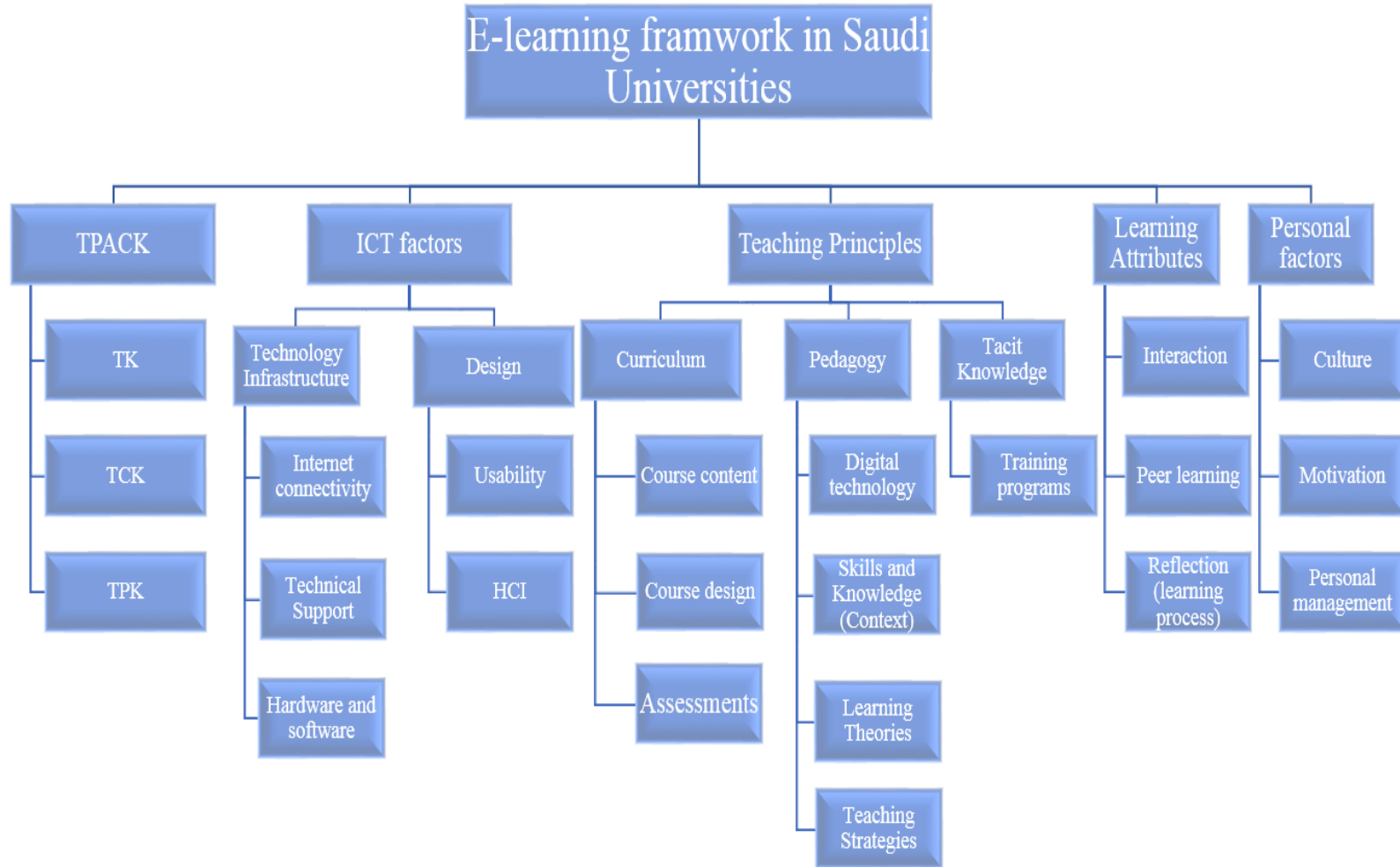
- current literature relating to E-learning in general and in the KSA in particular.
- Examined the following topics which are related to my study
 - **Technological Pedagogical Content Knowledge (TPACK)**
 - **ICT factors**
 - **Teaching Principles**
 - **Learning Attributes**
 - **Personal Factors**

Research outcomes

- To the best of this researcher's knowledge, none of the studies reviewed thus far has addressed all of these dimensions comprehensively.

Authors & Year	TPACK			ICT Factors				Teaching Principles							Learning Attributes			Personal factors			
	TK	TCK	TPK	Technology Infrastructure		Design	Curriculum		Pedagogy					Tacit Knowledge	Interaction	Peer learning	Reflection	Culture	Awareness	Personal management	
				Internet connectivity	Technology Support		Hardware and Software	Course Sequencing	Assessments	Digital Pedagogy (context)	Skills and Knowledge (context)	Technopedagogical education competency	Learning Theories								Teaching Strategies
				Usability	HCI																
Training programs	Sharing knowledge																				
Mishra and Koehler (2006), Niess (2005), Hofer and Harris (2012)	✓	✓	✓							✓				✓	✓	✓					
Habowski and Mouza (2014)			✓								✓										
Alebaikan and Troudi (2010)		✓										✓									
Chai, Koh and Tsai (2010)			✓						✓												
Tondeur et al. (2017)		✓	✓																		
Al-Adwan and Smedley (2012), Kabilan and Rajab (2010)				✓	✓	✓					✓						✓	✓			
ALTAMEEM (2013)				✓	✓					✓				✓							
Mokhtar, Alias, and Rahman (2007)	✓				✓																

E-learning framework for Saudi Universities



Conclusion

- The main purpose of this research is to develop the awareness of academics and students regarding the use of E-learning technology in Saudi higher education.
- This research is expected to have a practical implication. To the best of the researcher's knowledge, none of the previous literature yet has examined all provided factors in the proposed framework inclusively.
- Centred on the university level, it is anticipated that the findings will enlighten stakeholders about the different uses of E-learning, and how these can be encouraged to develop learning and teaching at the university itself, and in the KSA higher education sector in general.

Thank you for listening

Feel free to email any of your feedback or question