eLearning 4.0

Holistic Model for Saudi Arabia Higher Education

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Outline

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Background

eLearning is defined as the education that the student obtains **electronically** through a **computer network.**

(Zhang et al. 2004).

eLearning can be conducted through direct internet connection at a **specific time** or at a **time chosen by the students** and via **any device** that suits them.

(Romiszowski 2004).

Background

eLearning Generations

	eLearning 1.0	eLearning 2.0	eLearning 3.0	eLearning 4.0
TECHNOLOGY	Create and administer educational content to provide easy and convenient access to learners.	Web 2.0 technologies provide the capability for user-generated content. It also enables interactions among learners and educators across institutions.	*Web 3.0 technologies enable the "read/write/collaborate" function. *Personally, distributed learning environments. *A portfolio of software applications. *Intelligent agents conduct collaborative intelligence-filtering.	*Fully anticipates learners needs *Learning material and data will real-time material from real-world events *Formatted to learning style and comprehension regardless of original format
LEARNING ACTIVITIES	Traditional, essays, assignments, tests, some group work within classroom.	Traditional assignment approaches transferred to more open technologies; increasing collaboration in learning activities; still largely confined to institutional and classroom boundaries	*Open, flexible learning activities for student creativity; *Social networking outside traditional boundaries of discipline, institution, nation.	*Learning activities will have the potential to immediately impact current global issues *Business and industry will develop more interest in educational learning outcomes for operational intelligence *Seamless integration of learning and real-world
INSTITUTIONAL ARRANGEMENTS	Campus-based with fixed boundaries between institutions; teaching, assessment and accreditation provided by one institution	Increasing collaboration between universities across international lines; still one-to-one affiliation between students and universities.	*Loose institutional affiliations and relations *Entry of new institutions that provide higher education services *Regional and institutional boundaries soften.	*Global and International orientation -Institutions come to students *No limitation on culture, country or location *Expertise of instructional staff will be multi-cultural and multi-geographic

*Adapted from: "From Web 3.0 to eLearning 4.0: Leveraging Artificial Intelligence in Healthcare Education" by: Joy Wu

Background

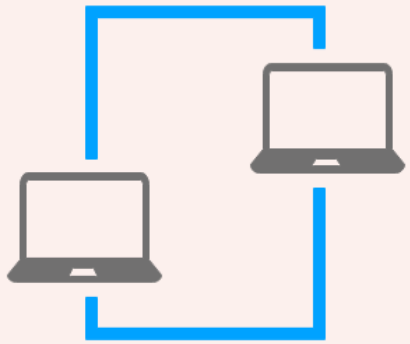
Web Generations

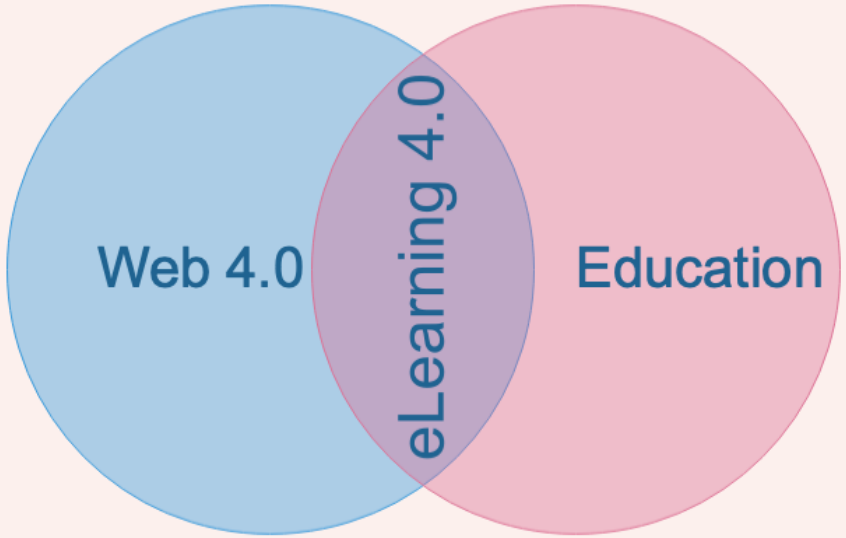
Web 1.0*	Web 2.0	Web 3.0	Web 4.0
The Hypertext Web	The Social Web	The Semantic Web	The Symbiotic Web
Read Only	Read and Write Web	Executable Web	Read Write – Concurrency Web
Echo System	Participation and Interaction	Understanding self	Global transparency, governance, distribution, participation, collaboration into key communities such as industry, political, social and other communities
Companies Publish Content	People Publish Content	People build application though which people interact and publish content.	Machines would be clever on reading the contents of the web, and react in the form of executing and deciding what to execute first to load the websites fast with superior quality and performance and build more commanding interfaces
Buddy List, Address Book	Online Social networks	Semantic Social Information	Massive web of highly intelligent interactions

*Adapted from: “World Wide Web and Its Journey from Web 1.0 to Web 4.0”

The concept of Web 4.0 is connecting intelligence which has transferred to Learning 4.0.

(Zierer 2017 as quoted byKlopp and Abke 2018)





eLearning 4.0 is the latest technology in digital transformation and innovation in the education sector along with other fields.

(Keser and Semerci 2019)

Background

eLearning in Saudi Arabia Higher Education

Public universities in Saudi Arabia → have a policy for having a **deanship** for eLearning and distance education.

Aim → convert traditional courses into those that can be offered through eLearning.

Through → providing support to users to ensure the quality of the education.

National Centre for E-learning and Distance Education → 2007

Goal → To ensure the quality of the materials provided through e-learning and distance education, to support for research, and to supervise projects related to this type of education.

Research Questions and Objectives

1

What are the essential factors that are required for developing a holistic eLearning 4.0 model for Saudi Arabia?

To identify, the essential factors that are required for developing a holistic eLearning 4.0 model for Saudi Arabia

2

What are the perceptions and attitudes of stakeholders toward a holistic eLearning 4.0 model for Saudi Arabia higher education?

To explore the perceptions and attitudes of stakeholders regarding a holistic eLearning 4.0 model for Saudi Arabia higher education

3

What are the Smart Technology 4.0 adoption and design factors required to develop a holistic eLearning 4.0 model for Saudi Arabia?

To examine Smart Technology 4.0 adoption and the design factors required to develop a holistic eLearning 4.0 model for Saudi Arabia

Research Initial Holistic Model

The Importance of Research

- **eLearning 4.0** is a new term associated with other terms like Education 4.0, Pedagogical 4.0, Web 4.0, and Industry 4.0.

- **No paper** suggest a holistic eLearning 4.0 model for **Saudi Arabia higher education.**

To provide **eLearning 4.0 model**, the research suggested new factor that related particularly to eLearning 4.0 namely "**Smart Technology 4.0 Adoption and Design**".

- **Saudi Arabia** aims to keep pace with **modern technologies** that help students develop their scientific outputs and practical skills during their educational journey to achieve the goals of **2030 Vision.**

- **This vision aims**, through the educational and academic system, to obtain qualified graduates who can contribute to and help develop a prosperous economy for the country.

Research Significance

Theoretical Significance

- Academic and theoretical contributions will make to the **existing literature** pertaining to **eLearning.**

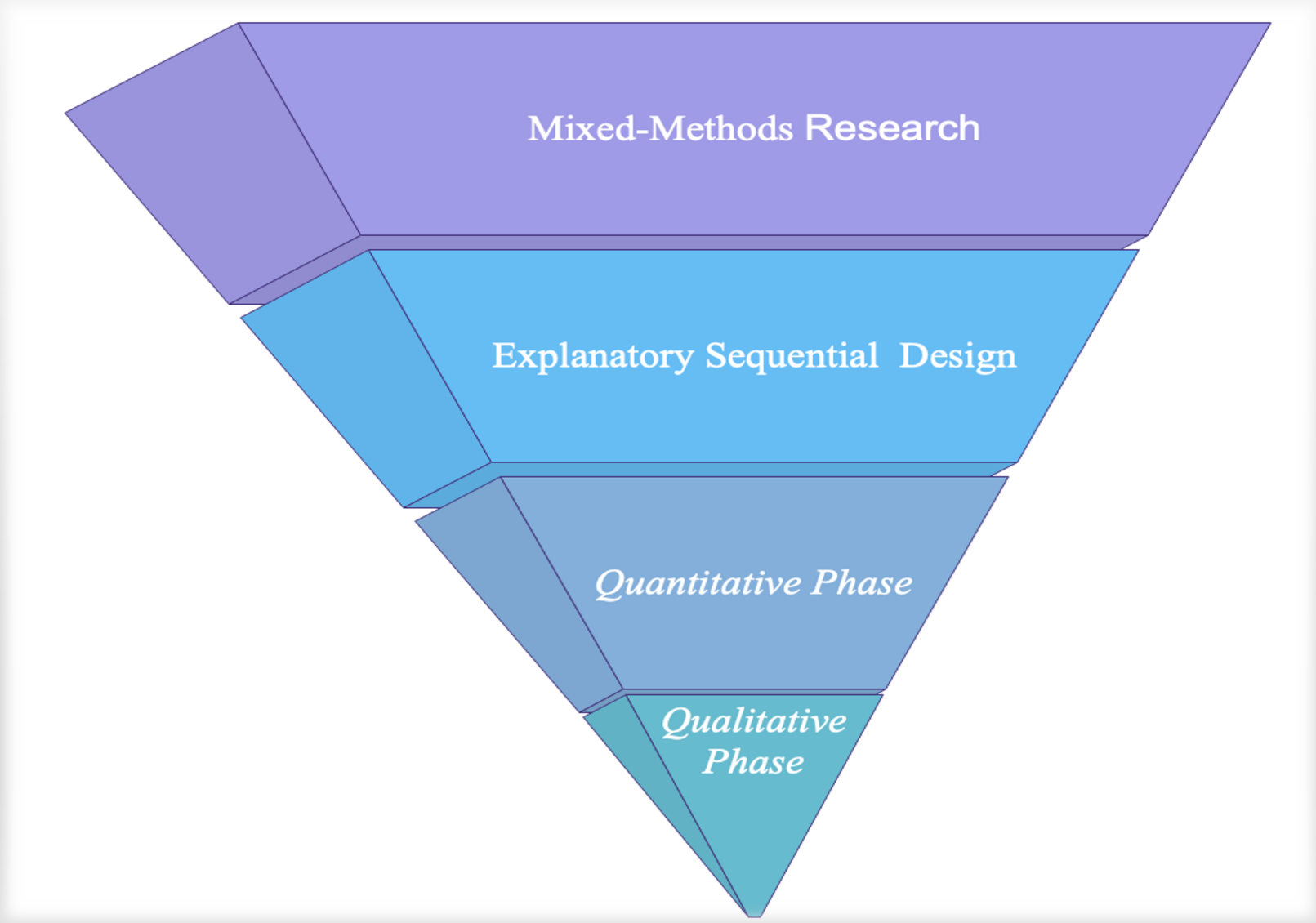
- By providing a summary of the important factors required for the successful implementation of eLearning 4.0 in **Saudi Arabia**.

- The major beneficiaries of this research are the **stakeholders in the higher education sector in Saudi Arabia.**

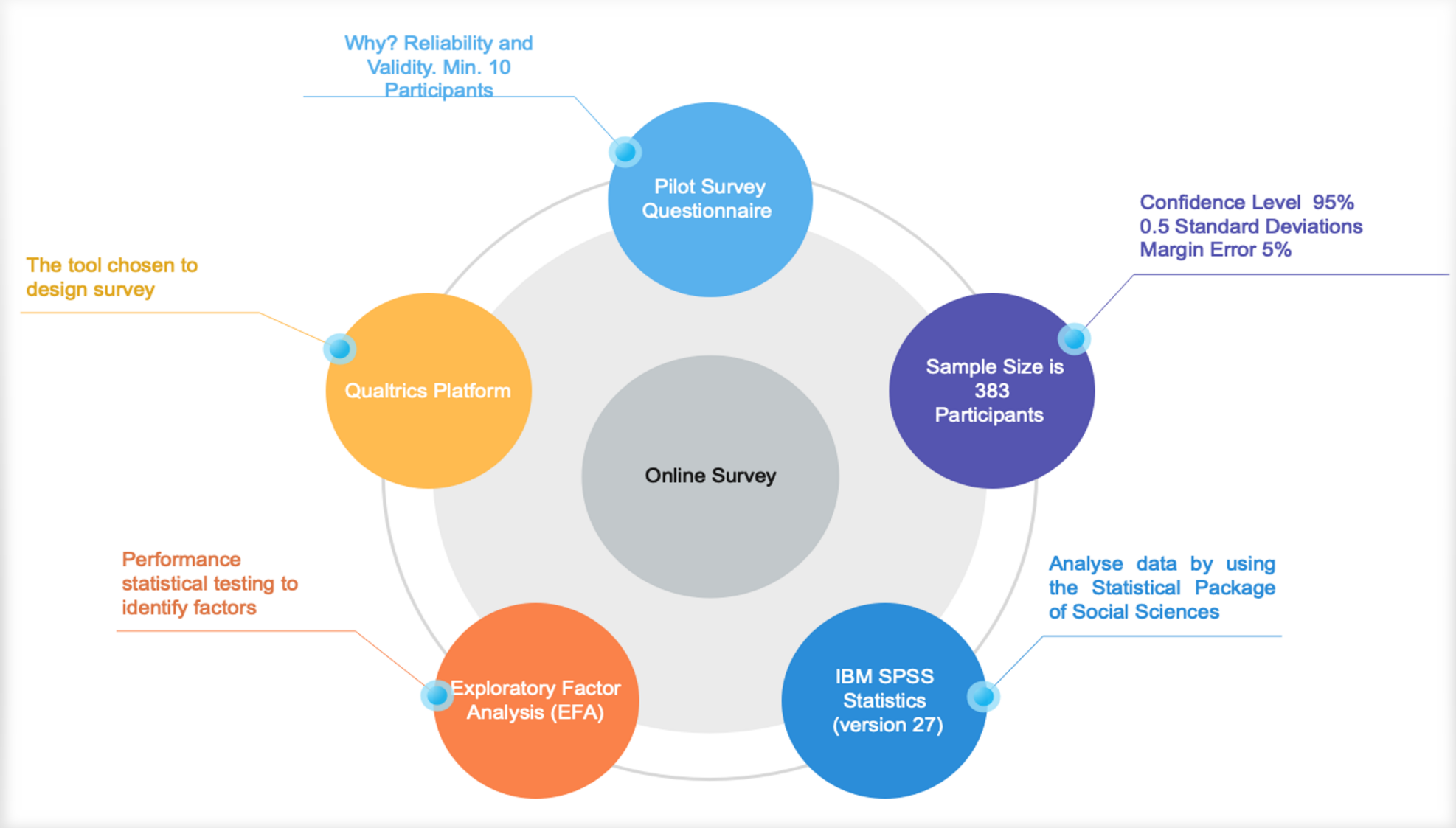
Practical Significance

- Implementing **strategies** related to the application of eLearning 4.0.
- A model is needed **to avoid** the shortcomings, problems, and defects that occurred in Saudi Arabia during the implementation of **eLearning 3.0** in the education sector.

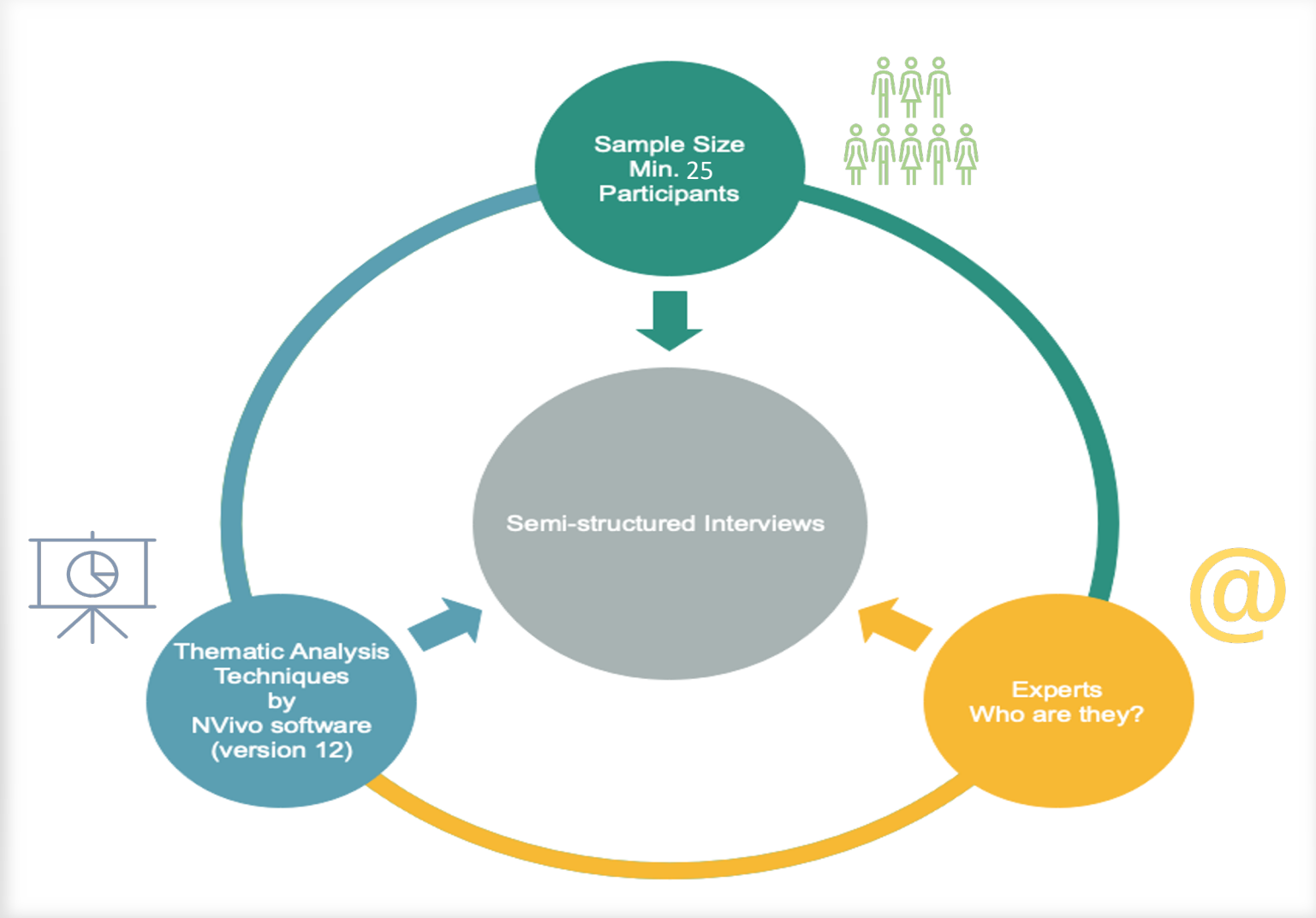
Research Methodology (Future Phases)



Quantitative Phase



Qualitative Phase



Thank You

Questions & Answers

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