**TOPIC MOTIVATION**

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**Title of Topic:** Investigating the impact of Integration of Technology Innovations into a Technical and Vocational Education and Training (TVET) Institution for Instructional use: A Concerns Based Perspective

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**Title of the Research/Topic**  Investigating the impact of Integration of Technology Innovations into a Technical and Vocational Education and Training (TVET) Institution for Instructional use: A Concerns Based Perspective.

**Brief details/motivation for the topic.**

The study might help improve people’s lives should the product of the study encourage investment in the adoption of technology in the TVET institution. This is as it is stated that introducing technology to TVET institutions might allow students the opportunity to learn new skills, to have skills that are better aligned to those desired by employers (Mamamelela, 2002).

The first problem is that there is little research about the subject ‘adoption of technology in TVET colleges’ and the aim of the research is to contribute to this neglected area of research.

As stated by Muhammad & Shu'aibu & Yahaya & Yasin (2011) the introduction of ICT to TVET institutions and its significance is not getting enough attention from research communities. Research within this space lacks besides research being done in other areas of education, it needs further exploration to show the need and significance of ICT integration to TVET institutions.

Bharuthram & Kies (2012) says that in South Africa most students come from disadvantaged backgrounds with no exposure to ICT. These students rely on higher education institutions to expose them to IS. This is the reason why TVET institutions need to adopt technology as a medium to deliver academic content. South African students from under-resourced schools struggle with technology requirements from institutions of higher education and employers, and it’s because of this that TVET institutions need to introduce e-learning capabilities and complete ‘IS’ solutions to better prepare students for the corporate world.

Today, technology is part of everyday life, societies and organisations rely heavily on technology. It has become a critical part of daily life and important to the well-being and existence of individuals and organisations just like energy and politics. (Adeoti-Adekeye, 1997).

Organisations have turned to IS to remain competitive in the global space. Bradley (2009) and Adeoti-Adekeye (1997) also say that organizations’ interest in ‘IS’ is continually increasing especially those organisations that can be described as progressive, organizations with the need to access information rapidly in a convenient and economic way.

Adeoti-Adekeye (1997) continues to say that these organizations see the need to develop tools to make information management easier, and these are information systems which are valuable resources in today’s world. In short, ‘IS’ is a system designed to accept raw data and transform it through business processes to information.

As much as Information Systems is important in today’s world, education continues to be important. This is as Mamamelela (2002) states that education plays a key role in the growth of economies, as it increases the skill levels of the labor force. The paper continues to say that Botswana and Asian countries are examples of countries where education had a positive influence in the growth of their economies.

‘IS’ has five components, namely hardware, software, data, people, and processes. Out of the five components, three of them form part of the technology aspect of ‘IS’. The three that form part of the technology aspect are hardware, software and data (Bourgeois, 2014). This paper will be focussing on the technology aspect of ‘IS’.

An important area of education discussed in this paper is TVET, which has got the potential to turn around economies. This is as Rojewski (2009) as cited in Muhammad, Shu'aibu, Yahaya & Yasin (2011) states that TVET institutions play a key role in the mitigation of poverty, especially in developing countries. They offer people skills to enable them to self-employ, and to become instruments of evolution in the workplace, giving them a sense of belonging in their respective societies.

The benefits of integrating ICT to TVETs are therefore no-longer an optional instrument but a requirement to achieve a sustainable workforce that can be recognized globally.

The TVET system is designed to prepare students for the workplace. There is currently a demand for employees knowledgeable and skilled in information technology and this, therefore, means that TVET institutions need to give students exposure to information technology for them to be relevant to the modern world of work. This will also enable them to participate fully in the workplace as cited from Rojewski (2009) by Muhammad, Shu'aibu, Yahaya, & Yasin (2011).

**The Aim of the Study** The aim of the study is to investigate the impact of Integration of Technology Innovations into a Technical and Vocational Education and Training (TVET) Institution for Instructional use: A Concerns Based Perspective.

**The Objectives of the Study.**

1) To identify the factors affecting implementation of Integrating Technology Innovations into a Technical and Vocational Education and Training (TVET) Institution for Instructional use: A Concerns Based Perspective.

2)To make recommendation to the management to improve the effectiveness of teaching and learning at TVET institutions by integrating technology innovations.

3)To determine the impact of Integrating Technology Innovations into a Technical and Vocational Education and Training (TVET) Institution for Instructional use: A Concerns Based Perspective.

4)To determine managerial aspect of Integrating Technology Innovations into a Technical and Vocational Education and Training (TVET) Institution for Instructional use: A Concerns Based Perspective.

**The expected research outcomes (expected results of the proposed investigation)**

1)To help TVET management to make decision.

2)The potential benefit of Integrating Technology Innovations into a TVET college will improve the performance of the employees.

3)To show the impact of Integration of Technology Innovations into a Technical and Vocational Education and Training (TVET) Institution for Instructional use: A Concerns Based Perspective.

**Details of how data/information to carry the empirical research will be collected.**

1)**Data gathering process ,qualitative data collection will be used**

Semi-structured, preferably face-to-face, interviews will be conducted as the primary source of data. The following process will be followed:

1. Print interview check list and consent form.

2. Identify purposefully selected individuals and contact them. Purposefully selected individuals are those who will best help them understand the research problem and questions.

3. Participants will be invited for an interview, informed of the purpose of the interview and the amount of time needed.

4. If they agree an appointment will be set up.

* 1. 5. Interview will be conducted under the following conditions: a. Consent form will to be signed by participant and assurance of anonymity will offered
  2. b. Permission will be requested from participant to record audio of the interview
  3. c. The purpose of the research will be explained to the participant.
  4. d. Notes may be taken.
  5. 6. After the interview, researcher will thank the participant
  6. 7. The recorded audio will be stored and backed up accordingly.

(Creswell, 2014; Saunders & Lewis, 2018) I will use Qualitative Data Collection

**2)Data collection instrument**

In the research method it is critical to pay attention to:

- Validity: data collection method accurately measures what it was intended to measure

- and reliability: data collection and analysis produce constituent findings (Saunders & Lewis, 2018)

“Without rigor, research is worthless, becomes fiction, and loses its utility” (Morse, Barrett, Mayan, Olson, & Spiers, 2002, p. 2). The strategies for ensuring trustworthiness in interviews can be categorized into the following criteria: credibility, transferability, dependability and confirmability. The recommended strategies to attain trustworthiness are “negative cases, peer debriefing, prolonged engagement and persistent observations, audit trails and member checks” (Morse, Barrett, Mayan, Olson, & Spiers, 2002, p. 5). Standard interview questions will be asked to participants to ensure validity and reliability in the interview process.

The recommended tool to be used for ensuring academic rigour is Atlas.ti qualitative software. With this tool the data collected will be stored, transcribed, coded and themed to find patterns in the data. All the data collected, and the test run to establish finding will be stored in Atlas.ti and will be submitted as the part of the analysis with the research report. “Without rigor, research is worthless, becomes fiction, and loses its utility” (Morse, Barrett, Mayan, Olson, & Spiers, 2002, p. 2).

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3)The institution that my study will be based on is TVET college

4) **Target population**

My target population is managers and the teachers working for the TVET institution. Every teacher working for TVET institution will form the participant of my research. This research will focus on a specific occupational category this means teachers working for TVET institution will be used.

5)**Size of my target and sample population**

Initially non-probability snowball sampling will be utilized where first sample members who will identify subsequent members within their industries (Saunders & Lewis, 2018). It is essential to follow this kind of sampling to ensure that the right individuals participate in the study who have the knowhow and experience of leading through Robotics. The minimum sample size will be 22, as this is the recommended figure from Guest and Bunce (2006) to achieve saturation of data.