Exploring the Role of Education Research Findings in Policy Formulation: A Case of Uganda's 2019 Technical Vocational Education Training Policy

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Abstract

To formulate a good policy, it is necessary to critically analyse and identify organisational or societal issues that call for policy. However, when tasked to create a policy document, decision-makers frequently take ambiguous and inconsistent stances when identifying the gaps that call for action. Moreover, there is a lack of documented techniques in the literature for determining which public issues call for policy. Various methods are available even within a nation to identify societal issues that call for policy. This research aimed to investigate the role of education research findings in policy formulation from the policymakers' viewpoint. An exploratory single case study design was used to examine how Uganda's 2019 Technical Vocational Education Training (TVET) policy framers utilised evidence from education research during the policymaking process. Three document reviews and in-depth interviews with twenty-one participants were subjected to thematic analysis. Key findings demonstrated that empirical research is recognised as a precursor to formulating an informed policy and that multiple opportunities exist for education researchers to share key findings with policymakers. The study established four main roles, i.e., identifying policy gaps, enacting of relevant policy priorities, guiding content development, and promoting stakeholder trust in the policy and buy-in. Lastly, researchers in this study contend that two critical factors influence the use of evidence in policymaking: first, methods adopted for determining the evidence should be scientific and second, modes for disseminating findings should be carefully considered.

Keywords: Education Research, Evidence-Based, Policy Gap, Policymaking, TVET Policy

Background

Policies are set to address public or organisational issues (Gerston, 2014). To guide a country's growth and development, governments enact, among others, education policies to steer technical and vocational growth. For example, Technical and Vocational Education and Training (TVET) policies play a pivotal role in shaping a nation's technical and vocational workforce and propelling the economic development and social progress of its citizens through enacting priority areas that enhance the quality of the TVET programmes, promoting equitable and inclusive access to TVET, strengthening the governance of TVET in the country, and funding among others (UNESCO, 2016, 2021).

In fact, TVET policies set the foundation for improving the quality, relevance, and accessibility of TVET in a country as well as support the achievement of national and international goals, such as the country's education sector policy, the Sustainable Development Goals (SDGs), and the country's Vision among others.

Like many other countries, Uganda considers strategic development and refinement of TVET policies essential to addressing the evolving needs of a dynamic technical and vocational labour market (MoES-Uganda, 2019). As advocated by several literature sources, Uganda needed to formulate effective TVET policies capable of acquiring critical technical skills and fostering economic growth and social inclusivity (Newson et al., 2021; UNESCO, 2016, 2021). However, policy formulation requires evidence to inform its strategic decisions. Diverse sources of evidence might exist, but there is no record of a clear method that TVET policy framers can use to choose useful evidence. These are used to inform policy formulation, including.

Developing a robust TVET policy that truly addresses the needs of learners, employers, and other stakeholders necessitates a keen understanding of existing policy gaps (Orem et al., 2012) drawn from scientific evidence. In their field guidelines on using science to inform policy, researchers argue that policies supported by scientific methods can engender more support and have a greater and greater impact (Head, 2016; National Research Council, 2012). Thus, a policy agenda should be set on a scientifically researched policy issue/problem that has been brought to the attention of policymakers (Gerston, 2014; Rachelle, 2022). Critical to the initial policy process (agenda setting) is determining the need/gap that requires policy.

Whereas some authors dispute the role of evidence-producing research in policymaking (Frey & Ledermann, 2010; Müller, 2016), others have reported SWOT and PESTEL frameworks as the most common approaches to performing gap analysis (Benzaghta et al., 2021). In Uganda, the role of evidence during the policymaking process has two primary purposes: one, it helps identify and clarify the problem being addressed through policy, and two, it helps identify potential solutions to the identified problems (The Republic of Uganda, 2009).

Evidence from education research that Maclean & Wilson (2009) argued that such should come from empirical and systematic inquiry was of interest to this study. It is stated that research was used to formulate the TVET policy, and the Ugandan government believes that research is the foundation of a perfect TVET system (MoES-Uganda, 2019). However, the choice of the evidence to use and its application in policymaking rests with policymakers (James et al., 2009). It is unclear, though, whether the research that the TVET policy developers allegedly used came from the field of education. Therefore, the main purpose of this paper is to document the role of education research in policy development. The researcher progressed this by conducting an in-depth analysis of the process followed by Uganda's 2019 TVET policy developers to formulate TVET.

Methods

Study approach: An exploratory single case study approach was used in this investigation. As Saunders et al. (2016) recommended, an exploratory study was carried out to pose questions, find new perspectives on a phenomenon, and evaluate the phenomenon of policymaking. The researcher was able to evaluate in-depth the experiences of Uganda's TVET policymakers for 2019 thanks to the case study design (Yin, 2018). Additionally, it assisted the researcher in gaining comprehensive knowledge regarding the application of education research to policy formulation (Amin, 2005) as well as various approaches to data collection and analysis (Yin, 2014) that facilitated a thorough and qualitative investigation of the phenomenon of using education research evidence in Ugandan policymaking.

Study Population and Sampling: The TVET department and other stakeholders involved in creating the 2019 TVET policy were the subjects of this investigation. Officers from MoES, associated Ministries, Departments and Agencies (MDAs), and other stakeholders made up the study's population. They included policy analysts, TVET institution principals, TVET trainers, assistant commissioners, commissioners, directors, executive secretaries of TVET and associated government MDAs, and TVET policy documents, comprising this study's target audience. To be eligible to participate in the study, a person had to have participated in developing the 2019 TVET policy or be an education researcher in that domain (purposive selection).

Data Collection, management and Analysis: Data collection involved interviews of selected participants and a review of three relevant documents, i.e., the 2019 TVET policy, the BTVET strategic plan 2011-2020, and the TVET Regulatory Impact Assessment (RIA) Report of January 2019. This helped triangulate the data sources. As recommended by qualitative researchers, empirical data collection continued until a state of saturation was achieved with 21 participants, where more interviews could not yield new insights (Saunders et al., 2016). The interview data were audio recorded, transcribed, and entered into NVivo 14 to aid in the researchers' thematic analysis. One researcher coded the responses based on prior themes that all three researchers had agreed upon. All three researchers analysed the responses coded at nodes and compiled them into the main themes reported in this work's findings section. The researchers utilised the idea of forward and backward tracing (Newson et al., 2021) when examining the policy document to confirm the use of evidence from these sources in the 2019 TVET policy for Uganda and verify information sources used to inform policy decisions.

Ethical Considerations: In order to perform the study in Uganda, the researchers applied for and were granted ethical clearance from the Uganda National Council of Science and Technology (UNCST) (registration number SS1899ES). Even though there was no personally identifiable information in this study, secrecy was nonetheless valued. Therefore, prior to taking part in the study, each subject had to fill out an informed permission form. Participants were also classified according to Table 1. Additionally, the researchers followed COVID-19 rules when gathering data.

Table 1. Coding of Participants (total of 21 participants)

Participant's position/Institution	Code	Participant's position/Institution	Code
TVET Officers		*Officers from relevant MDAs - continued*	
TVET Standards Officer	**TVO1**	Ministry of Public Service	**POA3**
Commissioner TVET	**TVO2**	Minister of Education and Sports	**POL1**
Directorate of Industrial Training	**TVO3**	*Education Researchers*	
Officers from relevant MDAs		Uganda Management Institute	**EDR1**
Minister of Education and Sports	**MDA1**	Uganda Management Institute	**EDR2**
Minister of Education and Sports	**MDA2**	Kyambogo University	**EDR3**
Minister of Education and Sports	**MDA3**	Mountains of the Moon	**EDR4**
Minister of Education and Sports	**MDA4**	*Heads and Instructors of TVET Institutions*	
Uganda Business Technical Examinations Board	**MDA5**	Nakawa Vocational Training Institute	**HTV1**
Minister of Education and Sports	**MDA6**	Lugogo Vocational Training Institute	**HTV2**
Principal Education Policy Analyst	**POA1**	Shema Technical Institute	**HTV4**
Office of the President	**POA2**	Lugogo Vocational Training Institute	**HTV**

Results

Interviews from twenty-one participants and three document reviews are reported in this study regarding evidence sources used to inform the framing of Uganda's 2019 TVET policy. TVET stakeholders' views on types of information sources used to identify policy gaps included empirical research, stakeholder feedback, reports of TVET impact assessments, public concerns, policy reviews, and emerging trends/practices in the TVET domain. However, this article reports on empirical research findings.

Despite the existence of several research types, the scope of education research considered in this work is empirical results and a desktop/literature review of educational studies. Participants acknowledge the importance of using research in the policymaking process, with several pointing to results of empirical studies specifically gazetted to inform policy and the use of literature reviews of published works. One participant explained *that "empirical research provide a primary evidence because ...it provides the facts and evidence is attached to explain the facts with statistics accompanying them… the facts is explained by evidence"* (POA3, Policy Analyst). This statement underscores the importance of empirical research in providing primary evidence that includes facts and the supporting evidence needed to explain those facts.

This empirical evidence forms a critical foundation for informed decision-making in various fields, including policymaking. No matter what approach is taken, the main aim of research is to generate new knowledge. The intention is to find relevant evidence to support a proposition. *"Me I think many of these things you were a result of desk review. I think a lot of work was on desk review and I think that is what informed them* (HTV3).

The participant believes that desk reviews are a common method for gathering and synthesising existing information, especially when conducting primary research, which may be resource-intensive or unnecessary. However, the effectiveness of desk reviews depends on the quality and relevance of the available data and documents. Research that has influenced education policies in Uganda has either been internal (Ministry imitative) or external (academic research or subcontracted to consultants). According to a participant, *"In some cases where we have been having studies taking place, research people have been going out for studies, then their research findings and information also inform our systems here"* (TVO3). This statement recognises the value of incorporating external research findings into an organisation's internal systems and processes to drive improvements and informed decision-making.

A political participant involved in the 2019 TVET said, "*There were a number of researches being done. Of course, I may not be able to remember which one exactly but I know there were some kinds of researches which were done"* (POL1). The participants agree that there have been multiple initiatives but do not mention these initiatives. However, a participant argued that using any research findings may not guarantee that the policy is based on appropriate evidence but the choice made by the policymakers: "*For me, I thought possibly when we do research...that if they pick mine, hers did not have potential issues ... maybe when it is done [choosing information sources], they look at all this[available researches], they pick points there, they come up with one concrete document"* (HTV2). The participant states that any research findings can be used to guide policy, indicating that poor evidence selection could lead to incorrect policy decisions. It is important to make an effort to select the best available evidence. Another participant rejected the idea of using any research findings when asked if the quality of the study did not matter, stating that decisions had to be made and that only pertinent findings should be used (EDR2). As a result, criteria for selecting research and information sources that can be trusted to provide the evidence needed to direct policymakers in setting appropriate policy objectives necessary to propel the nation's TVET in the right direction must be established. The best available research evidence was advised to be used, with a focus on using empirical evidence for the context in which the respondents are making the policy. For policy to benefit from research, policy formulators should appreciate the role that research can play in shaping policy and conduct relevant studies to understand the context (HTV3). An education researcher elaborated on this by saying, "*We should ask ourselves, is academic research actually important for the TVET? If yes, then we can begin thinking of what kind of academic research can be used because we want to recommend academic research that actually adds value to the policy"* (EDR1). For this reason, the study further explored benefits that accrue from use of research evidence in policymaking. Participants' perception of the benefits that could arise from using research evidence in policymaking include;

(a) Identifying Policy Gaps

A participant explained that the main purpose of conducting research before policy development is to help identify policy gaps that should be addressed.

One is that when you do a policy out of research it will definitely show that there are gaps that you're going to address. When research is done, it is scientifically proven that it is evidence-based…and that means this policy will be very relevant because it is going to help in solving a problem that is existing…But if you do a policy without evidence of research then you're likely to either duplicate what has already failed or you're going to repeat what has already been done by other people, or you are going to put resources into wastage … you may come up with a policy that is already outdated because the trends now in the world over including our country are changing very fast (HTV3).

The participant in the aforementioned quote highlights the value of research in identifying gaps in policy regulations and the relevance of research in providing evidence-based policymaking, addressing current issues, preventing inefficiencies, and making sure that policies stay effective and relevant in a changing world.

The participant went on to say that in the absence of research evidence, any developed policy might not be able to adapt to the changing dynamics and might even be out of date.

(b) Guiding Content Development

One key aspect of a policy is to have content that clearly articulates requirements to be met. Evidence is required to guide decisions about priority issues, content development, and, importantly, proper articulation of the requirements to be met by policy implementors. One of the participants confirmed that current practices help inform the course of action, "*Evidence has to be used to practice the needs of society so far us on the research that is not linked to the needs of people will be misplaced so has to be what do we need for the people and then do the research around that*" (MDA1). An official from the MoES emphasised the importance of research in guiding policy development, saying, "*Research is a very big thing, a very important thing that drives and guides the development of anything. So, I think we should have a standalone department fully facilitated for research because there are so many areas that require research"* (MDA6).

Another participant further explained the need to have evidence that cannot be challenged by anyone and win the approval of the cabinet. The participant said,

Research is very good because you develop something when you have concrete findings, we call it facts. Information and you cannot be challenged. You cannot be challenged, these policies now are developed, we cannot challenge it because it was approved by cabinet, we have to implement it *(MDA4).*

The emphasis by some participants shows the relevance of research in guiding content development; research, when used, provides confidence in the document produced to the readers. Indeed, another participant suggested that researchers' findings could have guided content development. However, the same participant argued that researchers' (theoretical suggestions) contributions should be merged with practice by policymakers to make them relevant.

Now you see this policy was pulled up from some findings obtained from the studies... we were told researches were guiding the policymaking. It could be the content of course what I know, most of these studies once you get it, first you have to sit and analyse it and see whether what academicians are proposing fits the area you want … because academicians may propose theories; but now here you have to blend theory plus the practical part (MDA7).

In this participant's view, researchers' contributions are often theoretical and impractical, contradicting the essence of relevancy and state of practice that research evidence provides.

(c) Enacting of Relevant Policy Priorities

Besides supporting content development, the evidence is used to set policy priorities.
As indicated in the previous quote by head of TVET Institution, research evidence is able to guide the development of relevant policy. Another participant confirmed this by saying,

Given the rigour in methodological processes we go through to come up with the research; if this research informs a policy than there is a likelihood that … the policy is going to be relevant. It is actually answering a problem that has been identified and justified through a rigorous process. The research can help us to have comprehensive policy because of the wide consultations somebody undergoes when you're writing research (EDR1).

The two participants agree that evidence produced through a rigorous research process can guide policy development by providing applicable and practical evidence to inform decisions made on policy priorities. This relates to developing relevant content to meet society's needs.

(d) Promoting Stakeholder Trust in the Policy

Finally, participants indicated that implementors of a policy put more trust in a policy, as evidenced by research findings. A participant claimed people would not lose trust and question/challenge such a policy. In his/her words, "*the policy would not be questioned*" (TVO3). To expect successful policy operationalisation, the implementors should first have confidence in it.

Overall, participants agreed that using research in policy is beneficial in many ways. This points to the need to address specific regulatory and policy gaps in the domain for which the policy is being developed, guiding content development to produce policy that is relevant to address the needs of the community/population and build stakeholder trust in the policy and systems that run that domain.

In order to ensure the attainment of these benefits in policy, governments should promote the use of diverse information sources. However, this would not be possible without the competencies to identify and apply such evidence in policy formulation. Therefore, we asked participants to provide views on whether Uganda has the necessary capacity, organisational support and resources to identify and apply evidence in policy development.

Discussion

This study's findings show that participants emphasised researching as a precursor for policy development. Although Müller (2016) indicated that others dispute the role of research produced for policymaking, this study's findings strongly report that research is an essential part of the policymaking process. This finding aligns with Tseng (2012), who noted that the policymaking process could not go well, minus research evidence. However, participants could not provide evidence of the 2019 policymakers' research process to identify gaps due to a lack of evidence, limited access to information, data privacy and confidentiality and lack of transparency. Also, there were mixed views regarding the nature of research that would produce evidence worthy of being used in policymaking. While some participants referred to government sectoral reports, others pointed to private sector reports and RIA as examples of research conducted in the policy development run-up. We, the researchers, wonder whether this could mean that education research was not performed or that policymakers did not try to identify research findings in academic institutions that could inform TVET policy. We hope that policymakers try to disallow the allegation by one participant who claimed that policymakers in Uganda do not appreciate the role of research in policy.

Also, by stating several benefits of using education research findings as evidence for policy formulation, this study shows that TVET stakeholders in Uganda appreciate the importance of using evidence in the policymaking process. It is important to note that Uganda used both forward tracing (RIA and empirical research commissioned purposely to inform policy) and backward tracing (literature, previous policy documents and benchmarking (Newson et al., 2018). Among the key benefits that Uganda's TVET stakeholders attribute to using research evidence in policymaking are that it helps identify policy gaps, informs content development, enacts relevant policy priorities, and promotes stakeholder trust in the policy, especially the trust of implementers. As Newson et al. (2021) contend, research can inform a policy in both instrumental and conceptual ways. Governments should promote diverse information sources to ensure the attainment of these benefits in policy.

We also argue that research findings of relevant studies can only be utilised by policymakers if they access them. According to Strydom et al. (2010), there are many factors other than access that lead to the utilisation of research evidence; these include the credibility of the scientist and the extent to which policymakers and scientists attempt to understand each other's viewpoints, their ethics and priorities.

Therefore, to bring evidence that could influence policy decisions to the right persons, our study confirmed four main modes of communication that can facilitate this: traditional communication channels, stakeholder engagement, participation in graduate studies, and creation of local research platforms. Although most of the channels identified in this study exist in the literature (Baporikar, 2016; Garforth & Usher, 1997; Hennink & Stephenson, 2005; Zizka, 2017), a less discussed avenue that our research brings out is affirmative action in promoting MDAs' participation in academic research and creating a research platform aimed at disseminating policy briefs. In fact, best practices can be adopted from countries and research findings that reflect contextual environmental conditions similar to Uganda's.

There was also an interesting finding that reflected on several avenues used by academic researchers to share their findings, which are not suitable in policymakers' eyes. Although a participant argued that policymakers pay attention to most of the avenues researchers use to share their findings, others argued for additional ways. This study confirms that education researchers in Uganda use similar channels for disseminating research that other authors previously identified work for low- and middle-income countries (Uzochukwu et al., 2016).

There were mixed opinions on the best approach to informing policymakers of the research findings that can inform policy. However, two significant strategies emerge from the literature that promotes knowledge and understanding of policy-relevant research findings, i.e., (1) stakeholders' direct engagement with researchers and trying to find evidence and (2) the need for stakeholders to engage in participatory and transdisciplinary research approaches to co-produce knowledge and inform policy (Erismann et al., 2021; Uzochukwu et al., 2016). Stakeholders' direct engagement with and seeking evidence from researchers is one way that policymakers get informed about the findings from research (Erismann et al., 2021). This approach is considered proactive to stay informed about new research findings. It is beneficial since it allows stakeholders to get up-to-date information. Policymakers, industry representatives, and advocacy groups can access the latest research findings by directly engaging with researchers, ensuring they can access the most current and relevant information. Stakeholders can also request customised information and evidence aligned with their needs and interests. The tailored approach allows them to focus on the aspects of research most pertinent to their concerns and guided by a particular policy in place. Stakeholders seeking evidence directly from researchers is a collaborative and informed approach to evidence-based decision-making. It ensures that stakeholders have access to the knowledge and expertise of researchers, leading to more informed, effective, and evidence-driven policies and actions.

The other approach to informing stakeholders about research findings is to engage in participatory and transdisciplinary research approaches to co-produce knowledge and inform policy (Erismann et al., 2021). Stakeholders' engagement in participatory and transdisciplinary research approaches is pivotal in co-producing knowledge that can inform policy effectively. The collaborative process works in participatory engagement that entails active involvement and collaboration with stakeholders from various sectors, including policymakers, community members, advocacy groups, and experts, and transdisciplinary collaboration that brings together individuals with diverse expertise and backgrounds to address complex issues. It encourages collaboration between researchers, practitioners, and stakeholders who may have different knowledge and skills and co-production of knowledge; this relates to active participation by the stakeholders in generating knowledge by contributing insights, data, and context that enrich the research process and findings.

To promote the use of research evidence in policymaking, the two community's theory advocates for bridging the gap between policymakers and researchers by creating information sources for policymakers to access research, improving communication, and building relationships through gaining trust and confidence between researchers and policymakers (Caplan, 1979). In fact, to advance the use of research evidence in policymaking, this research argues that no single approach may be suitable, but a mix of approaches should be used to ensure the best efforts in reaching out to the right decision organs in policymaking Despite several modes available to researchers to share their findings with policymakers, there is a lack of clarity about which modes are suitable. Therefore, researchers have continued to use modes/channels within their reach, disregarding their appropriateness to reaching the right policymakers. Yet, the difficulty in choosing a methodology may hinder determining policy gaps. Still, techniques and the capacity of stakeholders to identify suitable evidence to be used in policymaking still remain a challenge in developing countries. "*While policymakers in industrial countries may have the luxury of engaging multiple methodologies and accessing all the primary evidence, those in developing countries often lack such capacity*" (Phillips et al., 2020). It is noted that even with the increasing interest of policymakers in accessing research findings relevant to inform policy, it is usually not easy for them to access these findings. The advocacy coalition framework can be borrowed to support actors within the research and policymaking subsystems to form a coalition with a shared belief based on the scientific findings to inform policy (Cisneros, 2021). Notwithstanding, the use of evidence helps increase confidence of the users on the particular policy produced.

The results presented in this work corroborate the findings of other works in TVET policy gap identification that argue for the use of empirical evidence (Orem et al., 2012). However, there is no evidence that policymakers in Uganda have adopted any. This could be due to the inability to systematically utilise them due to a lack of capacity building, resource constraints, organisational culture, and political pressure. Addressing such challenges may require a combination of capacity-building efforts, changes in organisational culture, improved coordination among government agencies, and the allocation of sufficient resources to support systematic policy analysis and gap identification, as contends Greenhalgh et al. (2016).

This study's findings show that participants emphasised researching as a precursor for policy development. Although Müller (2016) indicated that others dispute the role of research produced for policymaking, this study's findings strongly report that research is an important part of the policymaking process. This finding aligns with the argument that the policymaking process cannot go well without research evidence (Tseng, 2012). However, participants could not provide evidence of the 2019 policymakers' research process to identify gaps due to a lack of evidence, limited access to information, data privacy and confidentiality and lack of transparency. Also, there were mixed views regarding the nature of research that would produce evidence worthy of being used in policymaking. While some participants referred to government sectoral reports, others pointed to private sector reports and RIA as examples of research conducted in the policy development run-up. We, the researchers, wonder whether this could mean that education research was not performed or that policymakers did not try to identify research findings in academic institutions that could inform TVET policy. We hope that policymakers try to disallow the allegation by one participant who claimed that policymakers in Uganda do not appreciate the role of research in policymaking.

Another instrumental source of information/evidence that the participants reported as used in TVET policy is the regulatory impact assessment (RIA) report. They claim that RIA is pivotal in identifying policy gaps and key priority areas, setting policy objectives, determining key stakeholders and the monitoring and evaluation framework (Hertin et al., 2009; Staroňová, 2014). This finding confirms that the results of such an assessment [RIA] could provide vital information about issues relevant to the government agenda, such as political risk, opportunities, finance and resource implications, and sustainability (Head, 2016) that would come with such a policy.

Finally, the study found that empirical research and RIA reports as well as some authors, point to SWOT and PESTEL as frameworks that have found widespread acceptance among practitioners for analysing the environment prior to developing strategies (Benzaghta et al., 2021). However, this could not be confirmed in Uganda's policymaking environment. Rather, Uganda focused on benchmarking and conducting RIA (MoES-Uganda, 2019). Though these methods lack clearly scientific and documented methodologies, both RIA and benchmarking utilise scientific techniques used in conducting empirical research.

Finally, the study discovered that various information sources, including stakeholder feedback, public concern, emerging trends and practices in the TVET domain, and empirical research and RIA reports, could have influenced Uganda's 2019 TVET policy. Although practitioners have widely accepted using SWOT and PESTEL frameworks for environment analysis before strategy development (Benzaghta et al., 2021), this could not be verified in Uganda's policymaking environment. But instead, benchmarking and RIA were the main sources in Uganda's 2019 TVET policy formulation (MoES-Uganda, 2019). Despite the lack of clearly defined scientific and documented methodologies in these approaches, both RIA and benchmarking employ scientific techniques used in empirical research.

Conclusion

To enrich the current understanding of evidence-based policymaking, the study explored the methods available to framers of Uganda's policy to identify evidence-rich information that can be utilised to inform a domain policy. For a policy to be reviewed or proposed, there must be a strong indication of any gaps that need to be filled. While SWOT and PESTEL frameworks are frequently cited in the literature as the most popular methods for conducting gap analyses, this study urges policymakers to search for sources of evidence that have already been shown to have sector-based gaps that need to be addressed by policy. Although there are a variety of ways for researchers to share their research findings, caution must be exercised when using methods derived from scientific methods in addition to those that allow researchers to communicate with policymakers. Lastly, the study identified four crucial roles that education research plays in the creation of TVET policy. These roles span the entire range from identifying a gap in education that needs to be filled with policy to directing the establishment of policy priority areas, developing content, and fostering implementers' confidence in the policy.

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