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Techniques from Language Practices of Highly Cited Authors for Technical and Vocational Education and Training Research Writing

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Abstract
Technical and Vocational Education and Training has gained importance but there is a noticeable gap between its research and teaching. While its teaching is more dynamic the research writing is scarce despite the performance measure demands. Rapid technological advancements, the multifaceted roles of the teachers, and the second language barrier escalate the pressure on research performance measures. Language models for research writing can help to alleviate research writing language practices. This paper explores the language practices of highly cited research articles for the technical and vocational education and training application. Specifically, it looks at how prolific writers write. Given the pressing need for a more accessible and more descriptive language model for technical and vocational research writing, this paper aims to assist by presenting techniques derived from the analysis of 62 highly cited research articles indexed in Scopus. Using move analysis, the study identifies 14 emerging techniques used in the introduction sections, offering a model for the writers and instructors. The techniques highlighted in this study not only enhance the engagement of introductions but also aim to increase readership and citation rates.
Keywords: Technical and Vocational Education and Training, Writing techniques, Language Practices, research writing

Introduction

Technical and Vocational Education and Training (TVET) is the new driving force in promoting economic development, expanding employment, and improving the quality of employment. In shaping the human workforce to meet the requirements set by the job market, TVET institutions are incorporating the latest technologies, changing their curriculum content, and improving the delivery systems to produce students with both knowledge and skills. Despite the increasing importance of TVET teaching which is dynamic, there is a noticeable shortfall in TVET research. Research in TVET is regarded as a neglected area (Tun, & Juchelková, 2022). The scarcity of TVET research writing is aggravated by the multifaceted roles assumed by TVET teachers and the need to catch up with rapid technological advancements. In addition, the teachers are often constrained by language challenges and time limitations. Nonetheless, research writing is still crucial for TVET academics to fulfill performance measures. The pressure escalated when the research had to be written in English, which is the second or third language for many TVET teachers.

Writing research articles is challenging as authors not only have to defend their research findings but also have to write the research in the writing conventions according to their research communities. Good language practice facilitates effective communication of complex technical concepts and research findings to diverse audiences, including educators, policymakers, and practitioners. Clear and precise language ensures the intended message is conveyed accurately, promoting comprehension and knowledge dissemination within the TVET community.

However, non-native English speakers often grapple with the conventions of research writing and struggle due to limited vocabulary. Therefore, there is a pressing need for a more straightforward and more descriptive language model for TVET research writing, particularly on how prolific writers write. TVET writers can emulate these techniques to produce more engaging introductions worthy of a readership that may lead to higher chances of being cited. Such a description of technical language use helps instructors, module developers, and research supervisors to give more explicit instructions and guidance.

Extensive research has explored this area in research articles of different disciplines and found rhetorical structures differ across disciplines (Zhang & Cheung, 2023). In the biomedical discipline, the writers are more dynamic in promoting strategic intervention while upholding standards for evidence-based research (Wickman, 2023), whereas, in the Linguistic discipline introduction sections, the writers are keener on highlighting elements of novelty and linking them to the existing literature (Bondi, & Nocella, 2023). Engineering research writers prefer to state the limitations of previous research rather than giving a direct indication of the research gap (Gao & Pramoolsook, 2023). While these studies investigate language practices in various research disciplines less attention has been put into TVET research writing context. On that note, this study was conducted to explore the language practices of highly cited research article authors.

1. To dentify the rhetorical strategies used by highly cited research article authors.

2. To examine the techniques used by highly cited research article authors to accomplish the strategies.

The findings will contribute to language descriptions for research articles that can be emulated by writers and writing instructors. Researchers can replicate the design of this study in other TVET areas for more specific techniques in writing TVET research in education, curriculum development, and assessment.

Literature Review

From a global perspective, in High-Income countries, in particular, the US (Chowdhury &

Ghosh, 2023), the UK (Avis, 2023), Australia (2023), and Low and Middle-Income Countries (LMICs) like Malaysia (Mazlan et al., 2015; Richard, 2023), Kazakhstan (Doskeyeva, 2024), Pakistan (Asad et al., 2023), Jordan (Al-Makhariz et al., 2023), and Kenya (Gideon, 2023) stand to recognize TVET is a pathway to equip the learners with skills needed for the growing industrial demand, and digitalization era. TVET is crucial in reducing unemployment and addressing the changing scenarios in the country (Chowdhury & Ghosh, 2023). TVET not only promotes quality education for all including minority groups, and students with special needs and abilities, it is an opportunity for lifelong learning of all age groups. Recent drives in social innovations and sustainable development goals (SDGs) call TVET research centers for more prominent roles, particularly on applications for real life, and on recommendations for policies.

However, research writing in TVET is regarded as a neglected area. Research writing on TVET is limited to certain areas, such as concepts of validity and reliability in TVET research (Salleh, Sulaiman, & Gloeckner, 2023), curriculum content, and improving the delivery systems (Abdullah, Saud, & Kamin, 2019). There is a crucial need for insights on how to initiate, and promote TVET research and innovation (Tun, & Juchelková, 2022). The increasing focus on social innovations and SDGs, underscores the crucial role of TVET research globally, emphasizing the necessity for research writing to provide real-life applications, and policy recommendations (Khilji & Roberts, 2022).

Technical and Vocational Education and Training research

Research writing is essential for TVET academics to fulfill performance measures, and the pressure escalated when the research must be written in English, which is a second or third language for many TVET teachers. Research must be written in standard language to enhance credibility and professionalism. Most importantly, standard language practice is vital in fostering international collaboration and knowledge exchange in the form of citations in the TVET research domain. However, non-native English speakers often grapple with the conventions of research writing and struggle due to limited vocabulary (Kurniawan, Nabilla, & Mauludini, 2024). The most countries that published TVET research are the US, Australia and England (Omar et al., 2023), which happen to be countries of English native speakers. Countries with English as a second or foreign language are lower in the graph, which includes China, Germany, Italy and France. To spur TVET research writing, language practice by prolific writers in highly cited research articles must be identified for a more accessible and more descriptive language model for technical and vocational research writing.

Multiple Roles of TVET Instructors

Accelerations in Artificial Intelligence (AI), Automation, Information and Communication Technology (ICT) and the Internet of Things (IoT) have changed the TVET landscape tremendously which in turn, posed new demands on TVET teachers. These accelerations in the TVET landscape include digital teaching that demands new competencies in planning, organization, innovation, and management of technology in teaching (Diao & Hu, 2022). While TVET teaching has become more dynamic and gained more importance, TVET research evolution and performance are still limited and failed to develop in synch. The most published research areas in TVET are educational research, human capital resources, and technology transitions in education (Abd Majid et al., 2022). The limited research in TVET is reasonable as the accelerations in technology also demand TVET teachers to play multiple roles that take most of their time and, as such, limit on the teachers' role as researchers.

The multiple roles of TVET instructors include curriculum developers, instructional designers, teaching implementers, project developers, project supervisors, evaluators,

occupational practitioners, innovators, and researchers in teaching. Each of these roles requires different sets of competencies, and the following are just a portion of the desirable characteristics:

- As curriculum developers; TVET teachers are expected to gauge the industry professional standard expected from the graduating students.
- As instructional designers, the teachers select and design tasks that are engaging and build the students' professional competencies. This includes an executable teaching plan, and preparation of training equipment, materials, and tools.
- As project developer and supervisor, the teachers cultivate plans that demonstrate the comprehensive practical skills to guide the students with the expected learning tasks, standards, laws, regulations, and legal awareness.
- As evaluator, the teachers must be familiar with the curriculum system, organize, implement the teaching evaluation, and give feedback to the students.
- As an innovator and researcher in teaching, they must carry out research, host research projects by the students and give constructive suggestions.

Because there are multiple roles expected from TVET teachers, their roles as writers for their research are seldom taken up. Writing their research demands time, focus and skills as such, many TVET teachers stop short when it comes to writing out their research. Correspondingly, research in the TVET area particularly in teacher training, is regarded as a neglected area (Smith, 2022). This explains the small number of publications in TVET research.

TVET Teachers as Researchers

Opportunities for TVET research enhancements congregate in many areas, and can be undertaken by researchers, particularly in TVET teaching, learning, assessments, evaluations, innovations, practical industrial solutions, and occupational safety. Unlike pure scientific researches that aim to be at the frontiers of knowledge, researchers in TVET focus on practical and realistic solutions for classroom and workshop activities, as well as contributing to industrial and socio-economic development in a country. However, in some countries, there is a severe lack of data on TVET research, leading to the perception that it is a neglected area (Tun & Juchelková, 2022). Some challenges that result in the scarcity of TVET research are lack of funding, limited research leadership, insufficient foundation for research, difficulty in research writing, lack of networks, and inadequate know-how on networking opportunities.

Among measures to increase TVET research are grant incentives and commercialization opportunities. Incentives on initiating and promoting TVET research have been made (Postiglione & Tang, 2019; Ibrahim et.al., 2022) but the execution level of writing out TVET research leaves much to be desired. Research writing is described as a cumbersome task because it takes too much time and focus. TVET teachers carry on many roles. Often, writing research seems to be too laborious and too complicated, particularly when English is their second or third language. Easier ways to write TVET research in English are needed, and studies on this deserve attention. Standard language practices within the TVET field enhance the credibility and professionalism of research writing. Consistent and appropriate use of technical terminology, disciplinary conventions, and discourse patterns not only reflects the researcher's expertise but also aligns the work with the standards of the TVET community. Good language practice is fundamental to TVET research writing as it enables effective communication, enhances the credibility of the research, and promotes international collaboration within the TVET community.

Related studies on Language practice in research writing

Research on language practices in research writing can provide instructions and guidance to instructors, module developers, and research supervisors. The research often aims to give language teachers a better understanding of the texts presented in the classrooms, how the writers write, and how target communities use these texts. Studies on research writing analyze collections of texts, to get a more representative picture by looking at the frequency of words, patterns, and features.

The introduction and early sections of a research paper serve as a critical opportunity to make a strong impression, which encourages continued readership that leads to citation. There is a growing need for research writing to adopt more robust strategies. One key aspect involves captivating the audience right from the beginning of the paper. The initial sections of the research work are crucial, especially in creating a compelling and engaging narrative that not only hooks the readers but also sustains their interest throughout the document (Zhou et al., 2023).

It is imperative to engage readers from the beginning as the competition for readers' attention intensifies in the digital era. With abundant online information, researchers face the challenge of standing out in capturing the interest of their target audience. Researchers recognize that the impact of their work, which is reflected in how their work is cited by peers and scholars in the field. By crafting a compelling and engaging introduction, researchers not only enhance the chances of retaining readers but also increase the probability of their work being cited by the academic community (Kurniawan et al., 2024). In essence, it is essential to strategically hook and maintain the audience's attention. By employing effective hooks and creating engaging content from the outset, researchers can navigate the challenges of the digital era, maximize readership, and enhance the impact and visibility of their scholarly contributions.

Typically, researchers communicate the primary outcomes and significance of their study in the results section. However, it is more effective to introduce the main findings and their importance in the introduction section of a research article. Such strategy avoids relying on the assumption that readers will continue reading up to the results section to uncover the study's value (Moskovitz et al., 2024). Logically, the outcome of the research should be presented as early as possible to hook the readers to read further.

Some studies found that the introduction section is unlikely to include the declaration of the main findings and the research's value (Samanhudi, 2017; Ina Suryani et al. 2023). A recent study reports the opposite finding (Deng et al., 2024). The existence of these divergent findings raises questions whether prolific writers reveal the principal results of their study in the introduction section, or defer the announcement to the subsequent results section. The differing findings could be attributed to the analysis of research articles from different disciplines such as linguistics (Geng et al., 2023; Samanhudi, 2017), performative arts (Suryani et al. 2016), Islamic studies (Haryudin, 2023), and business management (Alsharif, 2023). In regards to the differences, this study focuses on the analysis of the techniques used in computer science research articles published in Scopus-indexed journals. While there are studies on computer science articles (Aleshinskaya, 2023; Anthony, 1999; Shehzad, 2012) the focus was not explicitly on Scopus-indexed journals. Focus on Scopus-indexed journals is essential for Malaysian research writers as it is accounted for in most performance measures for grants, appraisal and promotions.

While the emphasis on the announcement of research findings and values has been highlighted as a good strategy for research writing, there is little description of how these announcements can be made. Many researchers reported on the frequency of the strategy used in specific disciplines (Qurratu'aini et al., 2022). While many studies have used the CARS model as the tenet for research, most of these studies stop short at reporting on the frequency of the strategies in the body of text in their study. Little has been mentioned about how the writers fulfilled the

strategies suggested in the CARS model. For this reason, this study uses the bottom-up approach to identify the possible ways to fulfill the strategies. Still, there is little description or illustration of how prolific writers accomplish this strategy, particularly in the techniques used. The description of how the strategy is accomplished creates a platform for the writers to learn from the techniques and emulate good writing practices; therefore, this study analyses how this strategy is performed in the works of prolific writers. Swales' Create a Research Space (CARS) model, presents a framework to understand the rhetorical structure using three key moves, each with specific steps. The framework guides good practice and well-articulated language to ensure that research articles are accessible and understandable across borders.

Previously we have reported that many Malaysian writers in the Performative Arts discipline rarely disclose their findings in the introduction section while this strategy is commonly used by international writers (Ahmad et al., 2021). As shown in Table One, non-native writers prefer to delay the announcement of the findings in the later section of the articles.

Table 1. *Comparison of percentage of strategy usage between international writers and nation-specific writers*

Strategy used	International writers (Anthony, 1999) (Shehzad, 2012) (Aleshinskaya, 2023).	Indonesian Writers (Nabila et al., 2021) (Rahayu et al., 2022) (Wijaya & Bram, 2022)	Persian Writers (Adel et al., 2020)	Pakistani Writers (Nawaz et al., 2022)
Announcing principle outcomes	75%, 73%, 65%	25%, 0%, 0%	19.4%	5%
Stating the value of the present research	55%, 100%, NA	25%, 3.45%, 50%	13%	25%

On top of knowing that the strategy is essential, it is also crucial to provide the writers with the techniques and examples on how the expected strategies can be achieved. This paper continues by presenting the various techniques used by prolific writers to achieve this strategy. Understanding the techniques used may empower the writers to emulate the good practices, which in turn helps them to write faster and more effectively.

Methods

The purpose of this paper is to expedite the research writing process amongst TVET researchers through model writing. The model developed from this study puts forward the techniques discovered in the articles written by prolific writers. This study uses text analysis from the qualitative research method to identify the prolific writers' practices in the introduction section. This study chooses 62 Scopus-indexed research articles. The articles are the most cited computer science articles written by writers from Malaysian institutions. The computer science research area is chosen because this field has a dynamic landscape for research publication due to the high number of journals and high frequency of publication. The highly cited articles are analyzed for rhetorical strategies patterns proposed in the CARS model (Swales, 2004). The text analysis approach suggested by Biber, Connor, and Upton (2007) is conducted, generating the frequency count for the strategies.

The CARS model (2004) suggests strategies for writing academic research by proposing three moves using ten recommended steps. The first move is where the writers tell the readers about the topic of their research. The explanation of the intended research area gets more detailed. Next, the writer makes the second move, which directs the readers' attention to the research niche. In carrying out this strategy, the writers support the intended research in the niche by mentioning the works of previous researchers. CARS model suggested two related steps for this strategy where the writers could highlight the research gap in the niche area, and explain why the intended research needs to be done. The third move is where the writers tell the reader about the research that will be discussed. In this third move, the writers describe the rationale for the intended research. In doing so, the writers may borrow credibility from the works of previous researchers by citing some major related works. In some cases, the writers may want to inform the readers about the research questions, explain some terminologies or definitions, and briefly notify them about the method used in the research. In some research areas, the writers concisely inform the readers of the main findings and disclose the possible importance of the research.

Qualitative research suits the investigation for this study, which aims to describe how the strategies are used in the actual text. Moreover, this study involves interpretation of meaning that is unquantifiable and complex. Results obtained through the Likert scale could reflect the writers' opinions or beliefs regarding the strategies they employed. However, determining whether their beliefs and their actual practices really match, necessitates more than just a survey of perceptions. Identifying the realistic picture of what strategies are being practiced and how the practices are accomplished requires more profound study.

This research utilized interviews to investigate the specific challenges faced by computer science researchers in Malaysia when composing the introductory sections of their research articles. The decision to incorporate interviews aimed at substantiating and augmenting the findings derived from the move analysis conducted in the study. Following the guidance by Creswell and Miller (2010), the research sought to enhance the study's validity by employing a "second lens." This approach is grounded in the qualitative paradigm's foundational assumption that reality is socially constructed and influenced by participants' perceptions. The five participants were writers with experience in Computer Science research. Through these interviews, the research aimed to gain deeper insights into the writers' perspectives, validate the findings obtained through move analysis, and enrich the overall understanding of the complexities in representing participants' realities within the analyzed texts.

Findings

The findings are presented in two parts. The first part reveals two critical strategies that are used by the highly cited writers. The two strategies are considered critical because the findings indicated a variation. The second part depicts the techniques used to achieve the strategies. The data were obtained from the move analysis and interviews. It is also supported by an extract taken from two writers named Writer Abby and Writer Betty.

Critical strategies used by highly cited authors

Findings indicated that Malaysian writers of highly cited articles use strategies suggested in the CARS model. However, two strategies are critical as the findings indicate disparity. Table Two shows that only 14% of Malaysian writers announce the principle findings and only 44% of the writers prefer to write about the value of their research in the introduction section. When interviewed, Writer Abby is reluctant to announce her findings in the introduction section as she said "We *don't mention here because it will be too long then it would be boring*." As for stating

the value of her research, she said. "It *is better to put it in the conclusion.*" Writer Betty, on the other hand, says, "I *just put a bit of the contribution, like how many percent of improvement, just a bit, no details.*"

In summary, the data indicated a mixed preference on whether the main findings and value of the research should be stated in the introduction section or not. Given the results of other studies mentioned, the limited percentage identified in this study suggests a hindrance in adopting this strategy among Malaysian researchers.

Table 2. *Comparison of percentage of strategy usage between Malaysian highly cited writers and international writers*

Strategy used	Malaysian Computer Science highly cited writers	International Computer Science writers (Anthony, 1999) (Shehzad, 2012) (Aleshinskaya, 2023).
Announcing principle outcomes	14%	75%, 73%, 65%
Stating the value of the present research	44%	55%, 100%, NA

Table Three shows, authors with high citation rates tend to employ the discussed strategies more frequently than their counterparts with zero citations. A comparison of the entire corpus of Malaysian articles indicates that the writers of highly cited articles (N=62) demonstrate a greater inclination to employ this strategy in contrast to the writers of articles with zero citations (N=65). The strategy of announcing the principal outcome, for instance, is executed by 14% of highly cited authors, showcasing a slightly higher adoption rate compared to the 12% observed in the group with no citations. While this difference may appear modest at two percent, it underscores the distinctive characteristics embraced by the two author groups.

Table 3. *Comparison of percentage for Research articles with high citation and research articles with zero citation*

Strategy	Research articles with higher citation	Research articles with lower citation
Announcing principle outcome	14%	12%
Stating the value of the present research	44%	24%

Techniques used to accomplish the strategies

The highly cited writers used the strategies suggested in CARS models by using many techniques. The techniques are explained according to the three main strategies suggested in the CARS model. The first strategy, which is *establishing the research territory,* was fulfilled by all writers in this study. The writers offer a descriptive account of the study and present the definitions associated with the study. The writers also make comments on the broader subject matter of the research. The writers were also found to use citations to support the techniques.

The second strategy, which is *establishing the research niche*, has two steps which are *indicating a gap* and *presenting a positive justification*. The prolific writers achieved this by

acknowledging the limitations within the research area. For example, Writer Cassey wrote, "*alginates from seaweeds are used for culinary purposes. Despite their usefulness, unfortunately only little work has been done on the incorporation of seaweed in...*". In the beginning of the sentence, the niche "seaweed" is mentioned acknowledging its use in culinary practice. Next, the writer uses the Adversative conjunction 'In spite of' to suggest limitation to indicate a gap in the use of the niche item of seaweed. Other techniques are highlighting problems that require resolutions, conveying suggestions from prior researchers and building upon the works of others by providing illustrations. The complete list of the techniques for the next step is *presenting justification* are in Appendix A.

The third strategy in the CARS model is announcing the intended research descriptively. Table Four shows four possible realization techniques. Here is an example from Writer Dumas on the second technique, which is *announcing the purpose of the present research*. "This research is carried out to provide a mechanism through the development of a prototype, to provide a service to the homeowner to optimize the usage of electricity through remote control using a mobile phone." In this example, the Writer Dumas announces his research by providing two reasons for the study which are to provide a mechanism through the development of the prototype. The second reason is to provide service for the homeowner to optimize electricity usage. By giving reasons when announcing the intended study, the purpose of writing is more explicit and more assertively stated.

Table 4. *Techniques used to fulfill the moves and steps*

Rhetorical strategy	Realization techniques
Move 3 Announcing present research descriptively and/or purposively	Writers must present the intended research descriptively. Writers must announce the purpose of the present research. Writers must formulate the research objectives. Writers may also embed the announcement within the other steps in Move 3.

This third strategy also includes giving definitions, summarising the methods, announcing the principle outcome and stating the value of the research. This strategy ends with outlining the structure of the paper. All the techniqies on how these strategies were fulfilled are listed in Appendix A.

Discussion

This study was set to identify the rhetorical strategies used by highly cited research article authors. Our findings indicated that highly cited writers comply with the suggestions in the CARS model. However, our findings also have shown disparity in two strategies which are *announcing the principal findings* at 14% and *presenting the value of their research* at 44% in the introduction section. This is far-fetched from the practice by the international computer science writers as studies found 75% (Anthony, 1999) occurrence and later 73% (Shehzad, 2012) and 65% (Aleshinskaya, 2023). The finding of this study indicates that these strategies can be considered as challenging to write.

As shown in Table One, even though the percentages are low for highly cited Malaysian writers, the percentages are higher than the percentages of practice by the Persian at 13% (Adel, Moghadam, & Amiri,2020) and Pakistani writers at 25%(Nawaz et al., 2022). Indonesian writers were reported with higher percentages at 25% (Nabila et al., 2021) and 50% (Wijaya & Bram, 2022). A more recent study (Rahayu et al., 2022) reported a lower percentage at 3.45% still, the research articles in their study were written by Indonesian vocational college students and not by the teaching researchers.

These low percentages suggest that there may be variation in research writing practices of non-native English speakers. It is essential to understand the intercultural sensitivity of the teachers (Ahmad et al., 2023). The instructors teaching Malaysian TVET writers may want to consider this underutilised strategy in their research writing practice. Highlighting the value of their research is gaining importance in a competitive attempt to get the attention and acceptance of the gatekeepers of a specific disciplinary community (Azizi et al., 2022)

Concerning the second research question, which was to examine the techniques used by highly cited research article authors to accomplish the strategies, our findings demonstrated that the writers mobilized many techniques for each strategy. Undoubtedly, the Swales model provides a ground to position the strategies whereas the findings and the interview explain why the practice is in such a way. This understanding is essential in educating TVET teachers on the research writing practice. Moreover, it is vital to educate prospective teachers with culturally responsive pedagogy (Ahmad et al., 2023). To gain insights into why the strategy was not adopted by the writers, interviews were conducted. Insights from interviews suggest that writers exhibit diverse preferences regarding the strategic placement of their main findings and the expression of the significance of their research.

Notably, some respondents expressed a preference to unveil their findings within the abstract or results section. This practice deviates from the standard international practices, which incline towards revealing the findings in the introduction section. Furthermore, these writers demonstrated a collective inclination towards postponing the discussion of their research's value to the latter part of their papers, specifically in the results and discussion section. While this departure from conventional sequencing may reflect their unique stylistic choices or considerations, it inadvertently resulted in missed opportunities (Suryani et al., 2023). Specifically, by deferring the disclosure of critical findings and delaying the discussion of the research's significance, these writers missed the chance to captivate their readers from the outset.

In essence, the observed preferences underscore a divergence from established norms in research writing. The writers could also miss the opportunity to engage and retain the interest of their audience. Despite the possibility of potentially informing future research endeavors and authors who aim to enhance the impact of their scholarly contributions, this study was derived from the Scopus database which may be limited as there are more TVET research articles available on other platforms. We recommended that a more comprehensive study which includes more diversified publications be conducted to ensure more techniques are identified and described.

Conclusion

This paper addresses the current landscape of TVET research in the context of evolving social innovations and sustainable development goals, emphasizing the growing need for active contributions from TVET research centers. Despite the increasing importance of TVET teaching, there exists a noticeable gap between the dynamic nature of education and the limited evolution of TVET research. Technological advancements and the multifaceted roles assumed by TVET teachers contribute to the scarcity of research, as teachers face time limitations and the challenges of writing in English as a second or third language. Recognizing the need for more straightforward methods for TVET research writing, this study on 62 research articles indexed in Scopus identifies 14 emerging techniques used in the introduction sections of these articles. The techniques highlighted in this study not only enhance the engagement of introductions but also aim to increase readership and citation rates. Ultimately, the research contributes to bridging the gap between TVET teaching and research, fostering a more robust and impactful TVET research community.

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Appendices
Appendix A
Techniques used to fulfill the moves and steps

Moves and steps	Realization techniques
Move 1 (Obligatory) Establishing the research territory	Offer a descriptive account about the study Present definitions associated with the study Make comments on the broader subject matter of the research.
Move 2 (Obligatory) Establishing the research niche	Utilize obligatory and/or optional steps as part of the process
Step 1A Indicating a gap (Optional) Underutilised	Acknowledge limitations within the research area. Identify problems that require resolutions. Convey suggestions from prior researchers. Build upon the works of others and providing illustrations.
Step IB Adding to what is known (Obligatory)	Present information and ideas without direct citation. Add comments and ideas to cited works. Develop ideas from cited works by incorporating additional references.
Step 2 Presenting positive justifications (optional)	Provide direct justification for the need of the study. Offer direct justification for the benefits derived from the study. Justify the study indirectly by highlighting the drawbacks of its absence. Use a combination of the techniques.
Move 3 Step 1 (Obligatory) Announcing present research descriptively and/or purposively	Announce the present research descriptively. Announce the present research purposively. Formulate research objectives. Embed the announcement within other steps in Move 3.
Step 2 (removed) Step 3 (Optional) Definitional clarifications	Provide references to support the research. Consistently define a term throughout the research article.
Step 4 (Optional) Summarizing methods	Describe the processes and procedures involved. Justify the chosen research methods
Step 5 (Obligatory) Announcing principle outcomes	Make a direct announcement of the findings. Embed the announcement within other steps of Move 3.
Step 6 Stating the value of the present research	Underutilised
Step 7 Outlining the structure of the paper	Underutilised