

THE INFLUENCE OF ONLINE LEARNING COMPONENTS ON ACADEMIC MOTIVATION IN CHINA VOCATIONAL TRAINING PROGRAMS: THE MEDIATING ROLE OF STUDENT ENGAGEMENT

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Abstract: *This research embarks on a comprehensive exploration of the complex dynamics surrounding the variables within the framework of Chinese vocational training programs. The primary focus centres on the discernment of the profound influence of online learning components, encompassing the online learning environment, resources, support, and interaction, on the academic motivation of vocational students. As China continues to invest substantially in vocational training and grapples with the evolving dynamics of online education, the implications of this research resonate significantly for educational policymakers, institutions, and practitioners. This study not only enriches the body of knowledge in vocational education but also underscores the imperative need for the astute cultivation of online learning environments that foster motivation and engagement among vocational students. It is a compelling contribution to the discourse on contemporary educational paradigms, accentuating the pivotal role of digital learning components in shaping academic motivation and student engagement.*

Keywords: *Online Learning Components; Academic Motivation; Student Engagement; Vocational Education Enhancement; Online Education*

Introduction

In contemporary educational landscapes, integrating online learning components has transformed the pedagogical paradigms, ushering in a digital era of instruction and knowledge acquisition (Miller, 2023). This transformative shift is particularly pronounced within vocational education, where the confluence of vocational training programs and online learning environments holds immense potential in shaping learners' academic motivation and engagement. In the context of China, a nation committed to enhancing its vocational education offerings and bolstering its digital infrastructure, exploring this dynamic intersection assumes paramount significance.

The crux of this study revolves around the interplay of critical variables within the ambit of Chinese vocational training programs (Miller, 2023). Central to this exploration are the salient variables of online learning components, academic motivation, and student engagement. The former, encapsulating the facets of the online learning environment, resources, support, and interaction, has become an integral component of contemporary vocational training programs in China. As education transitions from the traditional classroom setting to online platforms, unravelling the intricate dynamics governing these variables and their profound effects on academic motivation becomes imperative.

Background of Study

Vocational education in China has undergone significant transformations in recent years, emerging as a dynamic and integral component of the nation's education system (Woetzel et al., 2021). Rooted in equipping students with practical skills and knowledge to meet the demands of the labour market, vocational education plays a pivotal role in shaping the career trajectories of millions of Chinese students. This form of education, which encompasses a wide range of disciplines and industries, is delivered through a variety of channels, including secondary schools, vocational colleges, and online platforms.

One of the hallmark features of vocational education in China is its responsiveness to the evolving needs of the job market (Woetzel et al., 2021). Vocational programs are designed to align with the demands of industries and businesses, ensuring that graduates possess the skills and competencies required for gainful employment. This synergy between education and industry positions China's vocational education as a potent economic growth and development driver. It also facilitates the seamless transition of students from the classroom to the workforce, thereby reducing the skills gap that can often impede economic progress. Moreover, the government of China has consistently prioritised vocational education, channelling significant resources into the sector. This commitment is underscored by initiatives such as the "Double High Plan" (Shuang Gao) and the expansion of vocational education opportunities at various levels. These efforts not only promote the accessibility of vocational education but also elevate its status within the educational hierarchy.

The evolution and prominence of vocational education in China carry profound implications for the broader field of education, both within the nation and beyond its borders (Woetzel et al., 2021). China's robust vocational education system bolsters its economic growth by equipping a skilled workforce capable of meeting the demands of an increasingly sophisticated and diverse economy. The vocational sector is pivotal in shaping China's status as a global economic powerhouse. The emphasis on practical skills and competencies within vocational education programs is a testament to their efficacy in preparing students for the workforce. This paradigm

shift toward skills-based education challenges traditional notions of academic excellence, highlighting the importance of applied knowledge in the 21st century.

China's commitment to expanding vocational education opportunities enhances educational accessibility (Haiyan & Allan, 2021). This commitment caters to student's diverse needs and aspirations and mitigates issues related to educational inequality, particularly in rural and underserved areas. China's experiences with vocational education provide valuable insights into global education trends. As nations worldwide grapple with the changing landscape of work and learning, China's approach to vocational education is a case study in adaptability, responsiveness, and the harmonisation of education and industry. China's embrace of online learning components within vocational education reflects the growing role of technology in education. The incorporation of digital platforms and resources signifies a commitment to preparing students for a technologically driven future.

Problem Statement

The field of vocational education in China stands at a critical juncture, characterised by remarkable growth and transformation (Liu & Hardy, 2023). As the nation advances towards a knowledge-based economy and grapples with changing labour market dynamics, the role and efficacy of vocational education have assumed paramount importance. This transformation is marked by a surge in vocational institutions, an expansion of vocational program offerings, and a growing emphasis on digital technology integration (Lund & Karlsen, 2020). While these developments promise to equip students with practical skills and enhance their employability, they also present challenges that demand careful consideration.

One of the central challenges pertains to aligning vocational education with the rapidly evolving needs of industries and the labour market (Liu & Hardy, 2023). The demand for a highly adaptable and skilled workforce has surged in a dynamic economic landscape characterised by technological innovation and automation. Vocational education institutions must remain agile and responsive to these changing demands to ensure their graduates are equipped with the relevant skills and competencies employers seek.

Furthermore, vocational education in China faces the complex task of overcoming historical perceptions that have favoured academic education over vocational pathways (Liu & Hardy, 2023). Traditionally, academic education has enjoyed higher societal esteem, leading to a potential bias against vocational education. This perception challenge poses a multifaceted problem, as it impacts enrollment rates, parental preferences, and the social recognition of vocational education. Addressing this perception problem is vital for the vitality of vocational education and diversifying educational opportunities to cater to students' diverse aspirations and aptitudes.

Equity and accessibility issues also loom large within the context of China's vast educational landscape (Liu & Hardy, 2023). Rural areas, in particular, often confront barriers to offering high-quality vocational education programs, perpetuating educational disparities between urban and rural regions. Bridging this urban-rural divide and ensuring that vocational education opportunities are equally accessible to all students remains an unresolved problem that necessitates attention and strategic interventions.

The integration of online learning components within vocational education programs introduces another layer of complexity (Alam, 2021). While online platforms hold the potential to increase

flexibility, scalability, and resource accessibility, they also raise concerns related to digital literacy, equitable access to technology, and the quality of online resources. The effective incorporation of technology in vocational education programs is thus a multifaceted problem that requires examination.

Research Objectives

Research Objective 1 (RO1): To examine the impact of online learning environment on students' academic motivation of vocational training programs in China.

Research Objective 2 (RO2): To examine the influence of online learning resources on students' academic motivation of vocational training programs in China.

Research Objective 3 (RO3): To examine the effect of online learning support on students' academic motivation of vocational training programs in China.

Research Objective 4 (RO4): To examine the relationship between online learning interaction on students' academic motivation of vocational training programs in China.

Research Objective 5 (RO5): To determine the mediating effect of student engagement (mediating variable) on the relationship between online learning environment, online learning resources, online learning support, and online learning interaction and students' academic motivation of vocational training programs in China.

Research Objective 5a (RO5a): To determine the mediating effect of student engagement (mediating variable) on the relationship between online learning environment and students' academic motivation of vocational training programs in China.

Research Objective 5b (RO5b): To determine the mediating effect of student engagement (mediating variable) on the relationship between online learning resources and students' academic motivation of vocational training programs in China.

Research Objective 5c (RO5c): To determine the mediating effect of student engagement (mediating variable) on the relationship between online learning support and students' academic motivation of vocational training programs in China.

Research Objective 5d (RO5d): To determine the mediating effect of student engagement (mediating variable) on the relationship between online learning interaction and students' academic motivation of vocational training programs in China.

Research Questions

Research Question 1 (RQ1): What is the impact of the online learning environment on students' academic motivation in vocational training programs in China?

Research Question 2 (RQ2): What is the impact of online learning resources on students' academic motivation in vocational training programs in China?

Research Question 3 (RQ3): What is the impact of online learning support on students' academic motivation in vocational training programs in China?

Research Question 4 (RQ4): What is the impact of online learning interaction on students' academic motivation in vocational training programs in China?

Research Question 5 (RQ5): What is the impact of student engagement (mediating variable) on the relationship between the online learning environment, online learning resources, online learning support, online learning interaction, and students' academic motivation in vocational training programs in China?

Research Question 5a (RQ5a): What is the impact of student engagement (mediating variable) on the relationship between the online learning environment and students' academic motivation in vocational training programs in China?

Research Question 5b (RQ5b): What is the impact of student engagement (mediating variable) on the relationship between online learning resources and students' academic motivation in vocational training programs in China?

Research Question 5c (RQ5c): What is the impact of student engagement (mediating variable) on the relationship between online learning support and students' academic motivation in vocational training programs in China?

Research Question 5d (RQ5d): What is the impact of student engagement (mediating variable) on the relationship between online learning interaction and students' academic motivation in vocational training programs in China?

Hypotheses

Hypothesis 1 (H1): There is a significant relationship between the online learning environment and students' academic motivation in vocational training programs in China.

Hypothesis 2 (H2): There is a significant relationship between online learning resources and students' academic motivation in vocational training programs in China.

Hypothesis 3 (H3): There is a significant relationship between online learning support and students' academic motivation in vocational training programs in China.

Hypothesis 4 (H4): There is a significant relationship between online learning interaction and students' academic motivation in vocational training programs in China.

Hypothesis 5 (H5): There is a significant relationship between student engagement (mediating variable) and the relationship between the online learning environment, online learning resources, online learning support, online learning interaction, and students' academic motivation in vocational training programs in China.

Hypothesis 5a (H5a): There is a significant relationship between student engagement (mediating variable) and the relationship between the online learning environment and students' academic motivation in vocational training programs in China.

Hypothesis 5b (H5b): There is a significant relationship between student engagement (mediating variable) and the relationship between online learning resources and students' academic motivation in vocational training programs in China.

Hypothesis 5c (H5c): There is a significant relationship between student engagement (mediating variable) and the relationship between online learning support and students' academic motivation in vocational training programs in China.

Hypothesis 5d (H5d): There is a significant relationship between student engagement (mediating variable) and the relationship between online learning interaction and students' academic motivation in vocational training programs in China.

Significance of Study

Theoretical Significance

At a theoretical level, this study contributes to the expanding body of knowledge within the field of education, particularly in the realm of online learning, student engagement, and academic motivation (Bedenlier et al., 2020). It advances theoretical frameworks and models by investigating the complex interplay between online learning components, student engagement, and academic motivation. This investigation provides a deeper understanding of the underlying mechanisms that drive students' motivation within vocational education, shedding light on the unique dynamics of online learning environments. This study aligns with Constructivism Learning Theory, emphasising that students actively participate in their learning process, shaping their academic motivation through their interactions with online learning components. By empirically testing and validating these theoretical concepts, this research

enriches the theoretical foundation of educational psychology and instructional design, offering valuable insights for researchers, theorists, and educators.

Managerial Significance

From a managerial perspective, this study holds practical implications for vocational education institutions, administrators, and policymakers in China (Li & Pilz, 2023). As the educational landscape evolves, the findings of this research offer actionable insights for enhancing the design and implementation of online vocational training programs. These insights can inform strategic decisions to improve the online learning experience and increase students' academic motivation (Wong & Hughes, 2023). This study underscores the importance of investing in user-friendly online learning platforms, high-quality digital resources, robust support mechanisms, and interactive learning environments for vocational education administrators and institutions. Such investments can increase student engagement and motivation, ultimately driving higher retention rates and program completion. These insights are especially relevant in an era where the digitalisation of education is becoming increasingly prevalent. Moreover, policymakers in China can use the findings of this study to guide the development of policies and regulations that promote effective online vocational education. By aligning policies with the factors influencing student motivation, policymakers can foster a more supportive and conducive environment for vocational students, potentially leading to a more skilled and competitive workforce.

Pedagogical Significance

At the pedagogical level, this study has direct implications for educators and instructors involved in delivering vocational education programs online (Cattaneo et al., 2022). It highlights the role of online learning components, student engagement, and academic motivation in shaping students' learning experiences and outcomes. Educators can use these insights to adapt their teaching strategies, course designs, and support mechanisms to better align with students' needs and motivations. For instructors, the findings of this research underscore the importance of creating an interactive and engaging online learning environment. Techniques such as fostering peer collaboration, providing timely feedback, and tailoring content to students' interests can enhance student engagement and motivation. Instructors can leverage these strategies to create a more effective and enjoyable learning experience for vocational students. Additionally, the findings of this study can inform the development of professional development programs for vocational educators. These programs can equip instructors with the knowledge and skills needed to effectively navigate online learning environments and foster student engagement, ultimately improving the quality of vocational education in China.

Literature Review

Academic motivation is a central construct in the context of vocational education programs, reflecting students' enthusiasm, drive, and commitment towards their learning experiences and goals (Apriana et al., 2019). It encompasses various aspects of a student's inner drive to engage in learning, persist in their studies, and achieve academic success within vocational training programs. Academic motivation is a multidimensional concept that can influence students' behaviours, choices, and performance. In the context of vocational education in China, understanding academic motivation is particularly important due to the changing landscape of education and employment (Lei & Xie, 2023). Students pursuing vocational training often have specific career aspirations and practical goals related to their chosen field. Several key components can characterise academic motivation in this context:

Intrinsic motivation is a cornerstone of academic motivation, reflecting a student's internal drive and genuine interest in their vocational training (Chaudhuri, 2020). This form of motivation is deeply rooted in personal curiosity, the joy of learning, and a profound sense of purpose. In the context of vocational education in China, intrinsic motivation is instrumental in shaping students' attitudes and behaviours. Students who are intrinsically motivated exhibit a remarkable passion for their chosen vocational field. They approach their coursework not as a mere requirement but as an opportunity for growth and self-discovery (Payne et al., 2023). Intrinsically motivated students actively engage with course content, seeking to delve deeper into their subjects and explore the nuances of their chosen vocations. They are driven by a hunger for knowledge and an innate desire to excel in their field. Moreover, intrinsic motivation in vocational education often leads to a strong commitment to skill development. These students understand that their vocational goals require a mastery of specific competencies, and they willingly invest the time and effort needed to acquire these skills. Their intrinsic motivation fuels their persistence, even in the face of challenges, as they view obstacles as opportunities for growth.

Extrinsic motivation complements intrinsic motivation and is driven by external factors such as grades, rewards, or recognition (Malek et al., 2020). While intrinsic motivation is often regarded as more sustainable and conducive to deep learning, extrinsic motivators also have a role to play in vocational education. In China's vocational education landscape, extrinsic motivators can take various forms. For instance, students may be motivated by the prospect of obtaining industry-recognised certifications or qualifications (Lapetino, 2023). These external markers of achievement can open doors to lucrative job opportunities and career advancement, making them powerful motivators for vocational students. Additionally, extrinsic motivation can be tied to tangible rewards or incentives, such as scholarships, financial bonuses, or recognition from peers and mentors. These external incentives can provide an added layer of encouragement, especially in situations where vocational students are juggling academic pursuits with work or other responsibilities.

The online learning environment is a crucial aspect of vocational education programs, particularly in the digital age (Bonfield et al., 2020). It encompasses the digital infrastructure, platforms, and tools that students use to access their coursework. A well-designed online learning environment is characterised by factors such as ease of navigation, user-friendliness, and accessibility. Such an environment can significantly impact students' academic motivation. When the learning platform is intuitive and supportive, students are more likely to engage with the content and participate actively in their vocational training (Bradley, 2021). A learner-centered online environment can foster self-regulation and motivation, contributing to a positive learning experience. Moreover, the quality of the online learning environment is closely tied to students' satisfaction and experience in vocational training programs. Therefore, it is crucial to examine the impact of this variable on students' academic motivation within the specific context of Chinese vocational education. Understanding how the online learning environment influences motivation can inform the design and optimisation of digital learning platforms, ultimately enhancing the effectiveness of vocational education programs.

Online learning resources play a pivotal role in facilitating students' engagement and motivation within vocational training programs (Ferrer et al., 2022). These resources encompass various digital materials, content, and tools students can access to support their learning. The availability and quality of online learning resources can significantly influence students' academic motivation. When students have access to diverse and easily accessible resources,

they are more likely to explore and immerse themselves in their coursework. Furthermore, the relevance and alignment of online learning resources with vocational training goals are critical factors influencing motivation. Resources tailored to meet the specific needs of vocational students can significantly boost their motivation and commitment to their training. Therefore, understanding the impact of online learning resources on academic motivation is essential for optimising vocational education programs. Exploring how the accessibility and relevance of these resources contribute to students' motivation can guide the development of effective digital learning materials and strategies.

Online learning support encompasses various forms of assistance and guidance provided to students within the online learning components of vocational training programs (Simonson et al., 2019). It includes factors such as instructor availability, technical support, and opportunities for peer collaboration. Robust online support systems are known to positively impact students' academic motivation and satisfaction with their educational experience. In vocational training, the presence of responsive instructors who provide timely feedback and guidance can foster a sense of connection and engagement among students. Additionally, reliable technical support ensures a smooth learning experience, reducing frustration and enhancing motivation. Collaboration opportunities with peers can further stimulate interest and engagement in learning (Loang and Ahmad, 2024). Therefore, examining the effect of online learning support on academic motivation is crucial for crafting effective support mechanisms within vocational education programs. Understanding how instructor availability, technical assistance, and peer collaboration contribute to students' motivation can inform strategies to enhance the learning experience.

Online learning interaction refers to the extent and quality of interactions that students have with instructors, peers, and course content within the online learning components of vocational training programs (Mehall, 2020). Research has shown that active and meaningful interactions significantly contribute to students' academic motivation. Effective interaction with instructors can provide students with the guidance and mentorship necessary to navigate their vocational journey, leading to increased motivation and commitment. Interactions with peers can foster a sense of community and shared learning experiences, further fueling motivation. Moreover, meaningful interaction with course content, such as problem-solving activities or discussions, can enhance engagement and motivation. Given the multifaceted nature of online learning interaction, exploring its impact on student's academic motivation is crucial in vocational training programs (Loang, 2023). Understanding how instructor-student, peer-to-peer, and student-content interactions influence motivation can provide insights into designing effective online learning strategies that promote engagement and enthusiasm among vocational students.

Student engagement is a mediating variable in this study, representing students' active participation and involvement in learning. Extensive literature highlights the central role of student engagement in shaping academic motivation. Engaged students tend to exhibit higher motivation, commitment, and persistence in their studies. In vocational education, student engagement manifests through active participation in discussions, diligent completion of assignments, and interactive exploration of course materials. Research has demonstrated that fostering student engagement is pivotal for enhancing academic motivation and learning outcomes within vocational training programs. Therefore, understanding the mediating effect of student engagement on the relationship between online learning components (environment, resources, support, and interaction) and academic motivation is critical for comprehensively addressing the dynamics of vocational education in the digital age. Exploring how student

engagement acts as a bridge between the various online learning factors and motivation can provide valuable insights into strategies for promoting a vibrant and motivating learning environment within vocational training programs.

Underlying Theory: Constructivism Learning Theory

Constructivism is a foundational theory in education that posits that learners actively construct their knowledge and understanding of the world through their experiences, interactions, and reflections (YAKAR et al., 2020). At its core, constructivism challenges the traditional view of learning as a passive reception of information and instead places emphasis on learners' active involvement in the learning process. This theory asserts that individuals build mental models, or "constructs," by assimilating new information and experiences into their existing cognitive structures.

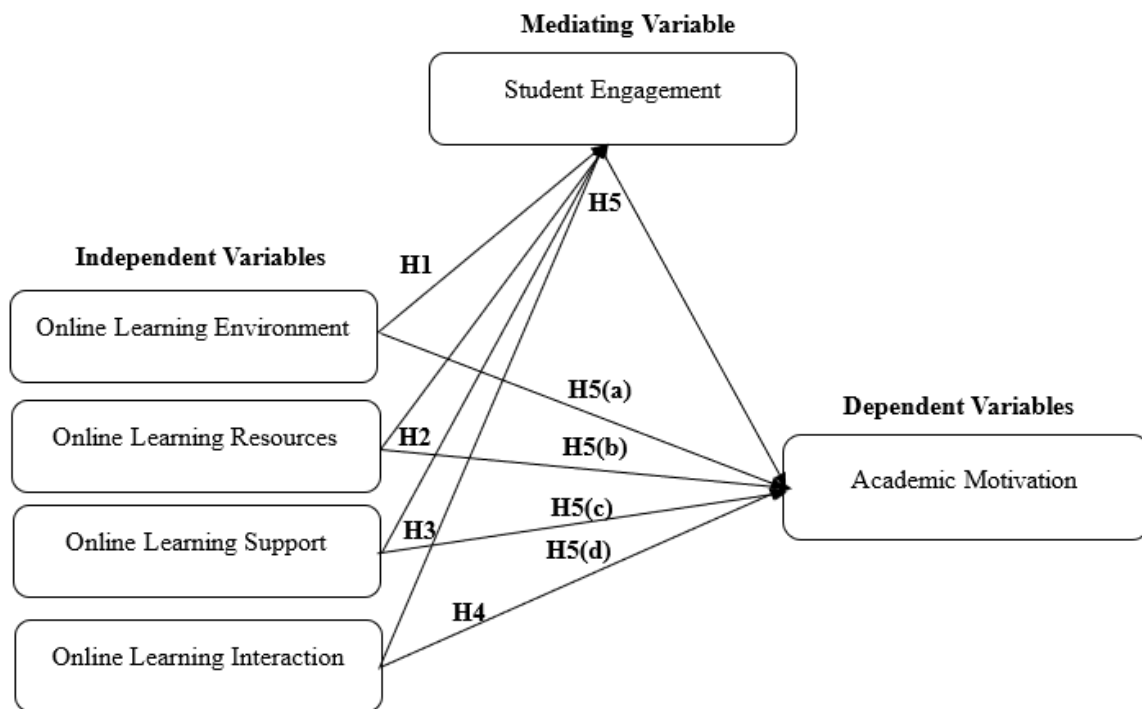
This study examines the impact of online learning components and student engagement on academic motivation in vocational education in China. Constructivism Learning Theory offers a valuable lens through which to analyse the dynamics of learning and motivation (YAKAR et al., 2020). Constructivism underscores the importance of providing learners with opportunities for active engagement and the construction of knowledge. In the realm of online learning, this theory can be applied to various components, such as the online learning environment, resources, support, and interaction. A constructivist approach to the online learning environment involves designing a platform that encourages exploration, inquiry, and problem-solving. The environment should facilitate students' active participation in their learning journey, enabling them to construct their understanding of vocational content. This learner-centered approach aligns with the principles of Constructivism, where students play an active role in shaping their knowledge.

Online learning resources, in a constructivist framework, should be designed to promote discovery and experimentation (YAKAR et al., 2020). These resources should not merely present information but should encourage students to interact with the content, ask questions, and seek answers. This approach fosters the construction of meaningful knowledge, as students actively make connections between what they already know and new information. Constructivist principles also apply to online learning support. Instructors and support staff should adopt a facilitative role, guiding students through their learning experiences rather than providing all the answers (Suresh & Loang, 2024). Support mechanisms can align with the Constructivism Learning Theory by encouraging students to reflect on their progress, set goals, and engage in self-directed learning. Interaction within online learning components is a vital element of constructivist learning. Collaborative discussions, peer interactions, and engagement with course content allow students to construct their understanding through social and cognitive processes. Instructors can facilitate these interactions to promote knowledge construction and higher-order thinking.

Constructivism is closely linked to academic motivation, emphasising the importance of intrinsic motivation driven by curiosity and the desire to understand (Chukwuedo et al., 2021). When students actively construct their knowledge, they often experience a sense of ownership and agency in their learning, which can enhance their motivation. Additionally, when online learning components align with constructivist principles, students are more likely to find their learning experiences engaging and meaningful, contributing to their academic motivation (Dong & Loang, 2024). In the context of vocational education in China, applying Constructivism Learning Theory can lead to more effective online learning environments that

foster active engagement and motivation. By designing online courses and resources that encourage students to construct their vocational knowledge and skills, vocational education programs can better prepare students for their future careers. Furthermore, educators can tap into their intrinsic motivation by considering students as active knowledge builders, promoting a deep and lasting commitment to their vocational training.

Conceptual Framework



The study identifies four key independent variables. First, the Online Learning Environment encompasses the structure and usability of the online learning platform (Chen et al., 2020). This variable delves into elements such as user-friendliness, accessibility, and navigation ease, which contribute to the digital learning infrastructure in Chinese vocational education. Second, Online Learning Resources relate to the availability and quality of digital materials and content accessible to students during their online learning experiences. The third variable, Online Learning Support, entails the level of assistance and guidance students receive within the online learning components, including factors like instructor availability, technical support, and collaborative opportunities with peers. Lastly, Online Learning Interaction examines the extent and quality of interactions students have with instructors, peers, and course content in the online learning components of vocational training programs.

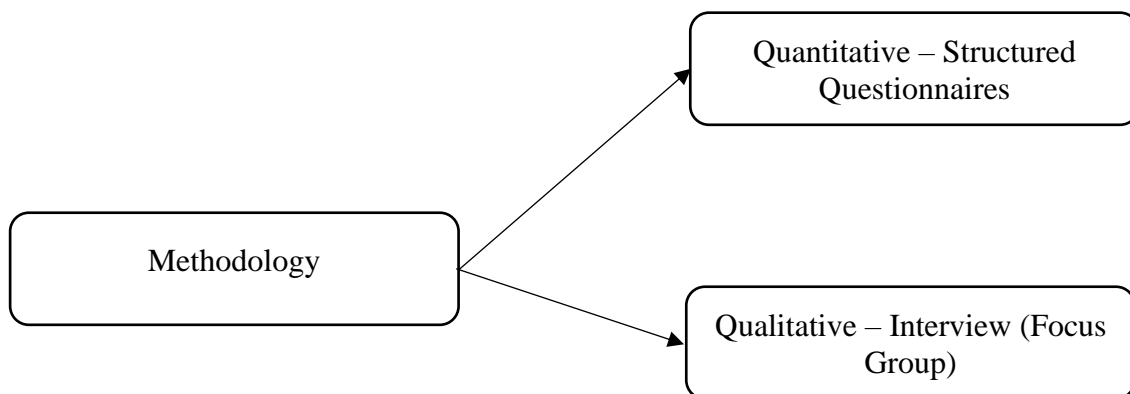
Serving as the mediating variable is Student Engagement. This represents students' active participation and involvement in both online and offline aspects of their vocational training program (Uyun et al., 2023). Student engagement encompasses a range of behaviours, including active participation in discussions, completion of assignments, and interaction with course materials. At the core of the study is the Academic Motivation of students. This variable measures the level of motivation and enthusiasm students exhibit toward their vocational training program. It encompasses their interest in learning and their aspirations to achieve their vocational goals.

The conceptual framework draws inspiration from established educational theories, most notably Constructivism Learning Theory (Bell & Bell, 2020). This theory emphasises that learners construct knowledge and understanding through experiences and interactions. Constructivism aligns with the idea that students are active participants in their learning process. They don't passively absorb knowledge but actively engage with online learning components to construct their understanding. This aligns with the research's primary focus on students' active roles in shaping their academic motivation.

Research Methodology

Mixed-Methods Research Design

The research methodology of this study adopts a mixed-methods approach, a versatile and rigorous research design that combines both quantitative and qualitative data collection and analysis techniques (Harrison et al., 2020). This comprehensive approach allows for a multifaceted exploration of the complex research questions and enriches the study's findings by triangulating data from various sources and perspectives.



Quantitative Phase

In the initial quantitative phase, the study focuses on collecting and analysing numerical data to examine the relationships between key variables (Rolfe et al., 2020). Structured questionnaires will serve as the primary data collection instruments. These instruments will be carefully designed to elicit quantitative responses from vocational students, offering insights into their perceptions of the online learning components (environment, resources, support, interaction), student engagement levels, and academic motivation. During this phase, rigorous statistical analyses will be employed to test hypotheses and scrutinise the strength and direction of relationships between the variables. Statistical methods such as correlation, regression, and mediation analysis will be applied to quantify and assess the associations. Leading statistical software tools, such as SPSS and SmartPLS 4.0, will facilitate the meticulous analysis of the quantitative data.

Qualitative Phase

Complementing the quantitative phase, the qualitative component of the study aims to capture the depth and richness of participants' experiences, perceptions, and narratives (Grady et al., 2023). Qualitative data will be gathered through semi-structured interviews with open-ended questions. These qualitative methods enable participants to articulate their thoughts, motivations, challenges, and experiences related to online learning components, student engagement, and academic motivation (Capone & Lepore, 2022). Qualitative data analysis

techniques, such as thematic, content, or narrative analysis, will be employed to explore, categorise, and interpret the qualitative data. These methods involve identifying recurring themes, patterns, and meaningful narratives within the participants' responses. Qualitative data analysis software tools, such as NVivo or ATLAS.ti, may assist in systematically organising and interpreting qualitative data.

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