Factors Affecting the Formation of Career Orientation Capacity for Secondary School Students Through Organizing Experiential Activities

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Abstract

Background: Career guidance programs in secondary education are crucial for directing students' career paths, particularly through experiential learning and related activities. Teacher competence, institutional support, student motivation, and social influence are significant factors affecting the effectiveness of these programs.

Purpose: This study aims to identify and analyze the factors influencing the organization of career guidance activities for high school students in Da Nang City, Vietnam, with an emphasis on those that enhance students' career orientation capabilities.

Methods: A quantitative survey involving 223 high school teachers across various districts in Da Nang City, Vietnam was conducted. The analysis was conducted with SPSS, employing descriptive statistics to evaluate the influence of various factors.

Results: The results indicated that the abilities of educators in the design and implementation of career guidance activities produced the greatest influence, followed by experiential activities, school resources, and organizational support. Student motivation and social influences, including familial and societal expectations, exhibited moderate effects.

Conclusion: The research underscores the necessity for adequately funded and supported career guidance programs within educational institutions to effectively improve career guidance for students. Future research may enhance these findings by examining various educational contexts and integrating qualitative data.

Keywords: career orientation capacity, secondary school teacher, experiential activity, career guidance, student motivation

1. Introduction

Enhancing career preparation among secondary school students has emerged as a critical emphasis in education, particularly as the modern economy necessitates adaptable abilities and a thorough comprehension of career paths in order to secure future success in a fluid labor market (Okolie et al., 2020; Tan et al., 2017; Yates & Bruce, 2017). Providing students with diverse career prospects necessitates both academic education and exposure to practical, real-world applications pertinent to their interests and the evolving demands of the labor market. Consequently, job-oriented activities and experiences have emerged as essential instruments in education, aiding students in cultivating a pragmatic comprehension of careers while enhancing their capacity to design, strategize, and follow significant career trajectories (Super, 1976; Swanson & Fouad, 2014). Career support programs may encompass workshops, internships, industry-specific projects, coordinated career days, and skills development sessions (Waqar, 2024). Each program seeks to furnish students with pertinent exposure and practical experience that augments their comprehension of job prospects.

In Da Nang City, where educational institutions cater to students from diverse socio-economic and cultural backgrounds, it is essential to tailor career counseling activities to address the specific requirements and resources of the students. Recognizing the various factors that affect the execution of career guidance initiatives in schools is crucial, enabling educators and administrators to create more comprehensive, accessible, and effective programs that consider

the distinct challenges and resources of each district (Council et al., 2010; Darling-Hammond, 2012; Hehir & Katzman, 2012). Educational institutions in Da Nang City are influenced by unique regional socio-economic elements that affect students' viewpoints, resource accessibility, and professional ambitions. Certain districts may possess robust industry affiliations that facilitate real-world experiences for students, whereas others may have constrained resources, necessitating innovative approaches to incorporate career-related events into the classroom. By identifying and analyzing factors such as educator capacity, institutional support, student motivation, and social influence, educators can customize their strategies to enhance student support, thereby improving the efficacy of career guidance and experiential learning in facilitating students' career development and future adaptability.

1.1 Teacher Competence

A primary aspect affecting the successful implementation of career guidance activities is teacher competence. Educators are crucial in the design, implementation, and management of effective career guidance programs that cultivate students' skills and interests, rendering subject knowledge, pedagogical proficiency, and comprehension of students' career trajectories essential for fostering successful outcomes (Bridgstock et al., 2019; Penuel et al., 2007). Proficient educators provide both knowledge and innovation to career advice, allowing them to create captivating, pertinent experiences that link classroom education to practical applications, cultivate students' essential vocational competencies, and improve students' preparedness for future pursuits. They familiarize students with crucial workplace competencies, offer insights into professional domains, and assist students in connecting academic material to employment situations, which is especially beneficial in developing nations where official career counseling may be scarce (Burns, 2020; Hilton & Pellegrino, 2012). Teachers proficient in experiential learning are more adept at employing simulations, role-plays, and project-based activities that replicate professional contexts, thereby fostering a realistic comprehension of occupational situations.

Studies indicate that educators proficient in career guidance methodologies, including recognizing career trends, catering to students' unique interests, and delivering suitable career counsel, are more adept at assisting students in exploring career possibilities and cultivating a definitive sense of career ambitions (Brown & Lent, 2012; Spanjaard et al., 2018; Zimmerman, 2023). These educators may more effectively counsel students on the skills required for diverse occupations, assisting them in delineating routes that align with their talents and aspirations. A teacher knowledgeable about the technology industry's requirements can implement programming projects or digital design workshops that enable students to visualize careers in this sector. Teachers possessing a profound comprehension of the healthcare sector can organize field visits to hospitals or clinics, thereby familiarizing pupils with the medical profession and correlating these experiences with pertinent courses in biology or chemistry. The capacity to create impactful, real-world experiences has been demonstrated to markedly improve students' capacity to make educated decisions regarding their futures, as well-prepared educators can directly affect students' involvement, curiosity, and confidence in exploring prospective career trajectories. Moreover, enhancing teacher proficiency in career and experiential learning initiatives has demonstrated significant potential for schools to augment the efficacy of their programs. Proficient educators not only foster the growth of individual learners but also elevate the entire quality of vocational programs in educational institutions, establishing a sustainable framework that benefits both current and future educators and students (Glavič, 2020; Maki, 2023; Marope et al., 2015). Consequently, investing in teacher training for career and experiential education is crucial for schools, as it directly improves their ability to offer comprehensive, pertinent, and dynamic career-focused learning experiences that equip students for future challenges.

1.2 Institutional Support

Institutional support significantly impacts the efficacy of career guidance programs in educational settings. This assistance encompasses the policies, resources, and facilities that educational institutions allocate to career guidance programs, which directly influence the quality and accessibility of these initiatives. Educational institutions that prioritize career guidance by implementing specialized resources and policies will cultivate an environment advantageous to both educators and students, promoting structured and adequately financed initiatives that improve students' preparedness for the future (Adams, 2002; Joshi & Verspoor, 2012; Radó, 2021). Supportive policies may involve the creation of specialist roles, such as career advisors or guidance coordinators, whose main objective is to incorporate career guidance programs into the school's curriculum and operations. These jobs enable schools to offer students continuous, targeted support instead of sporadic, disconnected events, thereby enhancing involvement in career exploration and skills development. Institutions that invest in contemporary career facilities, training tools, and seminars establish a robust foundation for their career programs, enabling students to gain pertinent skills and knowledge (Lynch, 2000; Ochieng & Ngware, 2022; Wang, 2012). Educational institutions furnished with contemporary computer laboratories, scientific apparatus, or access to virtual career resources facilitate students'

participation in comprehensive career activities that correspond with prevailing industry standards. These facilities offer students the opportunity to develop the skills required for their future careers, enhancing their educational experience and bolstering their confidence in navigating the challenges of the contemporary industry. Moreover, the availability of these materials guarantees that vocational training transcends theoretical discussions to encompass actual applications vital for professional preparedness.

Financial resources constitute a crucial aspect of institutional support; nevertheless, schools frequently necessitate administrative backing to proficiently develop and execute significant career programs (Bruns et al., 2011; Tinto, 2012). Administrative support encompasses the formation of strategic partnerships with local businesses, industries, or organizations to enhance student access to internships, work shadowing opportunities, or guest lectures from professionals across diverse fields. These links enable schools to broaden their career programs and promote direct interaction between students and professionals, and so reveal job prospects that might otherwise appear distant or inaccessible. Moreover, administrative assistance may encompass designating time in the academic calendar for career-focused activities, considering these programs as essential components of a student's education rather than supplementary (Hineman, 2021; Johnson, 2010). This methodology positions career guidance as a vital, continuous element of a student's educational experience, rather than a sporadic, ancillary focus.

Moreover, institutional backing for professional development guarantees that educators and advisors are adequately prepared to implement effective career advising programs. Institutions that emphasize thorough training for educators, equipping them with contemporary career guidance tools and resources, will improve the overall efficacy of their programs. Professional development enables instructors to remain informed about industry advancements, enhance successful pedagogical strategies, and create interesting career advising initiatives that address the varied requirements of students (Bruni-Bossio & Delbaere, 2021; Council et al., 2007; Ramírez-Montoya et al., 2021). An educator skilled in contemporary career guidance methods can incorporate digital tools or data-driven approaches into their curriculum, enhancing career exploration to reflect current workplace technologies. By providing teacher training, schools improve the continuous advancement of their career counseling programs, aligning them more closely with student interests and the evolving job market demands.

Institutional support, encompassing resources, policies, and administrative assistance, is essential for the efficacy of career counseling initiatives, as it furnishes the necessary infrastructure, expertise, and collaboration for students to meaningfully and realistically explore career paths. When educational institutions commit to cultivating a supportive environment for career guidance, they not only assist students in making informed career choices but also contribute to the development of a future-ready workforce equipped with the requisite skills and experiences for success (Astin et al., 2010; Bland et al., 2009).

1.3 Student Motivation

Student motivation is a crucial factor in the efficacy of career guidance programs, directly affecting students' engagement in experiential learning opportunities and their subsequent acquisition of career-related skills. Motivated students typically participate in these activities with a positive attitude, utilizing the resources and assistance available to them (Filgona et al., 2020; Jang et al., 2010; Pintrich & Schragben, 2012). This motivation is frequently shaped by internal factors, including personal interests, individual professional aspirations, and expectations of future employment prospects, which collectively cultivate students' enthusiasm for career-oriented education. Students with a pronounced interest in particular vocations are more inclined to engage in pertinent guidance activities, such as job shadowing, internships, or skills workshops, as they view these activities as directly advantageous to their future ambitions. Moreover, motivation may stem from students' awareness of potential employment outcomes or industry trends; when they determine that specific fields are growing and present appealing career opportunities, their engagement in associated mentoring activities is likely to rise (Reinhold et al., 2018; Smit et al., 2021; Wang, 2013).

Studies have consistently shown that students who view career guidance activities as advantageous and pertinent to their personal objectives are more inclined to invest time and effort in actively exploring potential career paths (Keshf & Khanum, 2021; Wong et al., 2023). They are becoming more open to self-reflection, career exploration, and skill advancement, acknowledging the enduring advantages these experiences contribute to their comprehensive professional growth (Hall & Kelly, 2021; Reichert, 2016). A student with an interest in technology may exhibit considerable enthusiasm and commitment by engaging in programming workshops, robotics clubs, or technology industry conferences, perceiving these endeavors as a route to a successful career in software development or engineering. This degree of engagement enables the attainment of practical skills and the formation of a robust foundation that can support further specialized education or training, enhancing their readiness for real-world challenges. Driven students often exceed the fundamental requirements of career counseling activities by seeking

supplementary resources, establishing precise career objectives, or actively interacting with professionals in their area of interest (Kochhar, 1984; Wong et al., 2023).

Comprehending and fostering student motivation is essential for educators and school administrators aiming to execute effective career counseling programs. When educators recognize the significance of motivation, they can customize programs to better connect with students' interests, producing guidance on careers more pertinent, individualized, and congruent with each student's future aspirations (Davis & McPartland, 2012; Lynch, 2000; Tigchelaar et al., 2010). Programs that integrate students' career interests and future aspirations are more likely to captivate them, sustain engagement, and cultivate positive attitudes toward career preparation. Through the implementation of interest assessments or career inventories, educators can ascertain students' passions and utilize this information to develop tailored activities, including company visits, job fairs, or interactive projects, that correspond with these interests (Reis & Renzulli, 2023). Educational institutions might involve students in activities designed to promote reflection on their short-term and long-term career objectives, so linking their present endeavors to anticipated future accomplishments.

Moreover, fostering a motivating environment necessitates the establishment of a supportive educational culture that encourages and honors career exploration. Educational institutions can accomplish this by frequently acknowledging students' accomplishments in career-focused activities, displaying student projects, and inviting guest speakers from many industries to inspire students (Johnson, 2010). Students exhibit enthusiasm when they witness their peers succeeding in career-focused programs (Roth, 2023). Ultimately, motivated students are more inclined to gain from career guidance initiatives and are better prepared to confront future academic and professional problems with a definitive sense of purpose and direction (Kochhar, 1984). Institutions that emphasize motivation in their career guidance frameworks enable students to assume control of their professional paths, equipping them with the curiosity, resolve, and skills necessary for a successful transition into the labor market.

1.4 Social Factor

Social factors profoundly impact students' job aspirations and participation in career guidance activities, including familial expectations, peer judgments, and prevailing cultural trends that shape career paths (Hoang, 2020). Families profoundly affect students' perceptions of professional options, as parents and relatives frequently advocate for specific disciplines that correspond with their values, desires for stability, or cultural conventions (Brown, 2013). Students from families with a robust business or medical background may be more predisposed to pursue these disciplines due to ongoing familial encouragement, exposure to the sector, and the perceived prestige or stability linked to such professions. Familial expectations can shape specific educational pathways, with certain families prioritizing professions necessitating advanced degrees, such as law or engineering, while others may focus on practical skills, thereby affecting students' career journeys and involvement in specialized mentoring programs (Gary, 2011; Sanford, 2024).

Alongside family, peers substantially impact students' occupations and involvement in career-oriented activities. Adolescents frequently pursue validation and guidance from peers, resulting in trends toward specific vocations, particularly those regarded as popular, prestigious, or achievable within their social circles (Cotterell, 2013; Damon, 2009). Peer influence can either encourage or deter students from pursuing specific jobs, contingent upon the perceptions of these careers within their social networks. For instance, if a peer group exhibits a pronounced interest in technology or entrepreneurship, individual members are more inclined to engage in pertinent extracurricular activities, courses, or internships. If career guidance activities are regarded as irrelevant or disdained by peer groups, students may opt out of participation, irrespective of their personal interests or benefits (Cox & Sagor, 2013; Shirk, 2020). Consequently, peer dynamics within educational institutions can profoundly influence the career trajectories individuals are inclined to consider and eventually follow.

Moreover, societal trends and cultural norms significantly shape students' employment preferences by portraying some professions as more appealing, esteemed, or lucrative (Baker, 2012). In a time characterized by digital innovation, environmental consciousness, and healthcare as significant worldwide objectives, students are frequently urged to engage in academic disciplines that correspond with these trends, such as information technology, sustainability, and biomedical sciences. Societal expectations may be shaped by media, labor market requirements, and economic conditions that render specific career trajectories especially appealing or viable (Watts, 1996). In developing nations, burgeoning sectors like technology, finance, and healthcare frequently captivate student interest because of their association with economic expansion, employment security, and opportunities for advancement (Duderstadt, 2009). These advancements may motivate students to participate in career counseling initiatives that correspond with market-oriented professions, thereby neglecting conventional or underrepresented career trajectories that could be equally fulfilling although less socially acknowledged.

Educational institutions that comprehend and handle these social dynamics might enhance the efficacy of career counseling programs by customizing their initiatives to acknowledge these external elements (Eseadi, 2023; Hassan et al., 2022; Herr, 2008). By involving parents in career counseling initiatives, such as parent-student workshops or family-centric discussions, schools can foster a supportive atmosphere that harmonizes familial expectations with children's personal interests. Moreover, visiting alumni or community leaders from diverse professions can assist students in recognizing the extensive array of choices accessible to them, thereby challenging and broadening both their peers' and the public's conventional conceptions of occupations. Educators can improve student support by offering objective, comprehensive information about various career routes, hence reducing restrictive external influences through an expanded array of employment options (Lent, 2020; Sublett & Tovar, 2021). Educational institutions can assist students in choosing professional options that match with their personal aspirations and practical considerations by considering pressures from family, friends, and society, so fostering educated and confident decision-making among diverse social expectations.

This study investigates the effects of teacher competencies, organizational support, student motivation, and social influences on career guidance activities in secondary schools in Da Nang, aiming to elucidate their combined contribution to effective career guidance programs. Teacher competencies, encompassing professional skills in career guidance and experiential learning, are crucial as educators not only convey knowledge but also actively inspire and direct students in exploring potential career paths (Chan, 2023; Stemberger, 2020). Organizational support in educational institutions, encompassing allocated resources, facilities, and policies, enhances the accessibility and structure of career guidance activities, thereby promoting an environment where career exploration is integral to students' educational experiences (Ndung'u, 2008; Wong & Yuen, 2019). Student motivation significantly influences participation in career guidance activities, with intrinsically motivated individuals engaging more thoroughly and reaping greater benefits, particularly when the activities correspond with their personal aspirations (Bempechat & Shernoff, 2012). Social influences, including family expectations, peer pressure, and societal trends, significantly affect students' career decisions by either facilitating or obstructing the exploration of particular fields. Schools that take into account these external factors can offer students thorough guidance that expands their career opportunities (Brown, 2013; Eccles, 2004). Analyzing these factors enables educational institutions to enhance career guidance by implementing targeted teacher training, optimizing resource distribution, and developing strategies that address social influences, ultimately providing students with the necessary skills, self-awareness, and knowledge for informed career choices.

2. Methods

2.1 Participants

This study involved a survey of 223 secondary school teachers in Da Nang City, Vietnam to evaluate their perceptions regarding the factors influencing career orientation competencies in students. The recruitment of teachers utilized a stratified random sampling method, ensuring representation from each district in Da Nang City and reflecting a range of socioeconomic and educational backgrounds. The stratified sampling method sought to gather a comprehensive perspective from teachers throughout Da Nang City, Vietnam ensuring that the results would accurately represent variations in policy implementation, resource distribution, and the distinct challenges encountered in various regions. The study gathered responses from various educational contexts, offering a detailed perspective on the implementation of experiential and career orientation activities across different districts. This contributes to a broader understanding of the factors influencing career orientation competencies in high schools in Da Nang. The sample included six schools chosen to represent regional variations in educational practices and resources. Luong The Vinh Secondary School has been chosen to represent Lien Chieu District, which is characterized by its industrial parks and increasing population density. Ly Thuong Kiet Secondary School, located in Hai Chau District, is situated within the central administrative and commercial zone, which is characterized by a significant density of educational institutions. Huynh Thuc Khang Secondary School was chosen from Thanh Khe District, an area characterized by high urbanization and a vibrant commercial sector. Le Loi Secondary School, located in Ngu Hanh Son District, offers insights from a region recognized for its tourism and developing infrastructure. Tran Quang Khai Secondary School, located in Hoa Vang District, exemplifies a rural educational context within Da Nang, highlighting disparities in educational resources. Le Do Secondary School, located in Son Tra District, exemplifies the area's coastal and suburban features, offering insights from a mixed urban-rural demographic.

2.2 Measurement

This study assessed the factors that affect the quality and effectiveness of organizing career guidance experiences for

secondary school students in developing career orientation competencies. A survey questionnaire was developed utilizing a 5-point Likert scale to evaluate the perceived influence of each factor, with response options from 1 ("no affect") to 5 ("very affect"). The Likert scale facilitates a quantitative evaluation of educators' perspectives regarding the significance of various factors in enhancing students' foreign language skills via career-oriented practical experiences. The primary factors evaluated are teacher competence, organizational support, student motivation, and social influences, which collectively delineate the extent and impact of each element on the organization and efficacy of career guidance experiences aimed at developing career orientation competencies in secondary school students.

2.3 Procedures

The research was carried out using a systematic approach aimed at examining the factors that affect the organization of career orientation development activities for secondary school students in Da Nang City, Vietnam. The initial phase entailed the creation of a theoretically grounded toolkit designed to identify the principal factors affecting career guidance and experiential learning activities. The measurement included a detailed questionnaire aimed at secondary school teachers, focusing on factors such as teacher preparation, institutional support, student motivation, and external social influences affecting the organization of career guidance activities in educational settings.

Following the development of the questionnaire, it was disseminated to consenting participants, specifically secondary school teachers from various districts in Da Nang City, Vietnam. A stratified sampling method was employed to guarantee representation across various school districts and settings within the city, thereby capturing diverse perspectives. This method enabled the study to capture the variety of educational contexts, resources, and district-specific factors that could affect career guidance activities. Educators from various schools in multiple districts contributed data that represented the city's diverse educational environments.

Upon completion and collection of the questionnaires, the data were input into SPSS software for subsequent analysis. A data cleaning process was implemented to ensure the accuracy and reliability of information for analysis. Statistical analyses, both descriptive and inferential, were employed to examine the data, enabling the study to assess the significance of various factors and their impact on the organization of career guidance activities. Descriptive statistics summarized participants' responses, whereas inferential statistics examined the relationships among factors.

The findings were compiled into a report that outlines the current state of career guidance activities in Da Nang City high schools, emphasizing the most influential factors. This report examines methods to improve experiential learning and career guidance activities to more effectively support students' career development. This study provides practical recommendations for schools and educators to enhance their career guidance education by leveraging identified strengths and addressing challenges.

2.4 Data Analysis

The survey data were processed using SPSS version 22.0 software. A comprehensive cleaning process was implemented post data entry to ensure accuracy and reliability. The analysis incorporated descriptive and inferential statistical methods. Descriptive statistical analysis was employed to summarize and interpret the fundamental characteristics of the data. This analysis utilized key indicators such as frequency, mean (M), and standard deviation (SD) to offer comprehensive insights into the distribution and overall trend of responses concerning factors that influence the development of career orientation competencies.

3. Results

The research analyzed six primary factors affecting the development of career orientation capacity via the organization of experiential activities, each exhibiting varying degrees of influence. The findings indicated that secondary school teachers' proficiency in designing and organizing experiential and career guidance activities received the highest rating (M = 4.42, SD = 0.639). Teachers assigned the highest rating to this factor, recognizing that students' career orientation largely hinges on teachers' capacity to organize and design programs that facilitate optimal experiences, enabling students to make informed decisions regarding their future careers.

Experiential and career guidance activities in schools significantly impacted outcomes (M = 4.25, SD = 1.020). Many educators contend that schools presently fail to recognize and prioritize the significance of career guidance and experiential career activities, resulting in insufficient investment and attention to this matter. The organization of teachers for participation in activities is conducted superficially and lacks effectiveness. This results in teachers assigning a high rating to this factor, necessitating increased awareness among school administrators and teachers regarding the significance and function of experiential and career guidance activities. The school's policies, facilities, and attention to organizing these activities are highly valued (M = 4.12, SD = 0.701), highlighting the significance of

organizational support in enhancing career orientation. In the absence of the school's focus and suitable support policies for teachers in organizing activities, the motivation of teachers will not be enhanced. The abilities, needs, interests, and motivations of students in career guidance activities and experiences were deemed significant, M = 3.78, SD = 0.850. This factor ranked fourth in significance compared to school policies and teachers' capacity. Teachers acknowledged that while their organizational capacity plays a role in inspiring students' career orientation, the ultimate influence rests on the students' individual needs, interests, and motivations.

Conversely, social influences, including career trends, exhibited a moderate effect on career orientation (M = 3.59, SD = 0.985). The impact of family and friends was found to be moderate (M = 3.48, SD = 0.925). The findings indicate that while external social factors are pertinent, they may not hold as much significance as the immediate educational environment and activities offered by schools.

The results demonstrate that the primary factors influencing the development of career orientation competencies are significantly associated with the educational context, particularly the role of teachers and the emphasis schools place on career orientation.

Factors	Levels of affecting	
	Mean (M)	Standard Deviation (SD)
Students' abilities, needs, interests, and motivations in experiential and career guidance activities at school		0.850
The role and position of experiential activities and career guidance in schools and in the formation of career orientation capacity		1.020
Ability to design and organize experiential and career guidance activities to form career orientation capacity of secondary school teachers		0.639
The school's policies, facilities and attention to organizing experiential activities, career guidance and forming career orientation capacity for secondary school students	4.12	0.701
Social influence, career trends in society	3.59	0.985
The impact of other factors, such as family and friends of students, in the process of forming career orientation capacity	3.48	0.925

4. Discussion

This research investigates secondary school teachers' views on the factors affecting career orientation competencies in secondary school students in Da Nang. The findings illuminate the complex nature of career orientation, emphasizing the significance of teacher qualifications and the efficacy of experiential learning activities, and the critical role of organizational support within educational institutions. The findings highlight the significance of student characteristics, particularly interests and motivations, while also recognizing the comparatively moderate impact of social factors, such as family and peer motivation. This discussion synthesizes various factors to elucidate how educational activities and external influences converge to shape students' future careers, offering valuable insights for policymakers, educators, and stakeholders engaged in improving career orientation initiatives.

This study's findings demonstrate that teachers' proficiency in designing and executing career guidance activities significantly influences the development of career-oriented competencies in secondary school students. The competence of teachers in experiential and career guidance activities is crucial for engaging students and enhancing their understanding of potential career paths. Educators with specialized training will offer insights aligned with students' individual interests and future goals, thereby increasing the relevance and significance of educational experiences (Anderson & Stillman, 2013; Ferris, 2014). Effective educators can customize their methods for each student, considering varying abilities and goals, which leads to enhanced and individualized career guidance experiences. The integration of theoretical knowledge with practical application is crucial, as it aids students in visualizing their career paths and comprehending the necessary skills and competencies for success in their selected professions (Barabasch & Cattaneo, 2019; Hilton & Pellegrino, 2012; Lynch, 2000). The alignment of career guidance with students' aspirations enhances engagement and motivation, resulting in higher participation in related activities.

Research indicates that adequately trained educators significantly enhance student engagement in career guidance programs, underscoring the necessity of ongoing professional development in this field (Rodriquez, 2018; Wyszynska Johansson, 2018). Continuing education enables educators to remain informed about current industry trends, pedagogical methods, and effective mentoring strategies, which are crucial for delivering high-quality career guidance. As the career landscape evolves due to technological advancements and shifts in the job market, it is crucial for educators to modify their methods to adequately prepare students for future challenges. Enhancing teacher capacity via professional development programs will improve the quality of career guidance, enabling students to navigate their future career paths with confidence and clarity (Ferris, 2014). This dedication to teacher education enhances individual student outcomes and supports the broader objective of cultivating a skilled and adaptable workforce that meets the requirements of the contemporary labor market.

Career guidance and experiential learning activities significantly benefit students, underscoring the crucial role of practical, hands-on experiences in shaping their career orientation and future readiness. These activities extend beyond traditional classroom instruction by engaging students in real-world scenarios, facilitating the application of theoretical knowledge in practical contexts. Schools offer significant opportunities for students to engage with diverse disciplines, comprehend industry standards, and cultivate essential skills necessary for future workplace success through activities including internships, seminars, field trips, and collaborative projects (Leach, 2016; Siskin, 2014; Styslinger et al., 2015). Internships provide students with exposure to the daily realities of particular professions, aid in the establishment of professional networks, and offer insights that may influence their career choices. Workshops focusing on resume writing, interview techniques, and soft skills training equip students with vital tools for successful job market preparation and future career orientation. The findings align with prior research emphasizing the significance of experiential learning in fostering personal and professional development, enabling students to gain a clearer understanding of their career interests and make more informed future decisions (Kolb, 2014; Webster-Wright, 2009). Engagement in experiential learning fosters critical thinking, adaptability, and problem-solving abilities, which are increasingly sought after by employers in the contemporary job market. Involving students in practical experiences enhances their confidence and instills a sense of ownership over their career trajectories, both of which are crucial for sustained success. The effectiveness of these activities highlights the necessity for schools to invest in structured experiential career programs that are accessible to all students, thereby ensuring that every student can benefit from these valuable experiences (Darling-Hammond, 2012; Wurdinger & Carlson, 2009). Furthermore, educational institutions can improve these programs through collaborations with local businesses and community organizations, thus creating a wider network of support and resources that can enhance the learning experience. Emphasizing career guidance and experiential activities will improve students' educational experiences and lay the groundwork for future career success and overall well-being.

Institutional support, defined by obvious school policies, sufficient resources, and suitable facilities, is essential for the effectiveness of career programs, promoting significant student engagement in the exploration of their career paths. Schools that allocate resources and implement policies for career infrastructure create a foundation for structured and meaningful career exploration experiences (Lynch, 2000). Support from school leadership is crucial as it guarantees that career activities obtain the necessary attention and funding for success. Schools that offer designated areas for career counseling, coupled with access to technology and resources, foster an environment that supports informed exploration of career options for students. Additionally, school policies that encourage teacher involvement in career initiatives, such as targeted training and development programs, ensure that educators are adequately prepared to assist students in their career trajectories (DeMonte, 2013; Keele et al., 2020; Wong et al., 2021). Administrative and financial support is crucial, as it significantly influences the scope and quality of career programs provided. Research indicates that without substantial institutional support, even effectively designed career programs may fail to attain the intended outcomes, underscoring the necessity for meticulous planning and resource allocation by school administrators (Moyo, 2018). The contemporary educational landscape, characterized by heightened accountability for student performance, underscores the necessity for sustainable policies that prioritize long-term career readiness. This responsibility encompasses budgeting for materials and technology, alongside fostering community partnerships to enhance the range of career exploration activities available to students. Schools collaborate with local businesses, organizations, and industry professionals to offer students practical exposure to diverse career paths, thereby enriching their educational programs with real-world insights and experiences.

Student features, including personal abilities, interests, and motivations, significantly influence participation and success in career guidance programs, thereby affecting long-term career orientation. Intrinsic motivation in students, along with a clear connection between their skills and career exploration opportunities, significantly enhances their participation levels, thereby improving the effectiveness of these programs (Domene et al., 2011; Fan & Williams,

2010; Ryan & Deci, 2020). This intrinsic motivation promotes ownership and enthusiasm, leading students to engage actively and gain significant insights. Students who recognize their significance in career-related activities are likely to establish meaningful goals, persist in the face of challenges, and develop self-directed learning habits, which are crucial for long-term career success. A student with an interest in technology is more inclined to engage in career activities, such as coding workshops or technology internships, thereby benefiting from experiences aligned with their skills and aspirations. Motivation plays a crucial role in fostering resilience, which is essential for navigating challenges in a career trajectory. Motivated students are more adept at confronting challenges by adopting a growth mindset, allowing them to learn from failures instead of succumbing to discouragement. This trait is crucial in the current job market, which emphasizes adaptability and a commitment to ongoing learning. Studies indicate that students who recognize personal relevance in their career orientation tend to pursue careers that correspond with their interests and values, frequently resulting in enhanced career satisfaction and success (Lee et al., 2022; Reinhold et al., 2018). Moreover, comprehending the varied abilities and interests of students is essential for educators and administrators in the development of career pathways programs. A standardized approach may not resonate with students whose unique objectives or abilities are inadequately represented in traditional programs. Adopting a student-centered approach that acknowledges individual differences enables educational institutions to create career pathways programs that cater to diverse student interests, encompassing the arts, humanities, and STEM fields (Daily & Eugene, 2013; Ferris, 2014). This focused strategy enhances student engagement and fosters confidence, promoting the exploration of previously overlooked career options. Recognizing and addressing these distinct student factors facilitates active and motivated participation in career development. Educational institutions that cultivate an environment emphasizing individual interests and intrinsic motivation will enable students to make informed career decisions, thereby establishing a foundation for a passionate, skilled, and adaptable workforce capable of meeting the demands of the global economy (Wang, 2012).

Social influences, including societal trends, family expectations, and peer perspectives, establish a complex context for students' career orientation, affecting their decision-making processes (Akosah-Twumasi et al., 2018; Lent, 2020). While external factors may not directly dictate career trajectories as much as formal educational guidance, they do affect students' perceptions and priorities concerning particular professions. Family preferences for traditional or high-status careers can subtly influence students to follow paths that may not correspond with their interests, thereby restricting their exploration (Binder et al., 2016; Brown, 2013). Conversely, environments that offer social support and emphasize diverse career options foster an open-minded perspective, enabling students to follow non-conformist trajectories that correspond with their individual objectives. Societal trends, such as the increasing demand for careers in technology and healthcare, significantly influence students' decisions, often directing them toward high-demand fields that may not completely correspond with their strengths. Media and economic factors shape perceptions of career viability and prestige, frequently affecting decisions at a subconscious level. Schools can mitigate external pressures through the provision of comprehensive and diverse career guidance, thereby enhancing students' awareness of available career options (Brown & Lent, 2012; Farao & du Plessis, 2024). Educational institutions can offer a comprehensive view of career opportunities via counseling and specialized activities, enabling students to make informed and autonomous decisions aligned with their skills and interests, free from societal or familial pressures. Educational institutions enhance the alignment of future workforces with individual strengths and passions by promoting independent decision-making, enabling students to pursue careers that reflect personal goals rather than merely conforming to external expectations.

The outcomes of this investigation offer significant implications for educational institutions, policymakers, and families in improving career orientation competencies among secondary school students. The findings underscore the necessity for educational institutions to implement structured, experiential career guidance programs that are customized to align with students' specific interests, motivations, and abilities. Career exploration initiatives, when adequately resourced, provide students with essential skills, knowledge, and confidence for informed career decision-making. Policy makers must establish frameworks that facilitate equitable access to career resources for all students, irrespective of socioeconomic or geographic barriers. Collaborations among educational institutions, local industries, and community organizations will improve career guidance programs by offering students practical experience in diverse career fields. Examining the moderating role of social factors, including family expectations, highlights the importance of transparent communication about career aspirations. This approach enables students to follow a trajectory aligned with their individual objectives rather than merely adhering to societal expectations. These implications foster the creation of a more adaptive and well-prepared future workforce aligned with students' individual talents and interests.

This study offers valuable insights; however, it is important to acknowledge its limitations. The sample size was

confined to secondary schools in Da Nang City, which may restrict the generalizability of the findings to other regions or educational contexts with varying socioeconomic and cultural characteristics. Self-reported data from teachers may be subject to bias, as responses can be affected by personal perceptions or the desire to conform to social expectations. While Likert scales offer useful quantitative data, they may inadequately reflect the complexity of teachers' perspectives regarding the effectiveness of career guidance and the particular needs of their students. Future research may address these limitations by incorporating a diverse sample from various regions, employing longitudinal methods to evaluate changes over time, and utilizing mixed methods—such as interviews or focus groups—to obtain deeper qualitative insights into the effects of career guidance programs on students' career orientations.

5. Conclusion

This study emphasizes the significant influence of structured, experiential, and career guidance programs on the cultivation of career-oriented skills among secondary school students. Identified significant influences include teacher competence, institutional support, and student motivation, whereas social factors, such as family expectations, exhibit a moderate impact. The results demonstrate that educational institutions equipped with targeted resources and policies for career guidance are more successful in fostering comprehensive career awareness among students. Customizing career activities to align with students' distinct interests and skills allows educational institutions to equip students to make informed and autonomous career choices. Policymakers and educators must create supportive frameworks and partnerships to improve career exposure. This study offers significant insights. Future research should broaden its scope to encompass diverse regions and integrate qualitative data to enhance understanding. These initiatives foster a workforce that is both prepared and adaptable, aligning with individual strengths and aspirations.

References

- Adams, D. K. (2002). *Education and national development: Priorities, policies, and planning* (Vol. 1). Asian Development Bank Manila Philippine.
- Akosah-Twumasi, P., Emeto, T. I., Lindsay, D., Tsey, K., & Malau-Aduli, B. S. (2018). A systematic review of factors that influence youths career choices—the role of culture. *Frontiers in Education*. https://doi.org/10.3389/feduc.2018.00058
- Anderson, L. M., & Stillman, J. A. (2013). Student teaching's contribution to preservice teacher development: A review of research focused on the preparation of teachers for urban and high-needs contexts. *Review of Educational Research*, 83(1), 3-69. https://doi.org/10.3102/0034654312468619
- Astin, A. W., Astin, H. S., & Lindholm, J. A. (2010). *Cultivating the spirit: How college can enhance students' inner lives*. John Wiley & Sons.
- Baker, M. (2012). Academic careers and the gender gap. UBC Press.
- Barabasch, A., & Cattaneo, A. (2019). Digital education in career and technical education and the support of creative professional development. *The Wiley Handbook of Global Workplace Learning*, 241-261. https://doi.org/10.1002/9781119227793.ch14
- Bempechat, J., & Shernoff, D. J. (2012). Parental influences on achievement motivation and student engagement. In Handbook of research on student engagement (pp. 315-342). Springer. https://doi.org/10.1007/978-1-4614-2018-7_15
- Binder, A. J., Davis, D. B., & Bloom, N. (2016). Career funneling: How elite students learn to define and desire "prestigious" jobs. *Sociology of Education*, 89(1), 20-39. https://doi.org/10.1177/0038040715610883
- Bland, C. J., Taylor, A. L., Shollen, S. L., Weber-Main, A. M., & Mulcahy, P. A. (2009). Faculty success through mentoring: A guide for mentors, mentees, and leaders. R&L Education.
- Bridgstock, R., Grant-Iramu, M., & McAlpine, A. (2019). Integrating career development learning into the curriculum: Collaboration with the careers service for employability. *Journal of Teaching and Learning for Graduate Employability*, 10(1), 56-72.
- Brown, J. R. (2013). Best Practices for Student Success in an Alternative Middle School Setting from a Student's Perspective. Northwest Nazarene University.
- Brown, S. D., & Lent, R. W. (2012). *Career development and counseling: Putting theory and research to work.* John Wiley & Sons.

- Bruni-Bossio, V., & Delbaere, M. (2021). Not everything important is taught in the classroom: Using cocurricular professional development workshops to enhance student careers. *Journal of Management Education*, 45(2), 265-292. https://doi.org/10.1177/1052562920929060
- Bruns, B., Filmer, D., & Patrinos, H. A. (2011). *Making schools work: New evidence on accountability reforms*. World Bank Publications.
- Burns, R. (2020). Adult Learner at Work: The challenges of lifelong education in the new millenium. Routledge.
- Chan, C. K. Y. (2023). Assessment for experiential learning. Taylor & Francis.
- Cotterell, J. (2013). Social networks in youth and adolescence. Routledge. https://doi.org/10.4324/9780203007488
- Council, N. R., Behavioral, D. O., Education, C. f., Council, T. A., & Teachers, C. o. E. P. D. f. (2007). Enhancing professional development for teachers: Potential uses of information technology: Report of a workshop. National Academies Press.
- Council, N. R., Behavioral, D. o., Education, C. f., & States, C. o. t. S. o. T. P. P. i. t. U. (2010). *Preparing teachers: Building evidence for sound policy*. National Academies Press.
- Cox, J., & Sagor, R. (2013). At risk students: Reaching and teaching them. Routledge.
- Daily, S. B., & Eugene, W. (2013). Preparing the future STEM workforce for diverse environments. Urban Education, 48(5), 682-704. https://doi.org/10.1177/0042085913490554
- Damon, W. (2009). The path to purpose: How young people find their calling in life. Simon and Schuster.
- Darling-Hammond, L. (2012). Powerful teacher education: Lessons from exemplary programs. John Wiley & Sons.
- Davis, M. H., & McPartland, J. M. (2012). High school reform and student engagement. In *Handbook of research on student engagement* (pp. 515-539). Springer.
- DeMonte, J. (2013). High-Quality Professional Development for Teachers: Supporting Teacher Training to Improve Student Learning. *Center for American Progress*.
- Domene, J. F., Socholotiuk, K. D., & Woitowicz, L. A. (2011). Academic motivation in post-secondary students: Effects of career outcome expectations and type of aspiration. *Canadian Journal of Education/Revue* canadienne de l'éducation, 34(1), 99-127.
- Duderstadt, J. J. (2009). A university for the 21st century. University of Michigan Press.
- Eccles, J. S. (2004). Schools, academic motivation, and stage-environment fit. *Handbook of Adolescent Psychology*, 125-153.
- Eseadi, C. (2023). Career counselling models and services for students with specific learning disabilities. *Konselor*, *12*(1), 1-16. https://doi.org/10.24036/020231216-0-86
- Fan, W., & Williams, C. M. (2010). The effects of parental involvement on students' academic self-efficacy, engagement and intrinsic motivation. *Educational Psychology*, 30(1), 53-74. https://doi.org/10.1080/01443410903353302
- Farao, A., & du Plessis, M. (2024). The need for structured career guidance in a resource-constrained South African school. *African Journal of Career Development*, 6(1), 116. https://doi.org/10520/ejc-ajcd_v6_n1_a116
- Ferris, L.-A. (2014). Secondary student outcomes and perspectives on a multiple pathways approach to education: engagement, achievement, and transitions. [Doctoral dissertation, University of Melbourne].
- Filgona, J., Sakiyo, J., Gwany, D., & Okoronka, A. (2020). Motivation in learning. Asian Journal of Education and Social Studies, 10(4), 16-37. https://doi.org/10.9734/ajess/2020/v10i430273
- Gary, L. T. (2011). Effects of service-learning for high school students on their decisions for post-secondary education, career, and community involvement. Walden University.
- Glavič, P. (2020). Identifying key issues of education for sustainable development. *Sustainability*, *12*(16), 6500. https://doi.org/10.3390/su12166500
- Hall, A. S., & Kelly, K. R. (2021). Identity and career development in gifted students. In *The handbook of secondary* gifted education (pp. 35-63). Routledge.
- Hassan, H., Hussain, M., Niazi, A., Hoshino, Y., Azam, A., & Kazmi, A. S. (2022). Career path decisions and sustainable options. *Sustainability*, 14(17), 10501. https://doi.org/10.3390/su141710501

- Hehir, T., & Katzman, L. I. (2012). *Effective inclusive schools: Designing successful schoolwide programs*. John Wiley & Sons.
- Herr, E. L. (2008). Social contexts for career guidance throughout the world. In *International handbook of career guidance* (pp. 45-67). Springer.
- Hilton, M. L., & Pellegrino, J. W. (2012). Education for life and work: Developing transferable knowledge and skills in the 21st century. National Academies Press.
- Hineman, J. W. (2021). Factors Affecting the Academic Success of High School Students Participating in Dual Credit Career and Technical Programs in Indiana. Indiana State University.
- Hoang, T. T. N. (2020). Understanding Secondary School Student Education Experience: Aspiration, Belonging and Connectedness. Deakin University.
- Jang, H., Reeve, J., & Deci, E. L. (2010). Engaging students in learning activities: It is not autonomy support or structure but autonomy support and structure. *Journal of Educational Psychology*, *102*(3), 588-600.
- Johnson, C. A. (2010). Attitudes and perceptions of general education requirements at career focused post-secondary institutions. Capella University.
- Joshi, R., & Verspoor, A. (2012). Secondary education in Ethiopia: Supporting growth and transformation. World Bank Publications.
- Keele, S. M., Swann, R., & Davie-Smythe, A. (2020). Identifying best practice in career education and development in Australian secondary schools. *Australian Journal of Career Development*, 29(1), 54-66. https://doi.org/10.1177/1038416219886116
- Keshf, Z., & Khanum, S. (2021). Career guidance and counseling needs in a developing country's context: A qualitative study. *Sage Open*, *11*(3), 21582440211040119. https://doi.org/10.1177/21582440211040119
- Kochhar, S. (1984). Educational and vocational guidance in secondary schools. Sterling Publishers Pvt. Ltd.
- Kolb, D. A. (2014). Experiential learning: Experience as the source of learning and development. FT press.
- Leach, L. (2016). Exploring discipline differences in student engagement in one institution. *Higher Education Research and Development*, 35(4), 772-786. https://doi.org/10.1080/07294360.2015.1137875
- Lee, J.-K., Rachmatullah, A., Shin, S., Sya'bandari, Y., Rusmana, A. N., Aini, R. Q., & Ha, M. (2022). A comparison of Korean and Indonesian secondary school students' career values. *International Journal for Educational Vocational Guidance*, 22(1), 117-136. https://doi.org/10.1007/s10775-021-09476-1
- Lent, R. W. (2020). Career development and counseling: A social cognitive framework. *Career Development Counseling: Putting Theory Research to Work*, 129.
- Lynch, R. (2000). High school career and technical education for the first decade of the 21st century. *Journal of Vocational Education Research*, 25(2), 155-198.
- Maki, P. L. (2023). Assessing for learning: Building a sustainable commitment across the institution. Routledge.
- Marope, P. T. M., Chakroun, B., & Holmes, K. (2015). Unleashing the potential: Transforming technical and vocational education and training. UNESCO Publishing.
- Moyo, H. (2018). Effectiveness of the information for planning purposes with particular reference to the South African-school administration management systems in John Taolo Gaetsewe District in the Northern Cape. [Unpublished master's thesis]. Central University of Technology, Free State.
- Ndung'u, O. N. (2008). The role of career guidance and counselling in career awareness and planning among public secondary school students in Kenya [Unpublished master's thesis]. Egerton University.
- Ochieng, V. O., & Ngware, M. (2022). Whole youth development and employment: Exploring the nexus using qualitative data from a Kenyan study of Technical and Vocational Education and Training institutions. *Journal* of Adult and Continuing Education, 28(2), 558-594. https://doi.org/10.1177/14779714211037357
- Okolie, U. C., Nwajiuba, C. A., Binuomote, M. O., Osuji, C. U., Onajite, G. O., & Igwe, P. A. (2020). How careers advice and guidance can facilitate career development in technical, vocational education, and training graduates: The case in Nigeria. *Australian Journal of Career Development*, 29(2), 97-106. https://doi.org/10.1177/1038416220916814
- Penuel, W. R., Fishman, B. J., Yamaguchi, R., & Gallagher, L. P. (2007). What makes professional development

effective? Strategies that foster curriculum implementation. *American Educational Research Journal*, 44(4), 921-958. https://doi.org/10.3102/0002831207308221

- Pintrich, P. R., & Schragben, B. (2012). Students' motivational beliefs and their cognitive engagement in classroom academic tasks. In *Student perceptions in the classroom* (pp. 149-184). Routledge.
- Radó, P. (2021). The institutional conditions of adapting to future challenges in the Hungarian education system. *CEU Center for Policy Studies, Working Paper Series, 1.*
- Ramírez-Montoya, M. S., Andrade-Vargas, L., Rivera-Rogel, D., & Portuguez-Castro, M. (2021). Trends for the future of education programs for professional development. *Sustainability*, 13(13), 7244. https://doi.org/10.3390/su13137244
- Reichert, C. S. (2016). An examination of professional development practices for secondary teachers through the lens of adult learning theory. University of Missouri-Columbia.
- Reinhold, S., Holzberger, D., & Seidel, T. (2018). Encouraging a career in science: a research review of secondary schools' effects on students' STEM orientation. *Studies in Science Education*, 54(1), 69-103. https://doi.org/10.1080/03057267.2018.1442900
- Reis, S. M., & Renzulli, J. S. (2023). The schoolwide enrichment model: A focus on student strengths & interests. In *Systems and models for developing programs for the gifted and talented* (pp. 323-352). Routledge.
- Rodriquez, H. (2018). Social networks and learner persistence in adult secondary education. University of California, San Diego.
- Roth, J. (2023). College and Career Readiness, Addressing an Initiative for Instructional Implementation in the Secondary Classroom [Doctoral dissertation, Northeastern University]. ProQuest Dissertations and Theses Global.
- Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, 101860. https://doi.org/10.1016/j.cedpsych.2020.101860
- Sanford, S. J. (2024). Navigating Futures: A Mixed-Methods Exploration of Factors Shaping Equitable Student Participation in Career and Technical Education. [Doctoral dissertation, California State Polytechnic University, Pomona]. ProQuest Dissertations and Theses Global.
- Shirk, S. L. (2020). Competitive comrades: Career incentives and student strategies in China. University of California Press.
- Siskin, L. S. (2014). Realms of knowledge: Academic departments in secondary schools. Routledge.
- Smit, R., Robin, N., De Toffol, C., & Atanasova, S. (2021). Industry-school projects as an aim to foster secondary school students' interest in technology and engineering careers. *International Journal of Technology and Design Education*, 31, 61-79. https://doi.org/10.1007/s10798-019-09538-0
- Spanjaard, D., Hall, T., & Stegemann, N. (2018). Experiential learning: Helping students to become 'career-ready'. *Australasian Marketing Journal*, *26*(2), 163-171. https://doi.org/10.1016/j.ausmj.2018.04.003
- Stemberger, T. (2020). The teacher career cycle and initial motivation: the case of Slovenian secondary school teachers. *Teacher Development*, 24(5), 709-726. https://doi.org/10.1080/13664530.2020.1829023
- Styslinger, M. E., Clary, D. M., & Oglan, V. A. (2015). Motivating study groups across the disciplines in secondary schools. *Professional Development in Education*, 41(3), 467-486. https://doi.org/10.1080/19415257.2014.901235
- Sublett, C., & Tovar, J. (2021). Community college career and technical education and labor market projections: A national study of alignment. *Community College Review*, 49(2), 177-201. https://doi.org/10.1177/0091552120982008
- Super, D. E. (1976). Career education and the meanings of work. Monographs on Career Education. U.S. Office of Education.
- Swanson, J. L., & Fouad, N. A. (2014). *Career theory and practice: Learning through case studies*. Sage publications.
- Tan, J. P.-L., Choo, S. S., Kang, T., & Liem, G. A. D. (2017). Educating for twenty-first century competencies and

future-ready learners: research perspectives from Singapore. *Asia Pacific Journal of Education*, *37*(4), 425-436. https://doi.org/10.1080/02188791.2017.1405475

- Tigchelaar, A., Brouwer, N., & Vermunt, J. D. (2010). Tailor-made: Towards a pedagogy for educating second-career teachers. *Educational Research Review*, 5(2), 164-183. https://doi.org/10.1016/j.edurev.2009.11.002
- Tinto, V. (2012). Completing college: Rethinking institutional action. University of Chicago Press.
- Wang, X. (2013). Why students choose STEM majors: Motivation, high school learning, and postsecondary context of support. American Educational Research Journal, 50(5), 1081-1121. https://doi.org/10.3102/0002831213488622
- Wang, Y. (2012). Education in a changing world: Flexibility, skills, and employability. World Bank.
- Waqar, A. (2024). The Impact of Internship Programs on Students' Career Development: A Case Study of Pakistan. *Journal of Academic Opinion*, 4(1), 27-34.
- Watts, A. G. (1996). Rethinking careers education and guidance: theory, policy and practice. Psychology Press.
- Webster-Wright, A. (2009). Reframing professional development through understanding authentic professional learning. *Review of Educational Research*, 79(2), 702-739. https://doi.org/10.3102/0034654308330970
- Wong, L. P., & Yuen, M. (2019). Career guidance and counseling in secondary schools in Hong Kong: A historical overview. *Journal of Asia Pacific Counseling*, 9(1), 1-19.
- Wong, L. P., Yuen, M., & Chen, G. (2021). Career-related teacher support: A review of roles that teachers play in supporting students' career planning. *Journal of Psychologists and Counsellors in Schools*, 31(1), 130-141. https://doi.org/10.1017/jgc.2020.30
- Wong, L. P., Yuen, M., & Chen, G. (2023). Career guidance and counselling: The nature and types of career-related teacher social support in Hong Kong secondary schools. In *Counselling and Career Guidance in Asia* (pp. 91-109). Routledge.
- Wurdinger, S. D., & Carlson, J. A. (2009). *Teaching for experiential learning: Five approaches that work*. R&L Education.
- Wyszynska Johansson, M. (2018). Student experience of vocational becoming in upper secondary vocational education and training: Navigating by feedback [Doctoral dissertation, University of Gothenburg]. GUPEA.
- Yates, A., & Bruce, M. (2017). The future of career education in New Zealand secondary schools: A review of the literature. *Australian Journal of Career Development*, 26(2), 62-70. https://doi.org/10.3102/0034654312468619
- Zimmerman, T. S. (2023). What Do You Want to Do When You Grow Up? A Mixed Methods Phenomenology Examining Career Planning Rhythms in Local Schools [Doctoral dissertation, Marymount University]. ProQuest Dissertations and Theses Global.

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Authors contributions

Sample: Dr. DTL and Dr. DTTB were responsible for study design and revising. Dr. DTL was responsible for data collection. Dr. DTL and Dr. DTTB drafted the manuscript and Dr. LHM revised it. All authors read and approved of the final manuscript.

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