The Impact of Career Education on Students' Labour Market Perceptions

Chinegbonkpa Hope Nwakanma

Centre for Education Rights and Transformation (CERT), University of Johannesburg, Johannesburg, South Africa

cnwakanma@uj.ac.za

Abstract

This article examines the impact of career education on students' perceptions of the labour market. The study utilized a narrative literature review methodology to investigate this topic. The article discusses how career education influences students' views on employment opportunities, skills, and employability. The findings reveal that career education plays a crucial role in equipping students with the necessary skills and knowledge to succeed in the job market. The findings underscore the significance of career education in shaping students' understanding of the labour market, career aspirations, decision-making, lifelong learning, and adaptability. The results demonstrate that career education effectively prepares students for future careers by providing accurate information, fostering essential skills, and readying them for labour market demands. It also enables students to overcome obstacles and establish networks that are vital for long-term career development. The findings highlight the importance of career education in enhancing students' employment prospects and employability. Further research is necessary to explore the impact of career education on labour market perceptions among students from diverse cultural, socioeconomic, and educational backgrounds.

Keywords: Career Education, Employability, Labour Market, Skills, Students

Introduction

Labour market perception is influenced by factors such as individual attitudes, preferences, and structural characteristics (Deery & Jago, 2002). Personal and structural characteristics influence the development of educational and occupational preferences, which in turn affect perceptions of the labour market (Dimaki et al., 2005). Indrašienė et al. (2023) found that employers and employees have different perspectives on the value and application of critical thinking in the workplace, highlighting the need to enhance critical thinking skills. Firm characteristics, national locations, and sectoral associations all influence how firms perceive labour market constraints such as labour regulations and skill shortages (Fakih & Ghazalian, 2015). In other words, research indicates that individual, organizational, and structural factors influence labour market perception, shaping attitudes and behaviors within the labour market. However, there is a lack of a narrative research on the perception of labour market in relation to career education among students, leading to a limited understanding of how they perceive themselves in the labour market.

In the current rapidly changing job market, it is crucial for students to prepare themselves for a successful career. While traditional academic education is essential, it is equally important to provide students with practical skills and knowledge needed to navigate the labour market (Shen, 2021; Eseadi & Diale, 2023a). Career education has emerged as a critical component of students' development, bridging the gap between academic learning and the ever-changing demands of the job market (Guichard, 2001). Career education helps students shape their perceptions of the labour market and successfully navigate it by providing the necessary tools

and resources (Keele et al., 2020). With rapid technological advancements, globalization, and shifting job trends, educational institutions must equip students with the necessary career skills and knowledge to succeed (Lynch, 2000; Sutherland et al., 2005; Wong et al., 2019). The transition from education to the labour market is a significant stage in every student's life as it determines their professional development and future prospects (Eseadi, 2023a). Career education plays a vital role in this transition by providing students with the necessary knowledge, skills, and information to navigate it successfully (Eseadi, 2024). Career education increases their employability and emphasizes the importance of these skills in the job market by encouraging students to seek opportunities for skill development (Compton et al., 2010; Eseadi & Diale, 2023a; McWhirter et al., 2000).

Career education is a multifaceted process that includes the development of graduate capital, academic motivation, and personal values necessary for graduate employability (Tomlinson, 2017). It is also considered a crucial factor in establishing a successful career, with education playing a critical role in determining an individual's career path and success (Hitka et al., 2021). Gender expectations, socioeconomic inequalities, and individual perceptions of career success all impact career education, as shown in a qualitative study of university students (Fernández et al., 2023). Furthermore, an ecological perspective highlights the societal and contextual factors that influence youth career education, particularly in transitioning societies like China (Xie et al., 2019). Career education encompasses various activities and programmes designed to help students explore and make informed decisions about their future careers, improve their career readiness and development, and expose them to different professions (Peng, 2001; Talib et al., 2015). It also offers career advice, skill development, internships, and networking opportunities (Eseadi & Diale, 2023b). Engaging students in career education early on has a significant impact on their career development by providing a better understanding of the labour market, identifying career interests, and developing the skills required by industries (Cerrito et al., 2018: Welde et al., 2016; Wood & Kaszubowski, 2008). The role of some factors, such as personal values, academic motivation, societal expectations, and education in shaping job outcomes, demonstrate the wide range of elements encompassed by career education (Rosantono et al., 2021; Xing et al., 2019).

Career education is essential in preparing students to make informed academic and occupational decisions. It improves undergraduate education, attracts and retains talented students, and provides a pathway for minority students into science careers (Berger et al., 2019; Lopatto, 2004). A whole-school approach to career education has been shown to benefit secondary school students (Yates & Bruce, 2017). However, the provision of career guidance varies significantly across countries, highlighting the need for a more integrated approach to career education in schools (Hearne & Neary, 2020). School-based career education can also help students from low-income backgrounds develop their careers (Lee et al., 2021). Moreover, Teychenne et al. (2019) found that completing a brief online career education module tailored to individual skills and interests increased students' career adaptability. In other words, career education plays a critical role in assisting students in making informed career decisions and preparing them for their future careers.

Career education is increasingly recognized as an important transitional mechanism for young people (Keele et al., 2020). Khan (2018) emphasizes the importance of career education in the national school curriculum. To successfully integrate career education into mainstream academic content, teachers should receive career development training (Welde et al., 2015). The use of career guidance apps and systems in higher education has been proposed to improve career and educational guidance (El-Sofany & El-Seoud, 2020). Contextual factors in various ecological systems, such as economic, educational, and sociocultural factors, can either support

Didaktika: Jurnal Kependidikan, Vol. 13, No. 1, Februari 2024

or hinder youth career education in transitioning societies (Xie et al., 2019). The literature on career education identifies gaps in meeting college students' career development needs (Hughes et al., 2013) and emphasizes the importance of reassessing current career development models for students (Witenstein et al., 2022). Culturally responsive career support for student populations is also crucial (Watkinson & Hersi, 2014). These expositions in the literature underscore the need for more emphasis on career education that addresses students' diverse needs and their labour market perceptions. This article's objective was to examine how career education influences students' perceptions of the labour market through a narrative literature review methodology.

Method

This research article utilized a narrative literature review methodology. Narrative literature reviews are an effective way to synthesize diverse research findings by using narrative synthesis to discuss a wide range of studies on a research topic of interest (Cronin et al., 2008; Culley et al., 2013; Eseadi & Ogbuabor, 2023). The purpose of a narrative review is to extract relevant data from previous literature in order to provide an overview of the field by identifying, selecting, evaluating, and synthesizing their narrative component (Pugh et al., 2018). The narrative literature search strategy enables the author to efficiently gather and analyze data (Eseadi, 2023b; Eseadi & Diale, 2023b; Kim et al., 2020; Makuyana et al., 2022; Moola et al., 2022). To collect and analyze relevant data for a narrative review, the researcher identified and synthesized information from various sources, including academic journals and conference proceedings. These sources provided valuable information and insights about the research topic. For this research article, scholarly literature was collected from online databases such as Crossref, Google Scholar, Semantic Scholar, ResearchGate, and Scilit.

Results and Discussion

Using a narrative literature review, this article investigated how career education influences students' perceptions of the labour market. According to the literature, career education has a significant impact on students' perceptions of the labour market. Students' perceptions of educational value, teacher satisfaction, and teaching specialty all have a significant impact on their career choices (Pfarwaller et al., 2015). Social class and habitus shape students' perceptions of graduate careers and the labour market (Burke et al., 2019). Gender differences have also been observed, with male students having a stronger labour market perception and career behavior than female students (Suharso et al., 2022). Changes in the labour market also have an impact on students' attitudes towards employment and their initial career decisions (Nachmias et al., 2014). There is also a gap between students' career choices and labour market demands, emphasizing the need for educational institutions and researchers to address this issue (van Iersel et al., 2018; van Iersel et al., 2020). Integrating career research modules into the curriculum has been shown to promote career exploration, understanding of the labour market, and the development of necessary skills for desired careers (Julien et al., 2023; Shen, 2021). Quality career education and guidance are crucial, especially in light of rapid technological advancements and globalization trends (Margevica-Grinberga & Smitina, 2021).

Career education has a significant impact on students' perceptions of employment opportunities and plays an important role in preparing them for the job market. Career education programmes have a significant impact on students' career aspirations because they expose them to a diverse range of career opportunities, allowing them to consider possibilities beyond their immediate surroundings. According to previous research, it is critical to understand

students' expectations and perceptions of the relationship between their education and the job market (Al-Harthi, 2011). This implies that a focus on employability can improve student recruitment and alleviate concerns about career prospects (Gedye et al., 2004). Career education programmes have been shown to improve students' perceptions of their careers (Shahriar et al., 2022). According to Carvalho and Mourão (2021), career adaptability and professional development influence students' perceptions of employability. Bourdieu's theoretical framework can help us understand how career education affects students' career goals (Groves et al., 2021). Specialized career experience programmes can also help students develop their career maturity and community awareness (Park et al., 2020). Career education programmes provide students with insights into various industries, job roles, and emerging sectors. Such exposure allows students to consider a broader range of career options, both traditional and unconventional. Career education helps students make realistic and informed decisions about their future careers by providing information on job market trends. As a result, students become more aware of potential challenges and are better prepared to adapt to changing labour market dynamics.

Career education has a significant impact on students' understanding of the skills needed in the labour market. It is critical in helping students understand the skills needed in the labour market. Exposure to various industries and professions enables students to understand the skills and qualifications required for various jobs, resulting in realistic and informed career objectives (Mann et al., 2020; Peng, 2001). According to research, career education interventions have a positive impact on students' career decisions and employability. Students' perceptions of career education in school are also positively associated with their career development competencies (Lee et al., 2021). Career education in high schools has been demonstrated to have a significant impact on students' career planning and decision-making (Shen, 2021). Career education has been emphasized as a means of preparing and engaging students in their future careers, enriching their life experiences and increasing their employability (Xie et al., 2019). Career education emphasizes the importance of developing transferable skills such as communication, problem-solving, critical thinking, and teamwork (Mann et al., 2020; Van Wart et al., 2020). Career education programmes provide students with the tools they need to make informed career decisions (Mtemeri, 2017; Park & Shin, 2014). Students are empowered to make decisions that are in line with their interests, abilities, and labour market demands by being informed about various career paths, job opportunities, and required skills (Bubany et al., 2008). Such informed decision-making leads to higher job satisfaction and fewer instances of career mismatch. These findings highlight the importance of career education in helping students understand the skills required in the labour market, resulting in a successful transition into the workforce.

Career education plays an important role in improving students' employability by providing them with the necessary skills and readiness for the job market (Bridgstock et al., 2019). Students learn vital skills such as communication, teamwork, problem-solving, and adaptability through activities like workshops, internships, and mentorship programmes (Ho et al., 2023). These skills increase their chances of finding meaningful and long-term employment. Students who have completed career education programmes are confident and better equipped to market themselves to potential employers (Ho et al., 2023). Career education also offers opportunities for internships, work placements, and industry collaborations, bridging the gap between theoretical knowledge and practical experience (Dean & Sykes, 2021; Little & Harvey, 2006; Zehr & Korte, 2020). Studies have shown that completing career education modules tailored to students' specific skills and interests improves career adaptability (Teychenne et al., 2019). Domagała-Zyśk et al. (2022) found that students' perceived employability can inform educational

Didaktika: Jurnal Kependidikan, Vol. 13, No. 1, Februari 2024

offerings and career planning in an unstable job market. Therefore, career education should begin early in students' academic careers to enhance employability and career awareness (Lock & Kelly, 2020). Similarly, career adaptability improves career readiness and job search intentions (Al-Waqfi et al., 2023). Career education helps students cultivate a lifelong learning mindset, enabling them to adapt to future labour market demands (Choi et al., 2015). Students who participate in career education are more likely to pursue additional education and professional development, staying current with industry trends and emerging opportunities (Brand et al., 2013). To maximize its impact, educational institutions, employers, and policymakers must collaborate and invest in comprehensive career education programmes that address the changing demands of the labour market. Its effectiveness also relies on providing adequate resources and training for career educators, as well as aligning curricula with labour market demands. These findings highlight the importance of career education in improving students' employability.

Technological advancements, globalization, and changing industry landscapes are driving unprecedented changes in the labour market and students' career prospects (Abe & Chikoko, 2020; Ugwuanyi et al., 2019). Career education provides students with the knowledge and insight they need to anticipate and adapt to these changes (Sutherland et al., 2005; Wong et al., 2019). It enables students to identify emerging trends, in-demand jobs, and future skill requirements. Internships and work-based learning opportunities allow students to gain practical experience and industry-specific knowledge, preparing them to meet labour market demands and positioning them as valuable assets to potential employers (Chatterjee et al., 2019). As previously mentioned, one of the primary advantages of career education is the development of necessary skills among students. These abilities go beyond theoretical knowledge and include communication, problem-solving, critical thinking, and teamwork. Through career education, students can participate in workshops, training sessions, and industry collaborations to improve their in-demand skills (Eseadi, 2023c). This not only enhances their employability but also enables them to adapt to changing work environments and excel in their chosen field. Career education also helps students overcome challenges in the labour market by offering tips on resume writing, interview preparation, and networking (Schnoes et al., 2018; Xing et al., 2019). Building networks is essential in today's competitive job market, and career education connects students with professionals, alumni, and mentors who can offer valuable insights and advice (De Janasz et al., 2003; Gerard, 2012). These networks provide opportunities for job placement, internships, and long-term professional development. Career education dispels common myths and misconceptions about specific industries and occupations. Students often have preconceived notions about certain careers that limit their options and create unrealistic expectations (Ogbuanya et al., 2018a; 2018b). Career education closes this gap by providing accurate and current information about various career paths, job requirements, and potential salary ranges. Moreover, students can make informed decisions and align their career goals with their abilities and interests by gaining accurate knowledge through career education.

Conclusion

This article evaluates the impact of career education on students' perceptions of the labour market. Career education helps students broaden their understanding of employment prospects, acquire essential skills, and enhance their overall employability. Students can become better prepared to navigate the complexities of the job market by exposing them to industry knowledge, offering career guidance, and providing practical experiences. It is crucial for educational institutions and policymakers to prioritize career education to ensure that students are ready for

the ever-evolving job market and can make informed decisions about their future. Therefore, educational institutions must recognize the relevance of career education and develop robust programmes to ensure students are equipped for success in their future careers. Educational institutions should also empower students and enhance their perception of the labour market by incorporating career education into the curriculum. This will help foster a skilled and adaptable workforce. Further research is needed to investigate the impact of career education on labour market perceptions among students from different cultural, socioeconomic, and educational backgrounds. More research is also required to assess the long-term effects of career education on students' labour market perceptions. This includes examining whether the benefits observed in the short term persist over time and how career education affects students' career outcomes, such as job satisfaction, salary, and professional development opportunities.

Acknowledgment

The author would like to appreciate all the researchers whose previous works laid the foundation for this narrative review study.

References

- Abe, E.N., & Chikoko, V. (2020). Exploring the factors that influence the career decision of STEM students at a university in South Africa. *International Journal of STEM Education, 7*, 60. https://doi.org/10.1186/s40594-020-00256-x
- Al-Harthi, H. (2011). University student perceptions of the relationship between university education and the labour market in Egypt and Oman. *Prospects, 41*(4), 535-551. https://doi.org/10.1007/s11125-011-9216-4
- Al-Waqfi, M., Tlaiss, H., & Ghoudi, K. (2023). Career adaptability as a predictor of job search intentions and career readiness of young adults in the United Arab Emirates. *Journal of Career Development, 50*(5), 1076-1096. https://doi.org/10.1177/08948453231157759
- Berger, N., Hanham, J., Stevens, C., & Holmes, K. (2019). Immediate feedback improves career decision self-efficacy and aspirational alignment. *Frontiers in Psychology, 10*. https://doi.org/10.3389/fpsyg.2019.00255
- Brand, B., Valent, A., & Browning, A. (2013). *How Career and Technical Education Can Help Students Be College and Career Ready: A Primer*. College and Career Readiness and Success Center. https://eric.ed.gov/?id=ED555696
- 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.
- Bubany, S. T., Krieshok, T. S., Black, M. D., & McKay, R. A. (2008). College students' perspectives on their career decision making. *Journal of Career Assessment*, 16(2), 177-197. https://doi.org/10.1177/1069072707313189
- Burke, C., Scurry, T., & Blenkinsopp, J. (2019). Navigating the graduate labour market: the impact of social class on student understandings of graduate careers and the graduate labour market. *Studies in Higher Education, 45*(8), 1711-1722. https://doi.org/10.1080/03075079.2019.1702014
- Carvalho, L. & Mourão, L. (2021). Career adaptability, perceptions of professional development and employability: a mediation analysis. *Psico-Usf*, *26*(4), 697-705. https://doi.org/10.1590/1413-82712021260408

Didaktika: Jurnal Kependidikan, Vol. 13, No. 1, Februari 2024

- Cerrito, J. A., Trusty, J., & Behun, R. J. (2018). Comparing web-based and traditional career interventions with elementary students: An experimental study. *The Career Development Quarterly*, 66(4), 286-299. https://doi.org/10.1002/cdq.12151
- Chatterjee, D., Ford, J. K., Rojewski, J., & Watts, S. W. (2019). Exploring the Impact of Formal Internships on Biomedical Graduate and Postgraduate Careers: An Interview Study. *CBE Life Sciences Education*, *18*(2), ar20. https://doi.org/10.1187/cbe.18-09-0199
- Choi, Y., Kim, J., & Kim, S. (2015). Career development and school success in adolescents: The role of career interventions. *The Career Development Quarterly, 63*(2), 171-186. https://doi.org/10.1002/cdq.12012
- Compton, J. I., Laanan, F. S., & Starobin, S. S. (2010). Career and technical education as pathways: Factors influencing postcollege earnings of selected career clusters. *Journal of Education for Students Placed at Risk, 15*(1-2), 93-113. https://doi.org/10.1080/10824661003635044
- Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: a step-by-step approach. *British Journal of Nursing, 17*(1), 38-43. https://doi.org/10.12968/bjon.2008.17.1.28059
- Culley, L., Law, C., Hudson, N., Denny, E., Mitchell, H., Baumgarten, M., ... & Raine-Fenning, N. (2013). The social and psychological impact of endometriosis on women's lives: a critical narrative review. *Human Reproduction Update*, 19(6), 625-639. https://doi.org/10.1093/humupd/dmt027
- De Janasz, S. C., Sullivan, S. E., & Whiting, V. (2003). Mentor networks and career success: Lessons for turbulent times. *Academy of Management Perspectives*, *17*(4), 78-91. https://doi.org/10.5465/ame.2003.11851850
- Dean, B. A., & Sykes, C. (2021). How students learn on placement: Transitioning placement practices in work-integrated learning. *Vocations and Learning*, *14*(1), 147-164. https://doi.org/10.1007/s12186-020-09257-x
- Deery, M. & Jago, L. (2002). The core and the periphery: an examination of the flexible workforce model in the hotel industry. *International Journal of Hospitality Management,* 21(4), 339-351. https://doi.org/10.1016/s0278-4319(02)00013-0
- Dimaki, K., Kaminioti, O., Kostaki, A., Psarakis, S., & Tsourti, Z. (2005). Educational and occupational preferences of high school students in Greece. *Education + Training*, 47(6), 432-446. https://doi.org/10.1108/00400910510617051
- Domagała-Zyśk, E., Mamcarz, P., Martynowska, K., Fudali-Czyż, A., & Rothwell, A. (2022). Self-perceived employability scale Polish adaptation. *The New Educational Review, 70*(4), 9-22. https://doi.org/10.15804/tner.2022.70.4.01
- El-Sofany, H. & El-Seoud, S. (2020). The implementation of career and educational guidance system (cegs) as a cloud service. *International Journal of Emerging Technologies in Learning (IJET)*, *15*(20), 226. https://doi.org/10.3991/ijet.v15i20.16839
- Eseadi, C. (2023a). Assessing Theories and Strategies Regarding Career Transition for Students with Visual Impairments. *Didaktika: Jurnal Kependidikan, 12*(4), 803-818. https://doi.org/10.58230/27454312.262
- Eseadi, C. (2023b). Interventions for supporting career transition among students with visual impairments. *Psikoislamika: Jurnal Psikologi dan Psikologi Islam, 20*(2), 698-715. https://doi.org/10.18860/psikoislamika.v20i2.24315
- Eseadi, C. (2023c). Enhancing educational and career prospects: A comprehensive analysis of institutional support for students with specific learning disabilities. *International Journal of Research in Counseling and Education, 7*(1), 16-22. https://doi.org/10.24036/00628za0002

- Eseadi, C. (2024). Impacts and Barriers Associated with Career Transition Among Students with Specific Learning Disabilities. *Journal of Education and Teaching (JET), 5*(1), 42-59. https://doi.org/10.51454/jet.v5i1.318
- Eseadi, C., & Diale, B. M. (2023a). Perspective on career assessment tools for evaluating students with specific learning disabilities. *Journal of Advanced Guidance and Counseling*, 4(2), 81-98. https://doi.org/10.21580/jagc.2023.4.2.18255
- Eseadi, C., & Diale, B. M. (2023b). Examining Career Transitioning among Students with Specific Learning Disabilities. *International Journal of Special Education*, 38(3), 82-94. https://doi.org/10.52291/ijse.2023.38.41
- Eseadi, C., & Ogbuabor, S. E. (2023). Career Transitioning among Students with Visual Impairments: Educational and Public Policy Perspectives. *Jurnal Kajian Bimbingan dan Konseling*, 8(3), 191-198. https://doi.org/10.17977/um001v8i32023p191-198
- Fakih, A. & Ghazalian, P. (2015). What factors influence firm perceptions of labour market constraints to growth in the mena region?. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2675441
- Fernández, D., Ryan, M., & Begeny, C. (2023). Gender expectations, socioeconomic inequalities and definitions of career success: a qualitative study with university students. *Plos One,* 18(2), e0281967. https://doi.org/10.1371/journal.pone.0281967
- Gedye, S., Fender, E., & Chalkley, B. (2004). Students' undergraduate expectations and post-graduation experiences of the value of a degree. *Journal of Geography in Higher Education*, 28(3), 381-396. https://doi.org/10.1080/0309826042000286956
- Gerard, J. G. (2012). Linking in with LinkedIn®: Three exercises that enhance professional social networking and career building. *Journal of Management Education*, *36*(6), 866-897. https://doi.org/10.1177/1052562911413464
- Groves, O., Austin, K., O'Shea, S., & Lamanna, J. (2021). 'One student might get one opportunity and then the next student won't get anything like that': inequities in Australian career education and recommendations for a fairer future. *The Australian Educational Researcher*, *50*(2), 519-536. https://doi.org/10.1007/s13384-021-00468-2
- Guichard, J. (2001). A century of career education: Review and perspectives. *International Journal for Educational and Vocational Guidance, 1*(3), 155-176. https://doi.org/10.1023/A:1012207018303
- Hearne, L. & Neary, S. (2020). Let's talk about career guidance in secondary schools! A consideration of the professional capital of school staff in ireland and england. *International Journal for Educational and Vocational Guidance, 21*(1), 1-14. https://doi.org/10.1007/s10775-020-09424-5
- Hitka, M., Štarchoň, P., Lorincová, S., & Caha, Z. (2021). Education as a key in career building. *Journal of Business Economics and Management, 22*(4), 1065-1083. https://doi.org/10.3846/jbem.2021.15399
- Hughes, A., Gibbons, M., & Mynatt, B. (2013). Using narrative career counseling with the underprepared college student. *The Career Development Quarterly, 61*(1), 40-49. https://doi.org/10.1002/j.2161-0045.2013.00034.x
- Ho, T. T. H., Le, V. H., Nguyen, D. T., Nguyen, C. T. P., & Nguyen, H. T. T. (2023). Effects of career development learning on students' perceived employability: a longitudinal study. *Higher Education, 86*(2), 297-315. https://doi.org/10.1007/s10734-022-00933-6
- Ifeanyieze, F., Ede, K., Ejiofor, T., Onah, O., Isiwu, E., Nwankwo, C., ... & Nyakuwa, R. (2023). Psychological intervention for career self-esteem among students of agricultural education programme. *Medicine,* 102(21), e33886. https://doi.org/10.1097/md.0000000000033886

- Ifeanyieze, F., Ede, M., Ejiofor, T., Ekenta, L., Onah, O., Okechukwu, F., ... & Samuel, M. (2021). Irrational career beliefs in agricultural education students, demographics, impacts, and rational career education intervention. *Medicine*, 100(22), e26168. https://doi.org/10.1097/md.00000000000026168
- Indrašienė, V., Jegelevičienė, V., Merfeldaitė, O., Penkauskienė, D., Pivorienė, J., Railienė, A., ... & Sadauskas, J. (2023). Value of critical thinking in the labour market: variations in employers' and employees' views. Social Sciences, 12(4), 221. https://doi.org/10.3390/socsci12040221
- Schnoes, A. M., Caliendo, A., Morand, J., Dillinger, T., Naffziger-Hirsch, M., Moses, B., Gibeling, J. C., Yamamoto, K. R., Lindstaedt, B., McGee, R., & O'Brien, T. C. (2018). Internship Experiences Contribute to Confident Career Decision Making for Doctoral Students in the Life Sciences. *CBE Life Sciences Education*, *17*(1), ar16. https://doi.org/10.1187/cbe.17-08-0164
- Julien, B., Lexis, L., & Church, J. (2023). A career research module promotes career exploration and understanding of the labour market and transferable skills. *Journal of Teaching and Learning for Graduate Employability, 14*(1), 31-52. https://doi.org/10.21153/jtlge2023vol14no1art1498
- Keele, S., 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
- Khan, A. (2018). Application of career education in national curriculum of Pakistan at elementary level. *International E-Journal of Educational Studies, 2*(4), 114-119. https://doi.org/10.31458/iejes.442593
- Kim, J., Harris-Roxas, B., de Leeuw, E., Lilley, D., Crimeen, A., & Sainsbury, P. (2021). Protocol for a meta-narrative review on research paradigms addressing the urban built environment and human health. *Systematic Reviews*, 10(1), 311. https://doi.org/10.1186/s13643-021-01848-6
- Lee, G., Kim, J., & Lee, M. (2021). Equity in career development of high school students in South Korea: the role of school career education. *Education Sciences*, *11*(1), 20. https://doi.org/10.3390/educsci11010020
- Little, B., & Harvey, L. (2006). *Learning through work placements and beyond.* CHERI, The Open University, London.
- Lock, E. & Kelly, K. (2020). Ignorance is risk: an exploratory investigation of students' perceptions of their education–employment pathways. *Journal of Teaching and Learning for Graduate Employability, 11*(1), 22-36. https://doi.org/10.21153/jtlge2020vol11no1art894
- Lopatto, D. (2004). Survey of undergraduate research experiences (sure): first findings. *Cell Biology Education*, *3*(4), 270-277. https://doi.org/10.1187/cbe.04-07-0045
- 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.
- Makuyana, T., Plessis, E., & Chikuta, O. (2022). Literature profiling on tourism, impairment and disability issues: a future directional guide. *African Journal of Disability*, 11. https://doi.org/10.4102/ajod.v11i0.862
- Mann, A., Denis, V., Schleicher, A., Ekhtiari, H., Forsyth, T., Liu, E., & Chambers, N. (2020). *Teenagers' career aspirations and the future of work*. OECD. https://www.oecd.org/berlin/publikationen/Dream-Jobs.pdf
- Margevica-Grinberga, I. & Smitiņa, A. (2021). Self-assessment of the digital skills of career education specialists during the provision of remote services. *World Journal on*

- *Educational Technology Current Issues,* 13(4), 1061-1072. https://doi.org/10.18844/wjet.v13i4.6296
- McWhirter, E. H., Crothers, M., & Rasheed, S. (2000). The effects of high school career education on social–cognitive variables. *Journal of Counseling Psychology, 47*(3), 330–341. https://doi.org/10.1037/0022-0167.47.3.330
- Moola, F., Buliung, R., Posa, S., Moothathamby, N., Woodgate, R., Hansen, N., ... & Ross, T. (2022). Behind the paintbrush: understanding the impact of visual arts-based research (ABR) in the lives of disabled children and youth as well as methodological insights in ABR application. *Canadian Journal of Disability Studies, 11*(2), 119-160. https://doi.org/10.15353/cjds.v11i2.891
- Mtemeri, J. (2017). Factors influencing the choice of career pathways among high school students in Midlands Province, Zimbabwe. (*Unpublished Doctoral Dissertation*). *University of South Africa, Pretoria, South Africa*.
- Nachmias, S., Paddison, B., & Mortimer, C. (2014). Recession: a chance for hospitality SMEs?. *Education + Training, 56*(5), 414-429. https://doi.org/10.1108/et-04-2013-0056
- Ogbuanya, T. C., Eseadi, C., Orji, C. T., Anyanwu, J. I., Ede, M. O., & Bakare, J. (2018a). Effect of rational emotive behavior therapy on negative career thoughts of students in technical colleges in Nigeria. *Psychological Reports*, *121*(2), 356-374. https://doi.org/10.1177/0033294117724449
- Ogbuanya, T. C., Eseadi, C., Orji, C. T., Anyanwu, J. I., Joachim, O. C., & Otu, M. S. (2018b). The effect of rational emotive behavior therapy on irrational career beliefs of students of electrical electronics and other engineering trades in technical colleges in Nigeria. Journal of Rational-Emotive & Cognitive-Behavior Therapy, 36, 201-219. https://doi.org/10.1007/s10942-017-0282-2
- Park, H. & Jang-hoe, K. (2020). The effects of local-specialized career experience programs on Korean students' career maturity and community awareness. *International Conference on Education and New Developments, Korea Research Institute for Vocational Education & Training*. https://doi.org/10.36315/2020end099
- Park, H. J., & Shin, Y. J. (2014). The Influences of Career Education Programs Related to the Science on Elementary School Students' Career Choice. *Journal of Korean Elementary Science Education*, 33(2), 380-400. https://doi.org/10.15267/keses.2014.33.2.380
- Peng, H. (2001). Comparing the effectiveness of two different career education courses on career decidedness for college freshmen: An exploratory study. *Journal of Career Development*, 28(1), 29-41. https://doi.org/10.1023/A:1011137914570
- Pfarrwaller, E., Sommer, J., Chung, C., Maisonneuve, H., Nendaz, M., Perron, N., ... & Haller, D. (2015). Impact of interventions to increase the proportion of medical students choosing a primary care career: a systematic review. *Journal of General Internal Medicine*, 30(9), 1349-1358. https://doi.org/10.1007/s11606-015-3372-9
- Pugh, P., Hemingway, P., Christian, M., & Higginbottom, G. (2018). Children's, parents' and other stakeholders' perspectives on early dietary self-management to delay disease progression of chronic disease in children: a protocol for a mixed studies systematic review with a narrative synthesis. *Systematic Reviews*, 7(1). https://doi.org/10.1186/s13643-017-0671-8
- Rosantono, I. G., Wijanarka, B. S., Daryono, R. W., & Nurtanto, M. (2021). Analysis of the influencing factor of vocational education students career decisions. *Jurnal Pendidikan dan Pengajaran*, *54*(3), 582-595. http://dx.doi.org/10.23887/jpp.v54i3.41023

- habrian C. Davesala I. Taurkaad M. Ausaan T. Canabanaan A. S. Al Ali A. (2022) Namati
- Shahriar, S., Ramesh, J., Towheed, M., Ameen, T., Sagahyroon, A., & Al-Ali, A. (2022). Narrative integrated career exploration platform. *Frontiers in Education, 7*. https://doi.org/10.3389/feduc.2022.798950
- Shen, Q. (2021). The importance of integrating career planning education into high school curriculum. *Advances in Social Science, Education and Humanities Research*, 2115–2120. https://doi.org/10.2991/assehr.k.211220.364
- Sutherland, D., Levine, K., & Barth, B. (2005). Investigating the impact of a career education program on school engagement. *Canadian Journal of Urban Research*, 131-157.
- Talib, J. A., Salleh, A., Amat, S., Ghavifekr, S., & Ariff, A. M. (2015). Effect of career education module on career development of community college students. *International Journal* for Educational and Vocational Guidance, 15, 37-55. https://doi.org/10.1007/s10775-014-9279-x
- Teychenne, M., Parker, K., Teychenne, D., Sahlqvist, S., Macfarlane, S., & Costigan, S. (2019). A pre-post evaluation of an online career planning module on university students' career adaptability. *Journal of Teaching and Learning for Graduate Employability, 10*(1), 42-55. https://doi.org/10.21153/jtlge2019vol10no1art781
- Tomlinson, M. (2017). Forms of graduate capital and their relationship to graduate employability. *Education* + *Training*, *59*(4), 338-352. https://doi.org/10.1108/et-05-2016-0090
- Watkinson, J. & Hersi, A. (2014). School counselors supporting African immigrant students' career development: a case study. *The Career Development Quarterly, 62*(1), 44-55. https://doi.org/10.1002/j.2161-0045.2014.00069.x
- Ugwuanyi, C.S., Nduji, C.C., Gana, C.S., Nwajiuba, C.A., Ene, C.U., Okeke, A.O., Eseadi, C., & Okeke, C.F. (2019). Effectiveness of flipped classroom instructional technology model in enhancing students' achievement in Physics. *International Journal of u- and e-Service, Science and Technology, 12*(4), 37-46.
- van Iersel, M., Latour, C. H. M., van Rijn, M., de Vos, R., Kirschner, P. A., & Scholte Op Reimer, W. J. M. (2020). How nursing students' placement preferences and perceptions of community care develop in a more 'community-oriented' curriculum: a longitudinal cohort study. *BMC Nursing*, 19, 80. https://doi.org/10.1186/s12912-020-00473-3
- van Iersel, M., Latour, C., Vos, R., Kirschner, P., & Reimer, W. (2018). Perceptions of community care and placement preferences in first-year nursing students: a multicentre, cross-sectional study. *Nurse Education Today, 60,* 92-97. https://doi.org/10.1016/j.nedt.2017.09.016
- Van Wart, A., O'Brien, T. C., Varvayanis, S., Alder, J., Greenier, J., Layton, R. L., Stayart, C. A., Wefes, I., & Brady, A. E. (2020). Applying Experiential Learning to Career Development Training for Biomedical Graduate Students and Postdocs: Perspectives on Program Development and Design. *CBE Life Sciences Education*, 19(3), es7. https://doi.org/10.1187/cbe.19-12-0270
- Welde, A. M., Bernes, K. B., Gunn, T. M., & Ross, S. A. (2016). Career education at the elementary school level: Student and intern teacher perspectives. *Journal of Career Development*, 43(5), 426-446. https://doi.org/10.1177/0894845316633524
- Welde, A., Bernes, K., Gunn, T., & Ross, S. (2015). Integrated career education in senior high: intern teacher and student recommendations. *Australian Journal of Career Development*, 24(2), 81-92. https://doi.org/10.1177/1038416215575163
- Wibowo, M., Nugraha, Y., & Kunwijaya, I. (2022). Identification of career behaviors and labor market perceptions among postgraduate students. *Advances in Social Science, Education and Humanities Research,* 738-742. https://doi.org/10.2991/assehr.k.211125.140

- Witenstein, M., Davila, N., Karikari, L., & Wright, C. (2022). Conceptualizing a proposed model for re-orienting career centers for immigrant college students. *Journal of Career Development*, *50*(3), 519-533. https://doi.org/10.1177/08948453221112441
- Wong, L. P. W., Yuen, M., & Chen, G. (2019). Technology-infused career and life planning education. *Asia Pacific Career Development Journal*, *2*(2), 51-62.
- Wood, C., & Kaszubowski, Y. (2008). The career development needs of rural elementary school students. *The Elementary School Journal*, 108(5), 431-444. https://doi.org/10.1086/589472
- Xiao, Y. & Watson, M. (2017). Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, 39(1), 93-112. https://doi.org/10.1177/0739456x17723971
- Xie, D., Ning, K., Skaggs, S., & Yang, A. (2019). An ecological perspective on youth career education in transitioning societies: China as an example. *Journal of Career Development*, 46(6), 651-664. https://doi.org/10.1177/0894845318824673
- Xing, X., Garza, T., & Huerta, M. (2019). Factors influencing high school students' career and technical education enrollment patterns. *Career and Technical Education Research*, 44(3), 53-70. https://doi.org/10.5328/cter44.3.53
- 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/10.1177/1038416217700421
- Zehr, S. M., & Korte, R. (2020). Student internship experiences: learning about the workplace. *Education+ Training, 62*(3), 311-324. https://doi.org/10.1108/ET-11-2018-0236