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Charting the Skies and Seas: A Comparative Study of Career Awareness in Aviation and Maritime Professions Among Primary School Learners

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ABSTRACT
The aviation and maritime sectors are vital for global transport and economic growth, yet attracting youth to these fields is challenging. This comparative analysis investigates primary learners' views on aviation and maritime careers, emphasising motivations, barriers and educational needs. Utilising Social Cognitive Career Theory (SCCT) and Social Learning Theory of Career Decision-Making (SLTCDM), the research assesses how early exposure, outcome expectations and self-efficacy influence learners' interest in these industries. By focusing on primary school learners, a largely overlooked group in career development research, this study contributes novel insights into early-stage career perceptions. A qualitative thematic analysis was conducted using feedback from learners attending a career exhibition targeting aviation and maritime professions. Results indicate that both fields are viewed as exciting and lucrative; however, aviation careers are linked to academic challenges and high training costs, while maritime roles are perceived as physically demanding and associated with prolonged family absences. Key motivators identified include financial security, opportunities for global travel and diverse career options, whereas significant barriers entail issues related to work-life balance, limited career awareness, and industry-specific challenges. The findings underscore the need for structured career exposure, experiential learning, and mentorship programmes to connect learners with non-traditional careers. Practical implications include integrating career education into curricula, fostering industry-school partnerships, promoting gender diversity, and leveraging technology for career guidance. Addressing these challenges through targeted interventions can effectively attract a diverse, skilled workforce to the aviation and maritime sectors.

KEYWORDS
Career perceptions, aviation careers, maritime careers, Social Cognitive Career Theory, Social Learning Theory of Career Decision-Making, career exposure, career barriers, industry-school partnerships.

INTRODUCTION

Career development critically influences professional trajectories, with early exposure impacting decisions (Howard et al., 2015; Kim & Lee, 2023). The aviation and maritime sectors are vital, yet underrepresented, fields contributing to global economic growth (Ziarati et al., 2011). These sectors struggle to attract young talent due to misconceptions and perceived barriers such as academic challenges and a lack of work-life balance (Sawitri & Creed, 2022; Yunusa et al., 2022). Understanding young learners' perceptions is essential to address workforce shortages and enhance career guidance strategies (Fasanmi, 2023; Moloele & Moeti, 2024; Sekerbayeva et al., 2023).

The aviation sector facilitates global connectivity by transporting people and goods worldwide while offering diverse career opportunities (Lent & Brown, 2019). The maritime sector, essential for global trade, includes careers in shipping and logistics (Ziarati et al., 2011). Despite offering various prospects, both sectors experience fragile workforce pipelines due to declining youth interest and gender disparities (Robinson & Diale, 2017).

In South Africa, both sectors contribute significantly to economic growth and trade, with the air transport industry generating substantial revenue (Njoya & Nikitas, 2020). The maritime industry also serves as a crucial economic driver, with major ports facilitating trade (SAMSA, 2020). Nonetheless, there is a lack of career awareness and interest among young South Africans, worsened by insufficient career education and exposure (Farao & Du Plessis, 2024).

Career decision-making is influenced by social factors, self-efficacy, and perceived outcomes (Lent et al., 2018). Misconceptions about the difficulty and financial barriers in the aviation and maritime fields deter young people (Guo & Hau, 2023). Addressing these misconceptions through early education is vital for cultivating a diverse workforce, particularly in South Africa, where skill shortages and youth unemployment persist (De Lannoy et al., 2018).

Current literature predominantly examines STEM and traditional professions, with limited focus on early perceptions of aviation and maritime careers (Ajayi & Udeh, 2024). Research in South Africa has primarily centered on general career barriers, neglecting comparative analyses between aviation and maritime interests (Farao & Du Plessis, 2024). This study aims to explore primary school learners' views on aviation and maritime careers, focusing on motivators, barriers, and educational needs. Utilising the Social Cognitive Career Theory and the Social Learning Theory, the research seeks to reveal the impact of early career exposure on interest and decision-making in these fields.

While previous research predominantly targets secondary and tertiary learners, this study uniquely contributes by focusing explicitly on primary school learners, providing early insights into career decision-making processes. By addressing this critical developmental stage, the research fills an important gap, deepening our understanding of how initial perceptions shape future career trajectories in the aviation and maritime fields. This study is guided by the following research questions:

1. What are the views of primary school learners about the careers expo focused on the aviation and maritime sectors that they attended?
2. What internal and external factors motivate or discourage learners from considering careers in the aviation and maritime sectors?
3. What social, educational, and environmental factors shape learners' career decision-making regarding aviation and maritime careers?
4. How can educational and sector interventions improve learners' interest in aviation and maritime careers?

LITERATURE REVIEW

Career Exposure, Perceptions, and Barriers in Aviation and Maritime Professions

Multiple factors, including early career exposure, societal influences, and perceived industry accessibility, shape career decision-making. Early exposure to careers plays a crucial role in reducing misconceptions, increasing career awareness, and improving learners' ability to make informed career choices (Lent et al., 2018). Structured career education, such as mentorship programmes, career fairs, and hands-on learning opportunities, has been shown to significantly enhance career interest and confidence among learners (Howard, Carlstrom, et al., 2015; Kim & Lee, 2023; Turgumbayeva et al., 2023). However, despite the advantages of early exposure, aviation and maritime careers remain underrepresented in career education programmes, limiting learners' ability to explore these fields effectively (Ajayi & Udeh, 2024).

Aviation careers are widely perceived as prestigious and financially rewarding**,** attracting learners who associate the industry with travel opportunities and technological advancements (Lent & Brown, 2019). However, high academic requirements, particularly in STEM subjects, along with expensive training programmes, often discourage learners from pursuing aviation careers (Jin, 2021). Additionally, gender disparities persist, with aviation being predominantly male-dominated limiting female representation due to societal stereotypes (Nur & Rahman, 2023; Yunusa et al., 2022). On the other hand, maritime careers, despite their crucial role in global trade, are often viewed as physically demanding and isolating (Ziarati et al., 2011). Concerns about work-life balance, long periods at sea, and minimal public awareness further deter learners from considering maritime professions (Ajayi & Udeh, 2024). Unlike aviation, maritime careers receive significantly less media exposure, making it harder for young learners to envision themselves in the industry (SAMSA, 2020).

Career motivations in both sectors are primarily driven by financial incentives, job security and global mobility opportunities (Guo & Hau, 2023). Research suggests that learners who have prior exposure to these sectors, either through family members or structured career education, are more likely to consider them as viable career paths (Howard, Flanagan et al., 2015). However, despite the attractiveness of these careers, substantial barriers remain. Aviation's heavy reliance on academic excellence in STEM subjects creates a perception of exclusivity, discouraging learners who lack confidence in these areas (Abe & Chikoko, 2020).

Conversely, maritime careers face the challenge of work-life balance concerns and physical demands**,** reinforcing negative perceptions of industry accessibility (Ajayi & Udeh, 2024). These findings align with Social Cognitive Career Theory (SCCT), which suggests that self-efficacy and perceived barriers significantly influence career decision making (Lent & Brown, 2019).

Addressing these challenges requires targeted career education interventions that bridge the gap between industry expectations and learner perceptions. Structured career programmes, such as aviation training simulations and shipyard visits, have been shown to increase interest in specialised career fields (SAMSA, 2020; Sibanyoni, 2021). However, many South African schools lack the necessary resources and partnerships to provide adequate career exposure in the aviation and maritime fields (Farao & du Plessis, 2024). Expanding career education programmes, integrating industry engagement, and leveraging media representation can significantly enhance learners' awareness and interest in these industries (Kim & Lee, 2023). By addressing barriers and improving accessibility, aviation and maritime careers can become more attractive, ensuring a steady pipeline of skilled professionals to meet future industry demands.

THEORETICAL FRAMEWORK

This study employs the Social Cognitive Career Theory (SCCT) and Social Learning Theory of Career Decision Making (SLTCDM) to elucidate the formation of career interests in the aviation and maritime sectors. The SCCT, developed by Lent, Brown and Hackett (1994), explores how individuals form career interests, make choices, and achieve performance outcomes. It emphasises the roles of self-efficacy beliefs, outcome expectations, and personal goals in career development. The SLTCDM, developed by Krumboltz et al. (1976), posits that career decisions result from an individual's learning experiences, which are influenced by genetic factors, environmental conditions, learning experiences and task approach skills. These theories provide a comprehensive framework for understanding how learners develop career interests and make career decisions.

The SCCT asserts that career decisions are shaped by self-efficacy, outcome expectations, and perceived barriers (Lent & Brown, 2019). Evidence indicates that learners perceiving aviation and maritime careers as financially rewarding yet academically demanding demonstrate reduced self-efficacy and lower career pursuit likelihood (Sawitri & Creed, 2022). The theory has been extensively applied to understand the career perceptions of high school and university students. For example, Kusumawati and Wahyuningsih (2020) examined the influence of the SCCT-based interventions on improving career decision making among vocational high school students, finding that enhancing self-efficacy through targeted programmes positively impacted students' career planning and choices. Additionally, the SCCT has been used to assess how social support systems, such as interactions with teachers and peers, influence students' self-efficacy and, subsequently, their career aspirations (Peng & Yang, 2020). Although the SCCT effectively elucidates the influence of outcome expectations on career interest, it inadequately addresses external socio-cultural elements, such as familial

expectations and regional employment patterns, which may significantly affect learners' decision making. The application of the SCCT to primary school learners is less prevalent, likely due to the theory's complexity and the developmental stage of younger children, who are still forming basic self-concepts and may not yet be considering specific career paths. However, foundational elements of the SCCT, such as building self-efficacy and outcome expectations, can be introduced at the primary level to foster early career awareness.

The SLTCDM highlights the significance of learning experiences and environmental factors in shaping career choices (Krumboltz et al., 1976). This paradigm posits that direct engagement with professionals, career interventions and mentorship can positively impact career decisions (Howard et al., 2015). The SLTCDM has been applied to understand how students' learning experiences shape their career decisions, demonstrating that exposure to role models and mentors during high school and university significantly influences students' career choices by shaping their perceptions of various professions. Studies have shown that students who engage in career exploration activities, internships and mentorship programmes develop greater self-efficacy and are more decisive in their career planning.

There is limited research applying the SLTCDM to primary school learners. This is likely due to the theory's focus on decision-making processes that are more relevant to older students who are closer to making career-related decisions. However, introducing diverse role models and engaging learning experiences at the primary level can lay the groundwork for future career exploration by broadening young learners' perspectives and interests. The SLTCDM presumes that positive exposure correlates with increased career interest; however, this study revealed that learners exposed to maritime careers remained dissuaded by work-life balance issues, suggesting potential constraints in the theory's predictive validity.

By utilising these theoretical frameworks, this study seeks to enhance career awareness initiatives to rectify learners' misconceptions and foster greater engagement in the aviation and maritime fields. Both the SCCT and the SLTCDM have been instrumental in understanding and enhancing the career perceptions and decision-making processes of high school and university students. While their direct application to primary school learners is limited, elements of these theories can inform early career education strategies by focusing on building self-efficacy, exposing students to diverse professions, and creating supportive learning environments.

Although the SCCT and the SLTCDM are traditionally applied to older cohorts, they are adaptable and relevant to primary school learners, given the foundational developmental processes active at this age. According to developmental theorists such as Piaget (1954) and Vygotsky (1978), primary school children are in critical phases of cognitive and social development where initial career-related concepts such as self-efficacy, observational learning, and outcome expectations begin to take root. Children at this stage are actively constructing their initial career aspirations and self-concepts based on tangible experiences, social interactions and direct exposure to role models. Therefore, these theories offer essential insights into early developmental processes shaping career aspirations.

Furthermore, developmental career literature emphasises the importance of early interventions, highlighting the long-term benefits of addressing misconceptions and career stereotypes at primary school age (Watson & McMahon, 2005). Introducing the core elements of the SCCT and the SLTCDM at this early stage is crucial because foundational beliefs about self-efficacy and career-related outcomes established during primary school significantly influence subsequent educational choices and career trajectories. Hence, employing these theories with primary learners not only addresses a gap in current career education research but also sets the stage for more informed, confident career decision-making as children progress into adolescence and beyond.

METHODOLOGY

Research Design

This research utilises a comparative qualitative design to investigate primary school learners' views, incentives and obstacles regarding aviation and maritime careers. A qualitative methodology was selected to facilitate a comprehensive exploration of participants' experiences and career perceptions, capturing subtleties not discernible through quantitative approaches (Creswell & Poth, 2018). Employing a comparative framework, the study delineates similarities and differences in career perceptions, enriching the understanding of early career decision making.

Population and Sampling

The research focused on primary school learners in South Africa who attended a career exhibition centred on aviation and maritime professions. A purposive sampling technique was employed to select participants who demonstrated interest or provided insights pertinent to aviation and maritime careers (Etikan et al., 2016). This methodology ensured that only learners with relevant perspectives were included, fostering meaningful comparisons. The participants came from primary schools in the Bojanala District of the North West province. A total of 17 participants from varied socio-economic backgrounds, both urban and rural contexts, were involved in the study. The sample comprised both female (n=10) and male (n=7) learners, aged 12 years old (n=8), 13 years old (n=8) and 14 years old (n=1) and were all in grade 7.

Data Collection Methods

Data were gathered through an open-ended qualitative questionnaire, enabling participants to articulate their thoughts, motivations, and concerns regarding aviation and maritime careers (Braun & Clarke, 2021). The questionnaires addressed key areas such as: i) General perceptions of aviation and maritime careers; ii) Motivations for considering these careers; iii) Barriers and concerns associated with these professions; and iv) Educational and career guidance needs. The open-ended structure permitted learners to provide comprehensive responses freely, thereby enriching the insights garnered. The data collection occurred in a structured environment that encouraged learners to contemplate their career aspirations and knowledge.

Data Analysis

Thematic analysis was employed to identify, examine, and interpret patterns within the qualitative data (Braun & Clarke, 2006). The analysis adhered to a six-phase framework for thematic analysis as follows: i) Engaging with all responses to develop an initial comprehension; ii) Identifying significant ideas, words and phrases concerning career perceptions, motivations, barriers, and guidance needs; iii) Aggregating similar codes into overarching themes and sub-themes; iv) Refining themes to ensure coherence and consistency; v) Finalising theme designations to accurately reflect participants' responses. Atlas.ti software facilitated the organisation and coding of data, ensuring a systematic approach to theme identification. The final themes were scrutinised and validated by an independent researcher to bolster the credibility and reliability of the findings.

Ethical Considerations

Ethical approval for the study was secured from the Research Ethics Committee of the institution under study before the commencement of the study, ensuring compliance with ethical research requirements. All the participants gave individual consent to participate in the study.

FINDINGS

The following findings provide insights into how young learners view aviation and maritime careers, highlighting the factors that motivate or deter them and suggesting ways to enhance interest through targeted interventions.

Theme 1: Perceptions of the Careers Expo

This theme reflects learners' views about the aviation and maritime careers expo showing that, for many, it was a turning point in terms of knowledge acquisition, interest formation and engagement with non-traditional careers.

Sub-theme 1.1: Positive Experiences and Learning

The learners consistently described the expo as engaging and enlightening, showing that exposure alone had a meaningful impact on shaping career curiosity. This early contact with professionals and career materials appears to demystify unfamiliar industries. The participants stated the following:

*"It was fantastic and I learned something that blew my mind and I finally chose a career that I have the interest in." (*P2, Maritime, Female)

*"They were very helpful and educational, we learned a lot about aviation." (*P7, Aviation, Female)

*"They were helpful and learned a lot about different careers and aviation."(*P12, Maritime, Male)

*"It was fun and educational." (*Participant 15, Aviation, Male)

These findings suggest a shift from vague or absent career awareness to concrete preferences, with the expo serving as a developmental catalyst.

Sub-theme 1.2: Career Awareness and Requirements

Beyond surface-level interest, learners absorbed detailed information about educational expectations, suggesting that primary learners can comprehend and retain academic planning content if delivered appropriately. This is what the participants said:

*" I learned that you need to be good at maths and science to join the SA Navy." (*P1, Maritime, Female)

*" I learned about the minimum marks and the age that you can start to work." (*P6, Maritime, Male)

*"I learned that when you want to be a pilot, you have to pass with 75%." (*P11, Aviation, Female)

*"We learnt that every career that I saw was about environment, flight attendants and aeroplanes and all that and I have to finish matric first." (*P14, Aviation, Female)

These findings show that learners are beginning to link academic performance with future aspirations, an essential foundation for career planning.

Theme 2: Motivators for Pursuing Aviation and Maritime Careers

This theme encapsulates the factors that appeal to learners when imagining themselves in these fields, namely, material rewards, status and excitement, often intertwined with deeply personal motivations.

Sub-theme 2.1: Financial and Educational Benefits

Financial incentives, such as salaries and bursaries, are particularly persuasive motivators for pursuing maritime careers, even at a young age. The repeated reference to paid training indicates that learners are already weighing opportunity costs.

*"You get a free home, free bursary if you are a student and you get paid even if you are training." (*P1, Maritime, Female)

*"You can get paid during training." (*P4, Maritime, Male)

"

“You can explore a lot of careers there and get paid while training” (P12, Maritime, Male)

These findings suggest that learners interpret financial incentives as both opportunity and security, which may be reflective of broader socioeconomic aspirations within their communities.

Sub-theme 2.2: Travel and Adventure

The opportunity to travel emerged as a prominent theme for aviation careers, suggesting that learners associate these careers with excitement, global experiences and personal freedom.

"I will be travelling the world and sometimes you can bring your family." (P3, Aviation, Female)

"Travelling the world and you get to travel with your family." (P7, Aviation, Female)

"The thing that I found most interesting in that you can travel." (P10, Aviation, Female)

"I found that when you are a flight attendant, you can fly for free." (P13, Aviation, Female)

These findings indicate that the dreams that learners have about the aviation and maritime careers are aspirational and demonstrate how learners visualise careers not just as jobs but as lifestyles.

Theme 3: Barriers and Concerns About Aviation and Maritime Careers

Despite their appeal, aviation and maritime careers are not without perceived drawbacks. Learners expressed concern over work-life balance, physical demands and emotional challenges.

Sub-theme 3.1: Family Separation and Work-Life Balance

The most frequently mentioned concern was the separation from family, a significant issue for young learners who are still highly dependent on home relationships. The participants stated the following:

"You can take a lot of time without seeing your family, and it's a risk to protect the country." (P1, Maritime, Female)

"You left (leave) your family behind. Not getting enough time to sleep." (P5, Aviation, Female)

" You cannot see your family" (P6, Maritime, Male)

These findings reflect a developmental stage where emotional safety and attachment remain central, and careers that disrupt these are viewed negatively.

Sub-theme 3.2: Physical and Emotional Challenges

In addition to emotional hardship, learners acknowledged the strenuous nature of the work, citing sleep deprivation, fear and workload. The participants uttered the following:

"That in some careers you would not get rest, for example, a pilot. You don't get enough rest/sleep." (P2, Aviation, Female)

"You cannot see your family." (P4, Maritime, Male)

"Working for long hours with less resting or sleeping time." (P9, Aviation, Male)

" Working for long hours with less resting or sleeping time and working away from your family for long periods of time" (P16, Maritime, Male)

These findings show early awareness of occupational stressors and highlight the importance of realistic portrayals in career exposure.

Theme 4: Educational and Industry Interventions Needed

This theme relates to the learners' suggestions for improving career awareness and addressing concerns.

Sub-theme 4.1: Need for More Information and Guidance

Learners voiced strong opinions on the types of support they need from education systems and industries to better understand and prepare for these careers.

"I would love to know more about the SA Navy." (P2, Maritime, Female)

" I would like to know how much they get paid and how many years you are schooling for this career." (P5, Aviation, Female)

"How many hours will you be working if you are a flight attendant, and which subjects do you need to be good at?" (P10, Aviation, Female)

" How is it like to be in the Navy." (P14, Maritime, Female)

This theme reflects a gap in systematic career guidance and the appetite among young learners for concrete, actionable information.

Sub-theme 4.2: Addressing Safety and Practical Concerns

The learners' concerns extended to practical issues such as safety, roles in national defence, and what happens in high-risk events.

"I would like to ask if you are die are they taking you (back to the base) or are they leaving you there (at sea)?" (P4, Maritime, Male)

I would like to visit an institution that teaches you about flight safety (P16, Aviation, Male)

"Is that when you are in the Navy, what do you protect us from, and who are these people who want to get into our country?" (P7, Maritime, Female)

"The air transport having problems in the air or crashing into other planes." (P17, Aviation, Male)

These questions reveal a deeper curiosity about the risks of service-oriented careers and show that learners are not blindly aspirational; they are critically engaged.

DISCUSSION

The study's findings substantiate key constructs within the Social Cognitive Career Theory (SCCT) (Lent et al., 1994; Lent & Brown, 2019) and the Social Learning Theory of Career Decision-Making (SLTCDM) (Krumboltz et al., 1976), particularly the roles of self-efficacy, outcome expectations, learning experiences and environmental supports. Across the themes, learners' motivations, concerns and knowledge needs align with these frameworks, especially regarding early exposure to careers and the internalisation of perceived barriers or facilitators.

The learners expressed overwhelmingly positive perceptions of the career expo, describing it as "fun," "educational," and "mind-blowing." These responses align with the SLTCDM's emphasis on the importance of experiential learning in shaping aspirations (Howard et al., 2015; Watson & McMahon, 2020). Exposure to real-world professionals and career materials appears to trigger meaningful reflection and decision-making, even among primary school learners. The findings on career awareness and requirements also confirm the SCCT's construct of career-related knowledge and perceived academic requirements as central to the development of career interests, with learners naming specific school subjects and performance thresholds needed for their chosen careers.

The motivators for pursuing aviation and maritime careers demonstrate how outcome expectations, particularly financial gain in relation to maritime careers and travel opportunities in relation to aviation careers, function as strong motivational factors. Learners associated careers in aviation and maritime sectors with global mobility, economic upliftment and lifestyle prestige, echoing the SCCT's proposition that expected outcomes directly influence interest formation (Guo & Hau, 2023; Sawitri & Creed, 2022). These motivations are particularly relevant in the context of rural and low-income backgrounds that the learners come from, where

economic aspirations are often intertwined with educational and career pathways (Kim & Lee, 2023).

However, these careers were also perceived as emotionally and physically taxing. The learners identified family separation and work-life balance issues as major deterrents. Learners repeatedly voiced concern about being away from family for extended periods, an early expression of emotional labour and work-family conflict seen in adult studies (Parks, 2021). The learners also focused on physical and emotional challenges, including fatigue, fear of heights and job-related risk. This affirms the SLTCDM's proposition that negative learning experiences or perceived risks can discourage engagement (Krumboltz et al., 1976). These concerns also align with research showing that young people self-exclude from careers perceived as stressful, dangerous or academically unattainable (Woods et al., 2024).

The educational and industry interventions needs identified by the learners reinforce the need for targeted career guidance interventions. Their questions about training timelines, subject choices, job duties and application processes indicate the learners' desire for more structured and detailed career information. This shows their readiness for early intervention, especially through mentorship and school-industry partnerships (Robinson & Diale, 2017; Charlesworth & Banaji, 2019). The findings reveal that learners are not passive receivers of information; they critically interrogate safety issues, job realism and role expectations. These findings support the growing consensus that career education should not only excite learners but also prepare them for complexity and risk awareness (Schoon & Parsons, 2022).

A notable and unexpected finding was the minimal reference to gendered stereotypes. While previous research highlights that aviation and maritime careers are often male-dominated (Yunusa et al., 2022), both boys and girls in this study expressed strong interest in these fields, suggesting that gendered career boundaries may be weakening among younger cohorts potentially due to increased gender mainstreaming in career education and STEM promotion campaigns (Owusu et al., 2021).

Finally, the absence of peer influence, as noted in the SLTCDM, was also surprising. The data suggest that parental and familial influence remains dominant at the primary level, consistent with developmental psychology literature (Piaget, 1954; Vygotsky, 1978) and recent South African studies showing that rural families play a decisive role in children's early career socialisation (Makola & Tabane, 2023).

Implication for Practice and Policy

The findings of this study have significant implications for both practice and policy. In terms of practice, it is crucial to enhance career exposure initiatives by implementing structured career awareness programmes, such as aviation and maritime-focused career days, site visits, and mentorship opportunities. Schools, educational institutions and industry stakeholders must collaborate to ensure learners gain a comprehensive understanding of these career fields. Additionally, targeted career guidance is essential to address the academic and physical barriers learners associate with aviation and maritime careers. Schools should integrate career

exploration activities into the curriculum, emphasising STEM-subject readiness for aviation and psychosocial preparedness for maritime careers. Given the significant role of parental influence in career decision-making, it is imperative to involve parents and guardians in career education through workshops and career discussions, enabling them to guide and support learners effectively. Furthermore, concerns regarding work-life balance in aviation and maritime careers should be addressed by industry leaders through flexible scheduling, mental health support, and career transition programmes to improve workforce retention and attraction. The study also highlights the importance of bridging gender gaps and fostering diversity within these industries. Expanding initiatives that promote the inclusion of women in STEM and technical fields will ensure that young girls see role models in aviation and maritime professions, helping to break traditional stereotypes.

From a policy perspective, integrating aviation and maritime career education into the national curriculum is essential. Policymakers should advocate for structured career education modules in primary and secondary schools, particularly in the North-West province, to equip learners with industry-relevant knowledge. Additionally, strengthening industry-academia partnerships is vital, as collaboration between government agencies, educational institutions, and aviation and maritime sectors can create structured career pipelines through scholarships, internships and apprenticeships. Financial incentives for STEM education should be expanded to address the perceived difficulty of STEM subjects, with increased funding for tutoring programmes, bursaries and teacher training to better prepare learners for these careers. The lack of visibility of maritime careers compared to aviation calls for stronger media and public awareness campaigns. Investing in television, radio and digital platforms to promote diverse maritime career opportunities will help generate more interest in the sector. Lastly, rural learners in the North-West province often face limited access to career information and industry engagement. Policies should focus on expanding career awareness programmes to rural and underprivileged areas through mobile career exhibitions, digital career guidance platforms and regional career outreach initiatives. These targeted interventions will play a crucial role in ensuring a well-informed, diverse and skilled workforce capable of sustaining the aviation and maritime sectors.

CONCLUSION

This study examined primary school learners' perceptions of aviation and maritime careers in the North-West province of South Africa, with a focus on the factors influencing their career decision making. The findings highlight that learners generally perceive aviation careers as prestigious and financially rewarding, while maritime careers are viewed as physically demanding and less visible. The study also revealed that career exposure, academic readiness, and industry visibility play critical roles in shaping learners' aspirations. While financial incentives and travel opportunities serve as key motivators, barriers such as perceived academic

difficulty, physical demands, work-life balance concerns and limited career awareness hinder interest in these fields.

In response to the research questions, the study found that learners viewed the career expo as an informative and engaging platform that broadened their understanding of aviation and maritime careers. Internal and external factors influencing career decision making included financial benefits, travel opportunities, academic requirements, industry risks and family considerations. The study also confirmed that educational influences, such as subject prerequisites and career guidance, alongside social factors like parental expectations, shape career aspirations. Additionally, learners suggested that career education, industry exposure, and mentorship programmes would enhance their interest in aviation and maritime careers.

This study makes a significant contribution to the career development literature by providing insights into how young learners perceive careers in underexplored industries such as maritime and aviation. It expands on the Social Cognitive Career Theory (SCCT) and the Social Learning Theory of Career Decision Making (SLTCDM) by demonstrating how industry visibility, career exposure and parental influence impact early career aspirations. The study also offers practical recommendations for improving career education and industry outreach to enhance learners' understanding and interest in these career pathways.

However, the study has certain limitations. The sample was limited to primary school learners in the North-West province, which may not fully represent perceptions in other regions of South Africa. Additionally, as the study relied on responses from a single career expo, learners' perceptions might have been influenced by the specific presentations and exposure provided during the event. It is important to acknowledge that the career expo setting itself may have influenced learners' responses. The interactive and stimulating nature of expos often creates immediate enthusiasm, possibly inflating positive perceptions due to novelty and excitement rather than a thorough understanding of career realities. Learners’ immediate post-expo feedback might also reflect peer influences or social desirability bias. The study also did not extensively examine long-term career tracking to assess how early exposure influences later career decisions.

Future research should consider a longitudinal study to track learners' career development over time, examining whether early exposure to aviation and maritime careers leads to sustained interest and eventual career entry. Additionally, further studies should explore the role of peer influence in career decision-making among older learners and investigate how digital career guidance tools can enhance awareness and engagement in underrepresented industries. Expanding research to other provinces and comparing urban and rural learners' career perceptions would also provide a more comprehensive understanding of how different contextual factors shape career aspirations.

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