

## Parents' and Teachers' Views about Suitable Future Jobs for Learners with High-Functioning Autism at a Special School

### Pandangan Orang Tua dan Guru tentang Pekerjaan Masa Depan yang Cocok untuk Siswa Autisme IQ di atas rata-rata di Sekolah Luar Biasa

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**Abstract:** There appears to be limited information regarding studies exploring parents' and teachers' views on appropriate jobs for learners with high-functioning autism (HFA). This study is significant because its purpose was to explore parents' and teachers' views on suitable jobs for learners with HFA at a special school in Johannesburg, South Africa. This study also sought to explore parents' and teachers' opinions on vocational methods for supporting learners with HFA. An interpretive paradigm was used as part of the qualitative research methodology. The data were generated from 12 selected participants using purposive sampling, including six parents whose children had HFA and six teachers of learners with HFA from various phases of the school. Semistructured interviews and document analysis were used to generate the data. The data were analyzed via thematic data analysis. The study revealed that teachers and parents of learners with HFA see jobs such as waiters, athletes, swimmers, soccer players, basketball players, handball players, baking, cooking, drawing, artists, gardening, carpentry, building, plumbing, car-washing, driving, building websites, filing, laminating, playing video games, emailing, printing, and photographing as appropriate future jobs for learners with HFA. The findings revealed that vocational methods that are useful for developing jobs that are perceived as suitable for learners with HFA are gardening, sewing, cooking, selling food, and computer training through vocational shadowing involving multiple stakeholders. The study highlights the importance of a collaborative approach among stakeholders in developing individualized support plans for learners with HFA, focusing on identifying, nurturing, and placing them in suitable vocational roles for lifelong employment. Consequently, special education curricula for learners with HFA in South Africa should prioritize vocational skills and be collaboratively designed by all stakeholders.

**Keywords:** Autism Spectrum Disorders; Parents; Teachers; High-Functioning Autism; Jobs

**Abstrak:** Tampaknya terdapat keterbatasan informasi mengenai penelitian yang mengeksplorasi pandangan orang tua dan guru mengenai pekerjaan yang sesuai untuk pelajar dengan autisme fungsi tinggi (HFA). Penelitian ini penting karena tujuannya adalah untuk mengeksplorasi pandangan orang tua dan guru mengenai pekerjaan yang cocok untuk pelajar dengan HFA di sekolah khusus di Johannesburg, Afrika Selatan. Penelitian ini juga berupaya untuk mengeksplorasi pendapat orang tua dan guru tentang metode

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kejuruan untuk mendukung pelajar dengan HFA. Paradigma interpretatif digunakan sebagai bagian dari metodologi penelitian kualitatif. Data dihasilkan dari 12 peserta yang dipilih dengan menggunakan purposive sampling, termasuk enam orang tua yang anaknya menderita HFA dan enam guru peserta didik dengan HFA dari berbagai tahapan sekolah. Wawancara semi terstruktur dan analisis dokumen digunakan untuk menghasilkan data. Data dianalisis melalui analisis data tematik. Studi tersebut mengungkapkan bahwa guru dan orang tua siswa dengan HFA melihat pekerjaan seperti pelayan, atlet, perenang, pemain sepak bola, pemain bola basket, pemain bola tangan, membuat kue, memasak, menggambar, seniman, berkebun, pertukangan kayu, bangunan, pipa ledeng, cuci mobil, dan lain-lain. mengemudi, membuat situs web, mengarsipkan, melaminasi, bermain video game, mengirim email, mencetak, dan memotret sebagai pekerjaan masa depan yang sesuai untuk pelajar dengan HFA. Temuannya mengungkapkan bahwa metode kejuruan yang berguna untuk mengembangkan pekerjaan yang dianggap cocok bagi peserta didik dengan HFA adalah berkebun, menjahit, memasak, menjual makanan, dan pelatihan komputer melalui bimbingan kejuruan yang melibatkan banyak pemangku kepentingan. Studi ini menyoroti pentingnya pendekatan kolaboratif di antara para pemangku kepentingan dalam mengembangkan rencana dukungan individual untuk pelajar dengan HFA, dengan fokus pada identifikasi, pengasuhan, dan menempatkan mereka pada peran kejuruan yang sesuai untuk pekerjaan seumur hidup. Oleh karena itu, kurikulum pendidikan khusus untuk pelajar penderita HFA di Afrika Selatan harus memprioritaskan keterampilan kejuruan dan dirancang secara kolaboratif oleh seluruh pemangku kepentingan.

**Kata Kunci:** Gangguan Spektrum Autisme; Orang tua; Guru; Autisme Berfungsi Tinggi; Pekerjaan



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## Introduction

Several people with autism spectrum disorders (ASD) remain unemployed, and among those who are employed, many are assigned occupational roles that do not align with their abilities, credentials, and competencies (Davies et al., 2024). According to Harris (2018)'s Ozdemir and Koç (2023)'s and Mushambi et al.'s (2024) views, ASD is understood as a lifelong neurological condition that can negatively impact the employment options of those suffering from it. Researchers such as Nazeer et al. (2019) indicated that information about people with autism first emerged in 1943 through a study conducted by Leo Kanner and in 1944 through another study conducted by Hans Asperger in the United States of America (USA). The descriptions of Leo Kanner and Hans Asperger did not reveal sufficient information about the causes and potential treatments for ASD. Factors such as food, genetics, preterm birth, narcotics, alcohol, and birth problems may all contribute to the development of ASD (Harris, 2018; Ozdemir & Koç, 2023). Throughout history, people have been misled by myths and misconceptions regarding the causes and treatments for ASD (AlBatti et al., 2022); (Ghirardi et al., 2021). According to Kapp (2023), people believe that witchcraft, sorcery, bad spirits, and God's punishment for family sins are all causes of autism. Kapp (2023) and Morris-Rosendahl and Crocq (2020) showed that people with impairments, particularly those exhibiting symptoms of high-functioning autism (HFA), were taunted, ridiculed, and excluded from engaging with others in various aspects of society. This discrimination may have stemmed from the limited information available to all people about how individuals with ASD behave, interact, and socialize with others and among themselves in various societal settings (Ghirardi et al., 2021; Kapp, 2023; Porter et al., 2023).

It is a concern that people with ASD exhibit inappropriate behaviors when appropriate behavior is expected (AlBatti et al., 2022; Morris-Rosendahl & Crocq, 2020; Ozdemir & Koç, 2023; Porter et al., 2023). These actions may include pinching, scratching, humming, laughing, and sobbing for no apparent reason. They may also involve screaming, removing clothes and shoes in class, and throwing tantrums. In some cases, such acts may infringe on learners' and teachers' rights to a conducive learning and teaching environment. Consequently, teaching and learning activities may be disrupted, as teachers and students may feel uncomfortable participating in lessons characterized by inappropriate behaviors. In light of this, ASD is characterized in this study as an incurable and lifelong developmental disorder marked by communication, sensory, social relations, and behavioral deficiencies that could jeopardize learners diagnosed with this condition when functioning in a teaching or learning environment. According to Rao and Beidel (2009), Subocz and Morrell (2021), and Mushambi et al. (2024), learners with ASD classified as having HFA typically have higher intelligence quotients than average. Clavenna-Deane (2010) and Nitzberg (2020) found that these students often possess exceptional oral communication skills, social interaction abilities, and appropriate behaviors. Furthermore, Clavenna-Deane (2010), Subocz and Morrell (2021), and Nitzberg (2020) argue that learners with HFA demonstrate a high level of intellectual ability, leading their teachers and parents to believe that they can pursue specific career paths.

This study identifies learners with HFA as those who have effective social connections, outstanding verbal communication skills, and strong academic and vocational information processing abilities. This may lead instructors and parents to believe that they can identify suitable future jobs for these students. According to Savickas (2013), jobs are a series of occupations that individuals hold throughout their working lives. Similarly, Rudolph et al. (2019) argue that jobs refer to the time spent working throughout one's life to earn money for essentials. According to Beheshti et al. (2022) and Rao and Beidel (2009), parents of learners with HFA, as biological or legal guardians, are responsible for all aspects of their lives, including purchasing food, medication, paying school fees, buying clothing, arranging accommodations, toys, transporting, and hiring nannies. Beheshti et al. (2022) noted that these parents face numerous challenges due to the specialized help required to manage learners with HFA in all aspects of their lives. If they have a child with HFA who struggles with communication, social contacts, and behavior, such parents may be excluded from other social and economic activities in society (Beheshti et al., 2022; Rao & Beidel, 2009). A parent or legal guardian of a learner with HFA may not feel safe traveling to work or attending community events and may leave a learner with HFA who has behavioral issues at home alone.

Moreover, teachers of learners with HFA are specialists who work in educational institutions such as special schools to provide information and skills to learners with HFA (Mushambi et al., 2024). Teachers and parents may believe that students with HFA are suitable for specific jobs in various industries. According to Ozdemir and Koç (2023), parents suggest jobs in various industries as suitable future careers for learners with HFA, including police officers, educators, computer engineers, doctors, singers, teachers, tailors, and weavers. Grandin (2006), in the United States of America (USA), reported that instructors and parents of students with ASD favored art, horseback riding, computer programming, developing animal equipment, music electronics, and science as potential occupations for students with ASD. In the United Kingdom (UK), Wheelwright and Baron-Cohen (2001) found that medical computing, engineering, arts, media, accounting, science, and teaching are all considered appropriate potential jobs for students with ASD by teachers and parents. Similarly, in an Australian study by Neary et al. (2015), parents indicated that their preferred job expectations for students with ASD include waiters, sales assistants, sales workers, community and personal service workers, grocery clerks, and computer gaming, which are semiskilled positions that learners without limitations may overlook. In a similar study, Robinson and Smith (2010) found that parents and instructors consider jobs such as distributing

flyers in newspapers, magazines, and pamphlets to be meaningful for students with ASD. The findings above regarding parents' and teachers' views on suitable jobs for learners with ASD have emerged from studies conducted in various developed countries. Despite these views, there is a lack of evidence from international, national, and local studies that specifically capture the perspectives of parents and teachers on future employment opportunities for learners with HFA from a special school standpoint. This gap underscores the importance of this study, which aims to investigate the opinions of parents and teachers on suitable future jobs for learners with HFA in a special school setting in Johannesburg, South Africa. This study also sought to explore parents' and teachers' opinions on vocational methods for supporting learners with HFA. It also aimed to propose a vocational guidance model that can support parents' and teachers' preferred jobs for learners with HFA.

### ***Vocational counseling and guidance developmental methods (VCGDMs)***

This study utilized vocational counseling and guidance and developmental methods (VCGDMs) to enhance our understanding of jobs perceived by teachers and parents as suitable for learners with HFA. A study by Fujino and Sato (2022) in Japan explained that VCGDMs are important because they provide teachers and parents with relevant information to identify and develop appropriate jobs for learners with special education needs. When teachers and parents collaborate, they may consider future jobs for learners with HFA for development based on these views. The findings of Heinze (2019) and Robinson and Smith (2010) show that VCGDMs involve multiple stakeholders, including supervisors, coworkers, and school personnel, who aim to help learners with ASD pursue future jobs identified as suitable by their teachers and parents. According to Fujino and Sato (2022), the involvement of multiple stakeholders in VCGDMs is crucial for their success, likely due to the communication, social interaction, and behavioral challenges faced by learners with disabilities such as HFA (Mushambi et al., 2024). This necessitates the cooperation of various individuals to help these learners meet their parents' and teachers' job expectations. Studies by Egilson et al. (2018), Heinze (2019), and Savickas (2013) suggest that teachers and parents should implement VCGDMs to support learners with HFA in pursuing their desired future jobs. Learners may engage in household chores, watching TV, and using computers to develop skills such as cleaning, TV broadcasting, computer programming, or computer specialist roles. Clavenna-Deane (2010) found that modeling or drama plays a significant role in determining the future jobs of interest for learners with HFA by parents and teachers. By role-playing as doctors, nurses, teachers, or engineers, learners can acquire skills to advance toward their parents' and teachers' preferred job fields. It is recommended that parents and teachers utilize critical VCGDMs involving reading, storytelling, and games to support learners with ASD in developing future jobs identified by their parents and teachers, as suggested by Savickas (2020) and Savickas (2013). Engaging learners in reading, games, and stories related to certain jobs can help them acquire the knowledge and skills necessary for career interest development. VCGDMs are essential because they provide information to parents and teachers on guiding learners toward specific future jobs. As part of job counseling and guidance, teachers and parents can discuss future job options with learners with HFA at home, school, and other job development events. However, there is a lack of information on studies conducted on parents' and teachers' perspectives on suitable future jobs for learners with HFA in South Africa. Therefore, this study is crucial because it aims to explore teachers' and parents' opinions on suitable future jobs for learners with HFA at a special school in Johannesburg.

### ***Theoretical Framework***

The study utilized Savickas's (2013) job construction theory because it explains how people choose their jobs through social interactions, as demonstrated in studies by Rudolph et al. (2019) and Savickas (2020). When people interact and engage in job-related activities and conversations, decisions

regarding suitable jobs for learners with HFA are likely to be made. As teachers and parents engage with learners with HFA, they are likely to consider which future jobs are appropriate for them. Job construction theory was applied in this study, as it also describes how learners select future jobs by participating in various practical activities, as outlined by Savickas (2020) and Savickas (2013). Practical activities such as drama, imitation, storytelling, modeling, and role-playing, as discussed in Del-Corso and Rehfuss (2011), Rudolph et al. (2019), Savickas (2013), and Watson (2013), are among the methods used. Therefore, when teachers and parents involve learners with HFA in activities such as job storytelling, dramatization, and modeling related to different professions, they are likely to gain insight into which jobs are suitable for these learners. For example, if a teacher, parent, or other individual notices that a learner with HFA excels in storytelling at school, at home, or in social settings, they may conclude that this learner could pursue a career as a storyteller or comedian. The importance of job construction theory is also evident in its focus on identifying appropriate jobs for learners by involving them in a variety of practical activities, such as household chores, reading, playing games, and other activities relevant to their future careers, as highlighted in studies by Rudolph et al. (2019), Savickas (2020), and Savickas (2013). In essence, a teacher or parent may recognize a learner with HFA's potential to become a cleaner by involving them in tasks such as sweeping and mopping floors. Studies by Del-Corso and Rehfuss (2011) and Savickas (2020) confirm that job guidance and counseling are essential components of job construction theory. As a result, through job-related conversations with parents and teachers, useful information about suitable jobs for learners with HFA and how to support their development in those roles can be shared.

## Method

### *Research Ethics and Consent*

The University of Johannesburg's Ethics Committee (Ethics clearance number Sem 2-2020-057), the Gauteng Department of Education, the District Director where the study site is located, and the principal of the special school where the study was conducted granted permission to proceed with this study. Once permission was granted by the above authorities, prospective participants were invited to voluntarily participate in the study. Following this step, participants were provided with information sheets, consent forms, and interview schedules. Thus, the study adhered to several ethical principles, including informed consent, confidentiality, privacy, protection from harm, and voluntary participation (Mohd Arifin, 2018; Newman et al., 2021; Thunberg & Arnell, 2022). To ensure privacy and confidentiality (Mohd Arifin, 2018; Newman et al., 2021; Thunberg & Arnell, 2022), participants were assured that their real names would not be disclosed to anyone. To uphold the ethical principle of protecting participants from harm (Mohd Arifin, 2018; Newman et al., 2021), participants were not asked questions that might have affected them negatively during data collection. In terms of voluntary participation, participants were given the option to continue or withdraw their participation at any time without consequences, as recommended by Newman et al., (2021).

### *Research Process and Approach*

As described by Adler (2022), research is the process of uncovering new knowledge and skills. The perspectives mentioned above may pertain to exploring new knowledge about issues faced by people in various situations. Basias and Pollalis (2018), Scotland (2012) and Vasquez (2013) suggest that methodology refers to the methods or plans implemented by researchers before embarking on research to address a wide range of identified problems in different environments. This study utilized a qualitative research approach. We opted for a qualitative research method in this study because its objectives include providing a deep understanding of meaning and analyzing data through words and observations (Basias & Pollalis, 2018; Olmos-Vega et al., 2023; Pyo et al., 2023). Qualitative research is also significant because it emphasizes interactions between researchers and research participants during data collection (Adler,

2022; Olmos-Vega et al., 2023). These perspectives may apply to the interaction between researchers and participants during facilitated focus groups or face-to-face semistructured interviews. Therefore, when researchers engage with participants through semistructured interviews or focus groups, participants have the opportunity to share their narratives on the explored topic (Adler, 2022; Olmos-Vega et al., 2023).

Qualitative research employs a variety of data generation techniques (Braun et al., 2021; Das & Devi, 2023). Using multiple data generation methods is known as triangulation in qualitative research, as stated by Adler and Enworo (2023). This study adopted a qualitative research approach because, according to Adler et al. (2023) and Pyo et al. (2023), data should be observed, described, and interpreted rather than solely relying on numbers. The study also utilized the interpretive paradigm, which is a theoretical and practical strategy for addressing specific societal problems (Das & Devi, 2023). An interpretive paradigm views the world as an abstract, ever-changing truth with multiple levels of meaning and perspectives, based on philosophical assumptions regarding ontology, epistemology, and axiology (Creswell & Poth, 2018). Epistemology involves the search for new knowledge about studied problems in various societies, while ontology uncovers the truth about identified and explored issues. Axiology explores concepts that researchers believe others should know (Aliyu et al., 2015; Vasquez, 2013). In this study, a case study design was employed to study individuals, groups, institutions, or multiple institutions, focusing on issues related to learners with educational needs (Parker, 2016). To generate the data for this study, semistructured interviews and document analysis were used as data generation methods. Semistructured interviews allowed participants to express their perspectives in a face-to-face format with the researcher, benefiting both parties through open-ended questioning. Document analysis, defined by Bowen (2009) as the examination of printed or electronic documents, was also utilized to extract information from various sources, such as magazines, newspapers, television programs, and websites related to the research topic.

#### ***Research Participants and Procedures***

Purposive sampling was used in this study to select 12 participants, consisting of six teachers and six parents of learners with HFA. Purposive sampling was employed in light of (Creswell & Poth, 2018) belief that participants should be selected based on their willingness to participate rather than being coerced to participate. Parent Participant 1 is a 35-year-old female, Swati, and Black African. Parent Participant 2 is a 30-year-old female, Sotho, and Black African. Parent Participant 3 is a 33-year-old female, Zulu, and Black African. Parent Participant 4 is a 33-year-old female, Xhosa, and Black African. Parent Participant 5 is a 35-year-old female, Zulu, and Black African. Parent Participant 6 is a 35-year-old female, Sotho, and Black African. Teacher Participant 1 is a 52-year-old female, Tswana, and Black African. Teacher Participant 2 is a 40-year-old female, Pedi, and Black African. Teacher Participant 3 is a 50-year-old male, Shona, and Black African. Teacher Participant 4 is a 49-year-old male, Ndebele, and Black African. Teacher Participant 5 is a 49-year-old female, Zulu, and Black African. Teacher Participant 6 is a 42-year-old female, Zulu, and Black African. In this study, the data were analyzed using Braun and Clarke (2013) seven steps of thematic analysis. Transcribing, coding, categorizing, and naming themes were the steps followed in the thematic analysis of the data. The next step was to present the results of the study in terms of themes and subthemes. The subthemes contained verbatim transcripts of the participants. The results are presented, followed by a discussion of the findings in relation to the literature reviewed and the theoretical framework used in this study. Once the discussion of findings was finalized, a professional editor was hired to edit the study. In the final stage, the participants were sent for a final examination.

The foundations of trustworthiness, which are transferability, dependability, credibility, and confirmability (Adler, 2022; Enworo, 2023), were taken into consideration. Essentially, transferability is the process of transferring findings from one setting to another (Adler, 2022; Enworo, 2023). To ensure transferability, researchers should explain the procedures used in their studies (Braun et al., 2021). To

ensure transferability, the findings in this study were posted online for people around the world to access. The process of verifying and confirming that findings reflect data generated from participants is known as confirmability (Braun et al., 2021; Enworo, 2023). This study adhered to confirmability by sending participants the transcripts so that they could confirm that what was in the transcripts matched exactly what was said during data collection. Thematic analysis began after the participants verified, confirmed, and returned their data to the researchers. Credibility is the process of confirming that the research was conducted properly and that the results of the study can be trusted (Bhangu et al., 2023; Enworo, 2023). To establish credibility, a variety of data collection strategies were employed (Bhangu et al., 2023; Creswell & Poth, 2018). The use of semistructured interviews and document analysis led to credibility in this study. According to Creswell and Poth (2018) and Enworo (2023), dependability is a process of explaining in detail all steps undertaken when conducting a study so that other researchers can replicate the findings. Hence, all procedures in this study were described in detail to achieve dependability.

## Findings

In this study, the data were analyzed using Braun and Clarke (2013) steps of thematic analysis. Below are the findings of this study organized into themes and subthemes.

### **Theme 1: Arts and crafts jobs**

This study shows that parents and teachers prefer jobs in arts and crafts as suitable future jobs for learners with HFA in special schools in South Africa.

#### **Subtheme 1: Drawing and cutting and pasting**

According to this study, parents and teachers of learners with HFA believe that arts and craft skills such as drawing and coloring are suitable future careers for learners with HFA. The following transcripts reflect the above views:

**Teacher Participant 1:** *The parent says the child (learner with HFA) likes Art, and as a teacher, I see, I notice this child (learner with HFA) likes Art.*

**Parent Participant 2:** Others know how to draw and can do that. Yes! That is what I have noticed. Even Art, drawing. Yeah! He (my son) likes drawing cars. So, I think one of those cars is the one he wants to buy when he grows up because he does not go for small bikes. He goes for big ganda-gandas (the big cars).

**Parent Participant 4:** *No! What they (teachers) discovered is that he (learner with HFA) is good when it comes to drawing and cutting. He likes drawing and cutting pictures and pictures of some stories, but they (teachers) never discovered it because they don't have the resources.*

**Parent Participant 5:** *Some they (learners with HFA) like to draw cartoons, and he is very good. Since he was two years old, my son started to write honestly. He was drawing cartoons. Sometimes, he would draw what they call these things, the jam and stuff.*

#### **Subtheme 2: Beading and knitting or sewing**

The findings of this study indicate that parents and teachers of learners with HFA view skills related to arts and crafts such as knitting and beading as relevant future careers for learners with HFA. Below are excerpts that capture the above views:

**Teacher Participant 1:** *Because they (learners with HFA) are good at it not only Art. They (learners with HFA) excelling beading, others they do not show, they do not show interest in anything, but with time, I have noticed that, with time as and when I introduce new skills, they tend to excel in those skills. I focus on particular skills.*

**Teacher Participant 4:** *Some of the children (learners with HFA), I mean, some of the parents know what their children (learners with HFA) aspire for. Some, maybe they know that my child (learner with HFA) likes maybe, he likes knitting, he likes stringing beads.*

**Parent Participant 1:** *In class, they (the teachers) say she loves knitting and she loves it. With low support, they can try knitting work.*

**Parent Participant 2:** *They are good when it comes to these things and then, the girls, the sewing depending on which category of the ASD will choose.*

### **Theme 2: Information and communication technology jobs**

In this theme, secondary research questions were addressed, such as: What are parents' views about suitable future jobs for learners with HFA? What are teachers' views about suitable future jobs for learners with HFA?

#### **Subtheme 1: Administration, receptionists or messengers**

In this study, teachers and parents suggested that jobs in the ICT industry, such as receptionists, messengers, or administrators, are suitable for learners with HFA. Parents and teachers said that in these ICT jobs, learners will be assigned to perform emailing, printing, filing and complying databases while working at switchboards or offices for principals or departmental heads in schools or companies. The above views are voiced in the following excerpts:

**Teacher Participant 1:** *For instance, at my school, we have a learner who left school and is now doing administration in the school. He does filing and then works for the departments for therapists, phase departmental heads and the principal.*

**Teacher Participant 3:** *I (teacher) think that they (learners with HFA) can also be good at using the internet and emailing. We (teachers) were also teaching them to use telephone to call their parents. Therefore, I think they can also be good receptionists. Some can be able to work on a switchboard. Then, they can be secretaries or administrators who can be given some documents, types, saves and print.*

**Teacher Participant 4:** *Therefore, they (parents), aspire their children (learners with HFA) doing some of these simple jobs like being a messenger, being a messenger you understand or working in a sheltered environment where they are protected.*

**Parent Participant 4:** *I (parent) think they can work in offices; later, they can even work in what they call this thing to do some databases for some companies whereby they will get some quiet place and work on their own because they facing challenges when the environment is too busy or something.*

#### **Subtheme 2: Photographing**

Based on thematic analysis of the data, this study showed that teachers and parents consider photographers to be suitable jobs for learners with HFA in South African special schools. As a result of learners with HFA being passionate about photography, teachers and parents believe that such learners can become photographers in the future. Photographing is a simple task that involves using the hands and taking photos and pictures with tablets, iPads, and smartphones. Below are excerpts illustrating the above views:

**Teacher Participant 3:** *I think they can be photographers.*

**Parent Participant 4:** *What I (parent) did, I first bought a tablet for him (learner with HFA). It was for the kids, and I saw he was bored of it. I then bought him a proper tablet and I downloaded lots of information to help him and the other thing he likes to do to take pictures I downloaded for the kids. So, he can be a photographer. He is using that app since he is good when it comes to computers. He takes pictures. He makes videos with it and does all the stuff.*

**Parent Participant 3:** *So, they (learners with HFA) are good at information and technology (IT). Neh! So, others they can do IT, and others they can do graphic design because they use their hands. Yeah!*

#### **Subtheme 3: Fixing computers and building websites and work stations**

Based on the findings of the study, parents and teachers of learners with HFA perceive semiskilled jobs, such as fixing computers, building websites, and building workstations, as suitable future careers for learners with HFA.



Based on the findings, these jobs require semiskilled work and can be done with passion and love, so parents and teachers consider them appropriate for learners with HFA. The above views are shared in the following excerpts:

**Teacher Participant 5:** *What I have come across with is parents whom they want them (learners with HFA) to do IT. Maybe fixing, building websites because they are clever. They are creative as well, if they are introduced to something.*

**Parent Participant 4:** *According to my understanding, because they (learners with HFA) are so good in regard to technical things such as cellphones and laptops. We (teachers and parents) may follow that where they may be good.*

**Parent Participant 2:** *Mostly would be computers, but you know what, even IT. What I have realized since I have been here is that kids (learners with HFA) are very good at IT. Ah! They can invent games even if they are not aware of it. Like play stations and computer stuff.*

### **Theme 3: Jobs in the transport sector**

Based on the findings of this study, parents and teachers in South African special schools view transport jobs as suitable for learners with HFA.

#### **Subtheme 1: Car washing, driving and being car-wash guys**

Based on the findings of this study, a variety of semiskilled jobs in the transport industry, such as car washing, being a car-wash guy, and driving, are considered viable future careers for learners with HFA by parents and teachers. According to the findings of this study, the above semiskilled jobs involve simple activities such as learning how to drive cars or washing cars or buses for a small amount of money to buy small necessities. Below are excerpts revealing the above views:

**Teacher Participant 1:** *They (learners with HFA) show a lot of interest in washing cars for at least R10. So, there is a lot that they can do. With the proper school structure, children will be able to clean school busses and will be able to clean staff cars for a fee. The children (learners with HFA) will know that, if I clean a car, I will be able to have R10 or R30. So, we cannot limit them.*

**Teacher Participant 2:** *Secondly being a car-wash guy. They (learners with HFA) can do that.*

**Teacher Participant 3:** *We (school) also have a car wash. If they are able to, they can also do car-washing. There was a boy (learner with HFA) who was driving, but it was a bit tricky and difficult for him. I think the traffic department needs a special provision for licenses for learners with autism.*

### **Theme 4: Views for jobs in the sports industry**

In this study, the findings showed that jobs in sports are viewed by parents and teachers as suitable jobs for learners with HFA from a South African special school context.

#### **Subtheme 1: Team sports**

Based on the findings of this study, parents and teachers consider a variety of team sports, such as playing soccer, netball, being an athlete, playing a cricket, and playing basketball, to be suitable for future careers for learners with HFA. Parents and teachers see land sports as suitable career options for learners with HFA since they offer lucrative financial benefits and are played based on ability. Below are excerpts that capture the above views:

**Teacher Participant 1:** *We have learners who can play football, who can play netball, and who can play basketball.*

**Teacher Participant 2:** *Then, there is also outside work. Can become athletes, some (learners with HFA) can be soccer players, and some can be musicians, but obviously, all these things need teachers to guide them toward their career lines.*

**Teacher Participant 5:** *Yeah! I am not sure, but what I have experienced, parents want learners with ASD to do sports such as soccer. That is what I (teacher) have come across.*

**Teacher Participant 3:** *Even if they (learners with HFA) can play soccer, many people who play soccer, who are playing rugby, and who are playing cricket are earning much more.*

**Parent Participant 3:** *Oh! Teacher Charles! Other things that they (learners with HFA) can do maybe sports. They (teachers) can help the kids who can kick the ball and who know how to play netball.*

#### **Subtheme 2: Water sports**

According to this study, teachers and parents consider water sports, such as swimming, to be suitable for learners with HFA. This study showed that learners with HFA, especially those with behavioral deficits, become calmer when swimming. This is the key factor that triggers parents and teachers to choose swimming as a suitable future profession for such learners. Below are excerpts expressing the above views:

**Parent Participant 4:** *I think what we can; the school can look on the side of the sports. It is important for our kids to have grounds, especially because of their (learners with HFA)'s behavior, swimming calms them down.*

**Teacher Participant 1:** *Things like swimming, we have learners who can swim.*

#### **Theme 5: Views about vocational job-related skills**

In this study, teachers and parents viewed vocational jobs in various industries as relevant jobs for learners with HFA.

#### **Subtheme 1: Being waiters and cooks**

The study revealed that teachers and parents of learners with HFA prefer vocational jobs in the catering industry, such as waiters or cooks, as suitable future careers for learners with HFA. In their (teachers' and parents') views, the above jobs are suitable for learners with HFA due to the aspirations these learners demonstrate in such jobs. Furthermore, parents mentioned that these jobs are beneficial to learners with HFA since they can open a family business such as a kitchen or salon that is managed by learners with HFA when they graduate from school. Below are excerpts that confirm the above views:

**Teacher Participant 2:** *You can see they (learners with HFA) aspire to be waiters. They aspire to be bakers. To be more like career aspirations, we need to support them so that they can be bakers.*

**Parent Participant 1:** *Okay! Let us say if she (learners with HFA) is good at cooking, I will be able to open something for her to do. A small business. Yes! S's Kitchen small-nyana (small) or S's beauty Salon, because I know she loves them. She loves those things.*

**Parent Participant 6:** *Yes! Also cooking like hospitality, like baking or cooking because also washing he is good.*

**Teacher Participant 3:** *We (teachers) also have a coffee shop. I suppose most of the time we are making (cooking) some food there, so that they (learners with HFA) can have a spaza shop or have work in a restaurant.*

#### **Subtheme 2: Packing**

Based on findings from this study, semiskilled vocational jobs in the retail industry, such as packing, are deemed suitable potential careers for learners with HFA by their teachers and parents. Teachers and parents believe this type of job is relevant to learners with HFA because learners are trained to master the skill through the TEACCH model at school, in retail stores and in other places. Furthermore, parents and teachers noted that packing is an excellent vocational job for learners with HFA since retail shops usually hire such learners for packing groceries for a salary. These views are shared in the following excerpts:

**Teacher Participant 2:** *You know! As part of a lower level as TEACCH (Teaching and Education of Autistic and Communication Handicapped Children) tasks. So, packing for retail stores, like your Pick and Pay, your Edgars, Shoprite, only with engagement can they accommodate them.*

#### **Subtheme 3: Gardening**

Based on teachers' and parents' perspectives, a vocational job in the agricultural industry, such as gardening, is considered a relevant vocational occupation for learners with HFA. The use of hands for gardening activities motivated parents and teachers to view gardening as a feasible future career option for learners with HFA. Furthermore, parents and teachers view gardening as a good vocational

opportunity for learners with HFA since they can be entrepreneurs who will later be farmers and can begin gardening projects at home when they graduate from school. The following excerpts share the above views:

**Teacher Participant 3:** *I think they have to be businessmen or entrepreneurs. For example, what we are doing in our school. We have garden upstairs. They can own a farm or a small plot.*

**Parent Participant 4:** *I think if we focus on something they do with their hands like gardening, like that. I think it will be good for them.*

**Parent Participant 6:** *Teachers can focus on, maybe they teach them (learners with HFA) how to do gardening.*

#### **Subtheme 4: Carpentry, building and plumbing**

In this study, parents and teachers of learners with HFA in South African special schools endorse construction-related jobs such as carpentry, building and plumbing as suitable future careers for learners with HFA. The parents and teachers of learners with HFA said that vocational jobs such as building, woodworking, and plumbing are good jobs for learners with HFA because they are more practical, and learners with HFA are better suited to work that requires hand use than jobs that require cognitive skills. The following excerpts illustrate the above perspectives:

**Parent Participant 6:** *Yes! Even the carpentry. Like! Some of them (learners with HFA) cannot concentrate. Yes! To teach them to do placemats with their hands, trays and mirrors. Yes teacher Charles!*

**Teacher Participant 5:** *Building and woodworking. I think those are the ones which are more practical that they can do. I think they (learners with HFA) need more practical work than study.*

#### **Theme 6: Vocational Counseling and Guidance Development Programs (VCGDPs)**

According to this study, a variety of vocational counseling and guidance and development programs (VCGDPs) play critical roles in developing jobs perceived by parents and teachers as suitable for learners with HFA from a South African special school perspective.

##### **Subtheme 1: Vocational Sponsors**

According to the findings of this study, vocational sponsors are critical for developing jobs chosen by parents as relevant for learners with HFA. This study revealed that sponsors such as fire stations, garages, computer shops, and retail shops play valuable roles in developing career opportunities for learners with HFA identified by their parents and teachers. Below are excerpts illustrating the above points:

**Parent Participant 1:** *Yes! They (sponsors) can, maybe, willing to sponsor our kids (learners with HFA) or maybe put them in schools or if they have someone who is willing to work with them our kids, because our kids are not just kids, they are special.*

**Teacher Participant 4:** *You know! Again! This exposure, visiting places such as fire stations, police stations, this and that. Actually! I think it helps them in a big way because they are told and see the work tools there and see what is being done there.*

**Teacher Participant 5:** *I think that is the one. That is, companies like big shops, garages and even computer shops for them to be able to show them.*

##### **Subtheme 2: Vocational shadowing**

According to this study, vocational shadowing is an appropriate programme for learners with HFA who need to develop relevant careers identified by parents and teachers. It was reported that vocational shadowing has various benefits for learners with HFA, including the chance to learn about a career in a real workplace under the supervision of vocational counsellors using a variety of vocational resources. Moreover, parents and teachers said that vocational shadowing allows learners to relate what they have learned academically to real-life situations and ignites their chances of getting a job after school, specifically at the sponsor where they would have undergone vocational shadowing. These views are confirmed in the following excerpts:

**Parent Participant 1:** *Yeah! This (vocational shadowing) is very important because at the end of the day, they will be upgrading our kids.*

**Parent Participant 3:** *I think it (job-shadowing) helps, and there is this place here in town called the scibono. Yeah! Even if they go there, that place can help them with things like science, technology and all sorts of things. I think it will help them to develop them.*

**Parent Participant 4:** *It (job shadowing) is important in future life after graduating here. So, there where we take him (learner with HFA) to do internship or sort of, they will be knowing him. So, it comes back; when he turns 21, he can go there and get a job.*

**Teacher Participant 1:** *At Biltong Factory, they (learners with HFA) package biltong into packets and put on prices. They are given packets they package and put prices and at sheltered employment, whatever is available to do like there.*

**Teacher Participant 3:** *Work attachment will help them to master the skills. Therefore, in this case, I think if learners are being directed somewhere where they can be attached to certain companies in certain types of careers, there after we can tell whether they are able or they are not able.*

**Teacher Participant 4:** *Yeah! My opinion is that I find that it (job shadowing) has a positive development. Being exposed to a work environment actually increases and makes it closer to reality.*

**Teacher Participant 5:** *Then, the other one in VET (vocational and education training) is doing car racing. They (teachers) take the child (learner with HFA) for car racing to see and get to know the car.*

### **Subtheme 3: Vocational experts**

Based on the findings of this study, vocational experts are crucial for providing learners with HFA with critical information aimed at developing future jobs identified by parents and teachers as suitable for such learners. The findings of this study showed that teachers and parents regard vocational experts, including therapists, coaches, and supervisors, as key role models with the specialist knowledge and skills needed to help teachers and parents find suitable future careers for learners with HFA. The following excerpts highlight these views:

**Teacher Participant 2:** *Giving support in the sense that they just do not just give support. For example, if I feel that, my child (learner with HFA) loves Art. Why cannot I go there where there are artists painting? Let the child go there and be exposed to that and see how his interest is for you (teacher and parent) to be able to guide him in that career of being an artist. .*

**Teacher Participant 3:** *Most of these learners can be helped by working with a coach or sheltered employment where we do not expect learners with autism to work alone but rather to work under a supervisor or a coach who will take them step by step on a daily basis.*

**Teacher Participant 4:** *They take him (learner with HFA) to the appropriate therapist for help for that child to get appropriate help that he needs. Some because they want their child to be an independent speech, they make sure that the child will receive maximum therapy. So, in a way, they shape, they groom their child toward that way.*

**Parent Participant 1:** *Since I said she loves cooking, they (school) must bring someone from outside the school. Someone who knows best about beauty and someone who knows best about cooking. Then, on the beauty part, it needs someone like from the salon part to be there, making them understand this. When you deal with beauty, it's not just beauty; beauty starts from this and this. Someone who knows best about beauty and stuff.*

**Parent Participant 2:** *I think as you have said, the programme that has been invented to bring people with specific careers to come and teach teachers and then after teaching the teachers, the teachers can help the learners with the few skills that will be given. I think that one will do. I think that is the best option. It truly boosts our kids (learners with HFA). Yes!*

### **Subtheme 4: Teacher and parent counseling and guidance**

According to the findings of this study, teacher counseling and guidance programs within schools play an important role in identifying and developing suitable future jobs for learners with HFA. The findings showed that parents and teachers meet at school in counseling and guidance meetings to share information on how to identify relevant jobs for students with HFA. The following excerpts confirm the above views:

**Teacher Participant 1:** *We (teachers) have meetings with parents to update the parents on the progress on the skills they want us to focus on. Whatever, I notice; I present this to the parents.*

**Teacher Participant 3:** *We have very intelligent parents. When they come to school, we tell them what we think, but from their side, they would also come and tell us.*

**Parent Participant 1:** *That is, at the end of the day, we have to work together (teacher and parent) because me (parent), at home, I can see that she loves the beauty more.*

**Parent Participant 3:** *I think, I (parent) must do the same thing that they (teachers) are doing at school.*

#### **Subtheme 5: School and vocational-company collaboration**

This study revealed that by collaborating with schools and vocational companies, teachers and owners of these vocational companies can exchange information related to developing certain jobs identified by parents and teachers as potential future jobs for learners with HFA. Based on this study, teachers and parents discovered that collaboration between schools and industry stakeholders allows schools to send learners with HFA to such companies with the aim of identifying and developing certain jobs through vocational shadowing in various vocational industries. These views are expressed in the following extracts:

**Teacher Participant 3:** *We (school) were connected to FNB (First National Bank). Each time FNB had a market, they would ask us to come and sell our things from the Skills Centre. They (learners with HFA) would sell and give change. As time went by, we (school) also went to Biltong Factory, where learners were taught to pack biltong and seal it and put the price on packets.*

**Teacher Participant 4:** *Ah! Other strategies, such as available jobs, may be supported by companies under sheltered employment schemes.*

**Parent Participant 3:** *There is a park here; it's not working. Therefore, if like teachers, they truly want to help the kids to achieve. Let us say they (school) truly want them (learners with HFA) to play soccer, or something. They can ask the police to use this space.*

#### **Subtheme 6: Vocational skills participation**

The findings of this study demonstrate that parents and teachers can identify suitable future jobs for learners with HFA in a South African special school context in various ways. This is done by requiring learners with HFA to participate in vocational skills such as washing cars, cooking, taking orders and delivering food to clients and watering plants. It is through participation in such vocational activities that teachers and parents can uncover jobs such as waiters, car-wash guys, and gardeners that might be suitable for learners with HFA. These views are highlighted in the following excerpts:

**Teacher Participant 3:** *We (school) also had a car wash. A car wash where learners were taught to wash cars. We had a garden where learners were taught to take care of the plants and to water. We also had an irrigation scheme. So we taught learners to connect the pump, set time and water the garden.*

**Teacher Participant 1:** *I think when they (learners with HFA) are able to be practical in whatever career aspirations; it makes them to be more interested. For instance, in the kitchen, in the building where people take orders and make pop cons, they make sandwiches and people place orders.*

**Teacher Participant 2:** *Yes! I think the tuck-shop duties are one of the programs, gardening, program; beading is being done in the class now.*

**Parent Participant 1:** *What I have to do or I encourage the child (learner with HFA) to do more and present him or her with more exercises to do Art and take him or her to Art Museums, but taking a child*

*to museums is a challenge; we are under Lockdown. At home, I let her do the chores because she loves doing chores.*

#### **Subtheme 7: Parental-initiated vocational methods**

Upon thematic analysis of the data in this study, it was concluded that parental-induced vocational methods are essential for identifying, developing, and sustaining employment for learners with HFA. The findings of this study indicate that these parentally initiated vocational programs include the opening of family businesses, in which learners with HFA are employed by family entrepreneurs (parents) to manage and engage in skills such as cooking, delivering food, and printing pamphlets. Further findings indicated that when parents buy vocational resources specifically related to identifying future jobs for learners with HFA, they can provide such learners with relevant information related to how they can develop such jobs by exploring those resources. These views are echoed in the following extracts:

**Teacher Participant 3:** *Therefore, parents on their own, they also do something to look around what their kids (learners with HFA) can do. One (parent of learner with HFA) opened like a kitchen or restaurant for the son, and afterwards, she printed some pamphlets, and I am told she has managed to negotiate with one of the schools around the area. So, the boy, the guy (learner with HFA), supplies snacks at position ten and lunch at position one. The other parent, I am told, initiated a company.*

**Parent participant 5:** *Sometimes we (parents) try to buy everything. I always buy all the things to help them (learners with HFA).*

#### **Subtheme 8: Parental counseling and guidance**

Based on the findings of this study, parents who initiate home counseling and guidance skills may be able to identify suitable future jobs for learners with HFA. The findings of this study suggest that parents can provide valuable information on how best to develop a learner's identified future career path when they sit with them in counseling and guidance sessions. Additionally, parents are able to provide counseling and guidance to learners with HFA by providing them with vocational resources and by taking them to vocational mentors for advice on how to develop their identified future jobs. The following transcripts share these views:

**Teacher Participant 5:** *Well! They (parents) do. I (teacher) only have one of my parents; as I have said, the interest is in computers for a learner in my class. She said she would take the child for extra lessons for him to learn computers, and at home, he has his own laptop to learn more.*

**Parent Participant 4:** *Because for them the kids (learners with HFA) living with autism, it's so difficult for them. So, I always try to give him support.*

**Parent participant 5:** *I (parent) always buys all the things to help them (learners with HFA).*

**Parent Participant 2:** *The only thing we (parents) do is when he (learner with HFA) draws that is when we say we are going to do something together, and then, when I put those things together and try to memorize and make a little museum, he feels like wow!*

**Parent Participant 3:** *I (parent) must like to focus on helping her, showing her that if you do not want to spill the water you must do this.*

## **Discussion**

The findings of this study suggest that vocational arts and crafts jobs, such as drawing, cutting, pasting, beading, and knitting, are considered relevant future career options for learners with HFA in South African special schools, according to the views of parents and teachers. The study revealed that arts and crafts are semiskilled occupations that require more skill than high intellectual ability, which may explain why nonhandicapped learners tend to avoid them. Therefore, teachers and parents of learners with HFA at a special school in Johannesburg have identified these jobs as suitable for their children. Similar findings were reported in a study by Grandin (2006) in the USA, where teachers and parents of learners

with ASD viewed art as a valuable vocational skill for their children. In Turkey, Ozdemir and Koç (2023) also found that weavers (creative looming) were considered optimal jobs for learners with ASD, according to their parents' perspectives. While these previous studies did not provide a clear explanation for why art-related skills are preferred for learners with ASD, our own experience working with learners with HFA supports the findings of this study. Parents and teachers of learners with HFA believe that skills such as drawing, cutting, pasting, beading, and creative weaving are relevant vocational paths for these students. The argument is that these jobs are semiskilled and require hands-on abilities rather than purely intellectual capabilities.

According to the findings of this study, parents and teachers of learners with HFA in a special school context in South Africa view jobs in the ICT industry as appropriate and lifelong future careers for learners with HFA. Parents and teachers stated that such jobs include photographing, emailing, printing, filing, fixing computers, building websites and play stations, or being receptionists and messengers. The rationale for teachers and parents choosing these kinds of ICT jobs as suitable for learners with HFA is that they have noticed an increased interest and capabilities in computers among learners with HFA. Similarly, a study conducted and published in the United States of America (USA) by Grandin (2006) highlights computer programming as a suitable ICT job for learners with HFA as viewed by parents of learners with ASD. Furthermore, the above findings agree with Wheelwright and Baron-Cohen's (2001) study conducted in the United Kingdom (UK), which highlights medical computing as an attractive future occupation for learners with HFA according to their parents' views. Additionally, Neary et al. (2015) indicated that parents prefer creating computer games as jobs for learners with ASD. However, Grandin (2006), Neary et al. (2015), and Wheelwright and Baron-Cohen (2001) did not identify factors that ignite parents and teachers to view jobs in the ICT industry as suitable for learners with HFA. Based on our experience dealing with learners with HFA, we have noted that factors such as their interest in computers, smartphones, iPads, and tablets, emailing, printing, creating websites and play stations, typing, laminating, and filing, and their overall interest in ICT make their teachers and parents believe that learners with HFA are suited to jobs in the ICT industry.

This study indicates that parents and teachers of learners with HFA prefer jobs in the transportation industry, such as car washing, driving, and being car wash attendants, as suitable future employment opportunities for learners with HFA. These jobs are considered semiskilled, requiring more hands-on work than cognitive skills. They are also likely to be overlooked by learners without disabilities, making them viable future jobs for learners with HFA according to teachers and parents. Further findings suggest that car washing is a suitable job for learners with HFA at a special school in Johannesburg because it can be performed in various locations, including the school itself. Learners with HFA are given the task of cleaning cars for staff and visitors in exchange for a small payment, allowing them to purchase essential items with their earnings. Although driving was also identified as a potential future job for learners with HFA, it was noted that they may face challenges in obtaining a driver's license if driving courses are not tailored to be autism friendly. This study further revealed that parents and teachers consider various jobs in different sports categories suitable for learners with HFA in special schools in South Africa. Specifically, teachers and parents see soccer, netball, cricket, and basketball as viable options for learners with HFA in the individual and group sports industries. The study revealed that parents and teachers view sporting jobs as suitable for learners with HFA due to their lucrative salaries compared to other professional careers in different industries. These jobs can be pursued based on talent and interest without requiring any educational qualifications. The findings also showed that swimming is a relevant activity for learners with HFA in South African special school settings, as it helps calm students with behavioral challenges. Despite a literature review, no studies have explored the perspectives of parents and teachers on future jobs for learners with HFA in South African special schools, particularly in the sports industry. In contrast, Neary et al. (2015) found that parents preferred jobs such as waiters,

sales assistants, community workers, and personnel service workers for their children with ASD. Based on our experience working with learners with HFA, we have observed that parents and teachers believe that sports jobs are suitable for these learners due to their talent and interest in sports.

Based on the findings of this study, parents and teachers in a South African special school context view vocational jobs as suitable future careers for learners with HFA. The study revealed that parents and teachers believe that jobs such as baking, cooking, and being a waiter or waitress are good vocational opportunities for learners with HFA. Learners with HFA show a high level of interest in catering-related activities, such as cooking, taking orders, and delivering food, which convinces their teachers and parents that these are suitable career paths. Neary et al. (2015) conducted a study in Australia identifying being a waiter as a relevant job for learners with ASD but did not specify why parents consider these jobs suitable or if they were referring to Australian parents of learners with HFA. Furthermore, this study revealed that parents and teachers considered gardening, woodworking, building, and plumbing to be suitable future occupations for learners with HFA in South Africa. These hands-on practical skills were seen as beneficial for learners with HFA, as they tend to excel and be happier when engaged in hands-on activities rather than intellectual tasks. Although there is limited evidence in the literature on this topic, our experience working with learners with HFA has shown us that vocational skills in construction, carpentry, plumbing, and agriculture are suitable for these individuals. Given the interest of learners with HFA in activities such as gardening, including land preparation, planting, watering, harvesting, packing, and selling plants, we believe that these vocational skills are well suited for learners with HFA.

According to the documents reviewed in this study, there is insufficient information about how parents and teachers can support learners with HFA in developing useful employment strategies from a special school setting. However, the findings of this study indicate that vocational counseling and guidance development programs (VCGDPs) are a crucial part of developing perceived future jobs for learners with HFA from a South African special school perspective. According to the findings, VCGDPs are significant because they involve multiple stakeholders, such as parents, sponsors, teachers, supervisors, and job coordinators. As a result of the above views, the theory of career construction makes sense for this study since Rudolph et al. (2019), Savickas (2020), and Savickas (2013) have shown that the identification and development of jobs among learners are performed collaboratively by many stakeholders. There can be a wide range of stakeholders, including teachers, parents, sponsors, therapists, owners, and employees. As these various stakeholders meet at different places in society, they are in a unique position to exchange information about how to construct suitable jobs for learners, as described in Savickas (2013)'s study. This study revealed that companies or sponsors such as fire stations, garages, large retail shops, and others are critical to the development of jobs suitable for learners with HFA, as identified by teachers and parents. Several of these sponsors offer vocational shadowing to learners with HFA in jobs they believe are suitable for such learners. This study revealed that when learners with HFA undergo vocational shadowing, they are able to gain knowledge and skills on how to develop future careers identified by their parents and teachers. In addition to transferring academic work into the real world of work at the workplace, vocational shadowing also increases the chances of learners with HFA obtaining a job after graduation from school. Similarly, the above findings align with those of Savickas (2013), who demonstrated that job development occurs across a variety of spaces, including the workplace. As a result of our work with learners with HFA, we found that vocational shadowing at various sponsor stakeholders, such as sheltered employment, biltong factories, retail shops, and school tuckshops, can help teachers and parents identify jobs that are appropriate for learners with HFA from a South African special school context.

This study's findings also revealed that vocational expert personnel play a crucial role in developing parents' and teachers' perceived future jobs for learners with HFA. A vocational expert can be



a therapist, teacher, coacher, supervisor, motivator, or any other job role model. The findings of this study suggest that these vocational experts are responsible for providing parents and teachers with crucial information on how best they can help learners develop selected future jobs in different industries. Similarly, a study by Savickas (2013) also concluded that supervisors and coaches are also important in developing learners' future careers. Therefore, when these vocational experts sit down with parents, teachers, and learners with HFA, they are more likely to provide information that is crucial to the career development of learners with HFA. Moreover, schools also play a vital role in creating suitable jobs for learners with HFA within VCGDPs. To develop future jobs for learners with HFA, collaboration between teachers and parents is crucial. As a result of the above views, it is evident that the theory of career construction and decision-making that was used as a theoretical framework for this study has significant implications. These views resonate with the fact that a theory such as this encourages the involvement of multiple stakeholders within the school context and elsewhere as a means of sharing job information with the aim of identifying suitable careers for learners with HFA, as demonstrated by Savickas (2013) and Savickas (2020). Thus, during school events such as prize-giving days and cultural day functions, parents and teachers are likely to exchange information, especially to develop suitable jobs for learners with HFA. In addition to the same views, the school should work collaboratively with other inside and outside stakeholders to identify strategies for developing parents' and teachers' perceived future jobs for learners with HFA.

This study also revealed that the home's role as a participant in VCGDPs plays a significant role in shaping parents' and teachers' perceptions of future occupations for learners with HFA. As a result of this study, parents' involvement in vocational developmental projects within the family context helps them identify and develop future jobs. This kind of initiative also helps to create employment opportunities for learners with HFA within family businesses such as bakeries, restaurants, spaza shops, and plots. In addition, studies by Del-Corso and Rehfuss (2011) and Savickas (2020) indicate that parents play a significant role in identifying future jobs for learners, developing those jobs, and opening up additional job opportunities for such learners within the home context. In this way, learners with HFA will likely find employment within their parents' vocational initiatives rather than seeking employment elsewhere after they graduate from special school. The home-directed vocational projects provide learners with the opportunity to engage in job tasks such as cooking, washing and packing dishes, mopping floors and sweeping and cleaning, placing orders and delivering food, e-mailing, printing and filing, watering plants in the field or garden, and weeding in the garden. The above perspectives make the theory of career construction and decision-making a viable theory for this study. This is because Savickas (2013) and Savickas (2020) suggest that parents and other stakeholders construct and develop perceived future jobs for learners, including those with HFA in special schools in South Africa and elsewhere.

### **Implications, Limitations and Suggestions**

Based on the findings of this study, the Department of Basic Education should incorporate VCGDPs into the curriculum of all special schools for students with special educational needs. This initiative aims to provide teachers with guidance on how to support learners with HFA in preparing for future employment opportunities. The study also highlights the importance of a collaborative approach among stakeholders in developing individualized support plans for learners with HFA, focusing on identifying, nurturing, and placing them in suitable vocational roles for lifelong employment. Consequently, special education curricula for learners with HFA in South Africa should prioritize vocational skills and be collaboratively designed by all stakeholders. The findings of our study, along with the literature we reviewed, led us to propose a vocational counseling and guidance (VOCG) model to

support and promote positive perspectives on potentially suitable jobs for learners with HFA. Building on these findings, we propose a VOCC model that emphasizes the involvement of multiple stakeholders in identifying and developing occupations for learners with HFA. This model aligns with the works of Egilson et al. (2018), Fujino and Sato (2022), and Mushambi et al. (2024), who argue that collaboration among various professionals, teachers, and parents is required to identify and develop suitable occupations for learners with HFA in a South African special school setting. Within the VOCC model, teachers, parents, therapists, department heads, nurses, sports coaches, psychologists, social workers, and television (TV) broadcasters all play a role. The convergence of these stakeholders allows for the sharing of perspectives on identifying and developing suitable occupations for learners with HFA. Heinze (2019), Mushambi et al. (2024), and Savickas (2013) highlighted the importance of stakeholder collaboration in supporting learner needs. We propose the VOCC model under the belief that learners with HFA acquire occupational skills through engaging in various vocational activities. These activities can include baking, food delivery, order placement, typing, emailing, filing, driving, plant watering, packing, carpentry, construction, and plumbing. Engaging in these activities can help parents and teachers identify preferred occupations for learners with HFA, as Mushambi et al. (2024) suggest that learners with HFA excel in activities that require manual dexterity over intellectual abilities.

There were challenges that affected the data collection sessions, as some participants postponed their data collection appointments due to illness or absence. There were delays in data collection when participants were unsure about participating in face-to-face sessions during the COVID-19 outbreak, despite the implementation of preventive measures. We believe that these challenges could have been avoided if the study had been conducted before or after the COVID-19 pandemic. If researchers choose to conduct studies during a pandemic such as the COVID-19 pandemic, data collection should be performed online using platforms such as Microsoft Teams and Zoom, utilizing smartphones, computers, iPads, and tablets connected to the internet. This is crucial to minimize physical contact between researchers and participants. This study suggests further exploration of teachers' and parents' perspectives on appropriate future careers for learners with HFA in South African special school settings across provinces. It is recommended that VCGDPs be integrated into university curricula to equip aspiring teachers with the necessary knowledge to identify and cultivate suitable job opportunities for learners with HFA. The study also proposes the development and implementation of a vocational-specific curriculum involving all stakeholders for learners with HFA. This curriculum focuses on identifying and nurturing relevant employment opportunities for learners with HFA, as well as facilitating their placement in appropriate vocational industries.

## Conclusions

This study revealed that parents and teachers of learners with HFA in a South African special school prefer jobs such as woodworking, building, drawing, knitting, baking, gardening, building websites, creating workstations, emailing, driving carwashes, playing soccer, netball, cricket, and basketball, or packing groceries as suitable future jobs for learners with HFA. Teachers and parents view these jobs as suitable for learners with HFA because they are semiskilled jobs that do not require much intellectual capability. Moreover, learners with HFA mainly use their hands for these jobs, are interested in them, and are often excluded by learners without disabilities. This study further demonstrated that VCGDPs play a crucial role in developing jobs perceived by parents and teachers as suitable for learners with HFA. There are multiple types of VCGDPs, including teacher and parent collaboration, cooperation with vocational experts, collaboration with sponsors, engagement of learners in vocational activities, and parental-initiated programs. Learners with HFA may acquire the necessary knowledge and skills to

develop identified suitable jobs through the effective implementation of VCGDPs. This may help them secure jobs in various industries after leaving school and entering the workforce.

### Authors' Contributions

CM conceived the study was an aspect of his doctoral thesis. BMD, MMS and CE were co-supervisors of this doctoral research. CM wrote the manuscript. BMD, MMS and CE proofread the first and final drafts of the manuscript.

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### Conflict of Interest

There is no conflict of interest to declare among the authors.

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