Jurnal Kejuruteraan SI 6(2) 2023: 21 – 30
https://doi.org/10.17576/jkukm-2023-si6(2)-03

Challenges and Experience in Training Intellectually Disabled Students in the National Floristry Competition: Toward the WorldSkills Competitions

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Received 10 May 2023, Received in revised form 31 July 2023
Accepted 30 September 2023, Available online 30 December 2023

ABSTRACT

Malaysia is one of the 85 member nations competing in the WorldSkills Competition, which unites two-thirds of the world's population. The WorldSkills mission is to encourage and assist 100 million young people in advancing their skills by 2030. This study investigated how teacher (special education teacher), the community (instructor), and expert, train an intellectually disabled student for the National Floristry Competition. As a precursor for the WorldSkills Competition, this study examined their experiences and difficulties in training intellectually disabled student for this competition. This study uses a purposive sampling method with three participants rather than a random one. Based on a case study research design, it employs ethnographic participant observation and in-depth interviews, among other techniques. The study determined that student with special needs should participate in international skill competitions as early as possible. The Malaysian floristry industry has significant untapped potential, and students with intellectual disabilities can access it if they receive ongoing guidance and training. To be successful in the WorldSkills Competition, Malaysia must overcome financial, time, and knowledge limitations. This study illustrates the difficulties and lessons learned in preparing an intellectually disabled student for the national floristry competition. These empirical investigations result in a deeper understanding and are crucial to academicians as the path for future planning and generating future young talents for the WorldSkills Competition.

Keywords: WorldSkills Competition; intellectual disability; Floristry Competition; untapped potential; future young talents

INTRODUCTION

Individuals with intellectual disabilities are a subset of individuals with disabilities who experience limitations that are not visible immediately, such as hearing or vision impairments. According to Schalock et al. (2021: 3) intellectual disability is a disability characterized by significant limitations in intellectual functioning and adaptive behavior, encompassing a broad range of daily social and practical skills. This disability begins before the age of 22. General mental capacities such as learning, reasoning, and problem-solving are examples of intellectual functions, and typically, the results of IQ tests between 70 and 75 indicate a minimum limit for intellectual function (Schalock et al. 2021). Individuals with intellectual disabilities can achieve independence by acquiring skills that promote self-sufficiency. Nevertheless, the term *disability* is commonly linked with unfavorable reactions. Implementing skill-based education can be a feasible approach to assist individuals with distinctive learning needs in acquiring novel proficiencies. According to Wang et al. (2022), vocational education is strategically positioned to develop skilled and practical individuals across various industries. The increasing pace of industrial upgrading and economic restructuring leads to a growing demand for skilled personnel. One approach to implementing acquired skills is through participation in skill competitions. According to Chankseliani et al. (2016) empirical investigation, skills competitions can potentially increase the attractiveness of vocational education. Wang et al. (2022) have provided evidence to suggest that vocational skills competitions represent a significant reform and conceptual innovation within the vocational education system. The WorldSkills Competition is a globally

renowned skills competition that attracts diverse participants from various regions and intends to assess an individual's proficiency in a particular field.

WORLDSKILLS COMPETITION

WorldSkills' history spans nearly seven decades, originating in Spain in 1950 (Kowalska & Knais 2021). The initial WorldSkills competition was held at the "Virgen de la Paloma" Vocational Training Institute in Madrid (Kowalska et al. 2022). Due to the pandemic, WorldSkills International, WorldSkills Members, the WorldSkills Shanghai 2022 Executive Bureau, and WorldSkills China cancelled WorldSkills Shanghai 2022 (WorldSkills International 2022a). In 2022, the WorldSkills global network hosted skill competitions in various countries and regions, collectively known as the WorldSkills Competition 2022 Special Edition. Europe, North America, and East Asia hosted sixty-one international competitions (WorldSkills International 2022b). WorldSkills elevates the recognition and prestige of skilled individuals while highlighting the critical role that skills play in driving economic development and personal success. WorldSkills International motivates young individuals from its 85 member nations to strive for excellence and nurture their passions by participating in global skill competitions demonstrating their vocational expertise in more than 40 trades, such as healthcare, hairdressing, floristry, and robotics, among others. The "Abilympics" is a distinct WorldSkills competition primarily tailored to individuals with disabilities. The historical roots can be traced to the World Skills Competition and the Paralympic Games in Japan in 1972 impede their abilities. The Abilympics is a quadrennial event that provides a platform for young athletes with disabilities to showcase their skills and abilities, thereby challenging the notion that their disabilities hinder their performance (WorldSkills International, 2023).

The optimal framework for organizing skill competitions is exhaustive and hierarchical, with multiple organizational levels start with 1) the school level, 2) the municipal level, 3) the regional level, 4) the national level (e.g., SkillsPoland, Szakma Sztár Fesztivál), 5) the European level (EuroSkills), and 6) the global level (WorldSkills) (Kowalska et al. 2022). It is essential to sufficiently train educational personnel to collaborate effectively with business professionals and facilitate local and regional proficiency competitions. In most WorldSkills member states, the procedure begins with school-level competitions and concludes with national finals. Winners of medals are crowned national champions in the skill of their choosing and compete internationally. Figure 1 below show the pyramid depicts achieving excellence through WorldSkills competitions with a strong foundation in VET.

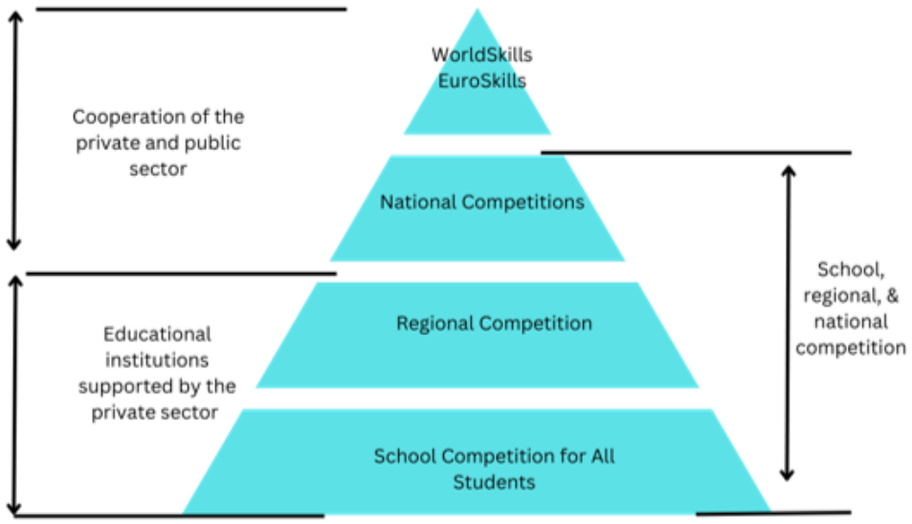

FIGURE 1. Model for Skills competitions at different levels (Kowalska et al. 2022)

Skills competitions can increase vocational education and training attractiveness by fostering a deeper understanding of their capabilities. Participation in global competitions positively affects an individual's talents and skills, career prospects, and the economic value associated with entrepreneurship. Linking entrepreneurial experiences and WorldSkills was not simple; most study participants saw some connections, but not all were straightforward to identify. Chankseliani et al. (2015) determined in a previous study that WorldSkills fostered entrepreneurship by enhancing competitors' social networks, psychological traits, and technical and business interaction skills. Nonetheless, solid entrepreneurial motivation frequently precedes participation. In a separate study, Chankseliani et al. (2016) confirmed that WorldSkills sends a clear message to employers and clients regarding competitors' technical and transferable skills, which can result in economic benefits. Eighty-one out of one hundred and ten participants reported that participation in the WorldSkills Competition has significant career benefits, such as advancement to managerial, administrative, and supervisory positions. Nevertheless, many vocational careers are perceived as 'pretty jobs.' The World Skills Competition is globally recognized as the premier event for vocational education and skill proficiency.

This research centered on a case analysis of individuals directly instructing students with intellectual disabilities to participate in a national-level floristry competition for the youth category, particularly those under 30. The primary objective of this competition is to discern proficient candidates hailing from Malaysia who can serve as representatives of the nation in the global WorldSkills floristry competition. The Ministry of Youth and Sports organized a floristry competition for young individuals. This competition is open to participation by youth, including members of the national youth skills institute (IKBN) across the country. This study explores the perspectives of a floristry entrepreneur, special education teacher, and national floristry expert on the feasibility of offering instruction and involving individuals with intellectual disabilities in an internationally recognized competition. The present study is based on a qualitative research methodology incorporating interviews as the primary data collection technique. The sample size for the study is limited to three participants. The research questions asked by this study are the following:

(RQ1) What are the experiences of training an intellectually disabled student in this floristry competition?

(RQ2) What are the challenges in training young special needs talents for the next WorldSkills competition?

(RQ3) How can we improve to prepare young people with special needs for the next WorldSkills competition?

METHODOLOGY

PARTICIPANTS

Bekele and Ago (2022) state that the sample selection for this qualitative study depends on several factors, including the composition of the selected group and whether it exhibits homogeneity or heterogeneity. The investigation is influenced by various factors, such as the scope of the study, the topic under consideration, the quality of the data, the design of the research, the type of research inquiry, the availability of resources, time limitations, the broad or ambiguous domain of inquiry, and the researcher's previous experience with qualitative research. Thus, this study has determined that the preliminary stage of the investigation will comprise a cohort of three subjects consist of a teacher who has been teaching special needs students for ten years, an industry expert in floristry who has been the proprietor of a florist shop for over two decades, and a floristry expert who has more than 24 years of experience and has represented Malaysia in the WorldSkills Competition. In the present study, the investigator obtained data through sampling, wherein participants were chosen from a heterogeneous population. The sampling technique employed in this study was purposive sampling, which entailed the deliberate selection of participants with specific characteristics that demonstrated variability in gender, prior knowledge, floristry skill specialization, and teaching experience. In this case, a special education teacher, a flower shop operator, and a floristry expert were chosen as the target population's representatives. The main aim of this preliminary inquiry is to scrutinize the experiences and challenges faced while preparing for a floristry proficiency contest. Hence, the adequacy of the sample size is contingent upon the quality of the data desired during data acquisition.

INSTRUMENT

Scholars recommend that semi-structured interviews are the most appropriate research approach (Bowen, 2009; Corbin & Strauss, 2014; Cresswell, 2012; Galletta, 2013; Kallio et al. 2016; Yin, 2016) to facilitate our inquiry. The approach, as mentioned earlier, is widely recognized for its flexibility and versatility, as the research protocol can be customized to suit both individual and group contexts (DiCicco-Bloom & Crabtree, 2006) and align with the research questions and objectives (Kelly et al. 2010). Semi-

structured interviews allow researchers to establish rapport with participants, facilitating access to their subjective perspectives. Through open-ended and comprehensive inquiries, respondents can provide substantial and enlightening information during the survey process. The current investigation utilized a semi-structured interview format comprising seven open-ended questions to gather participant data. This instrument was developed based on pre-existing knowledge and established best practices. A comprehensive literature review was conducted. The present review examined a range of scholarly investigations on floristry training, special education, inclusive practices, and prior research conducted on intellectually disabled students within competition settings. The literature review yielded significant insights that guided the formulation of interview questions and ensured their congruence with pertinent theories and concepts.

ANALYSIS

The coding procedure was conducted on a significant segment of text in the interview transcript, designated as the unit of analysis. The coding framework was developed using a directed analysis approach, which involved the identification of primary categories and subcategories—using thematic criteria made dividing written content into discrete pieces based on real-world evidence easier. It could be easily added to the already-established coding framework for future leaders. Developing and cultivating individuals with the requisite skills and qualities to lead and manage teams effectively is crucial to achieving organizational success.

After conducting a comprehensive analysis of all the manuscripts, the chosen text excerpt is extracted from its initial context, categorized through tagging, and documented in accordance with the corresponding interview recording. Miles and Huberman, (2014) posit that the coding process attains completion when all the data obtained from the interview can be effectively integrated into the central code and subcategories. According to Côté et al. (1993), the researcher must amalgamate comparable text segments into coherent clusters to establish the initial context of study participants. The importance of reliability and data management in qualitative research is paramount, as they are essential factors in guaranteeing the trustworthiness and authenticity of the gathered data (White et al. 2012).

RESULTS

During the training session with the intellectually disabled student, the participant gained experiences attributed to three interrelated themes. The results indicate that the analysis of interview data has led to the emergence of thematic categories, illustrated in the Figure 2 below

FIGURE 2. Thematic categories for experiences gained during National Floristry Competition

The study found four main themes describing the difficulties participants faced when training people with intellectual disabilities for global skills competitions. These themes are shown in Figure 3, presented below, and were created from the interview data analysis.

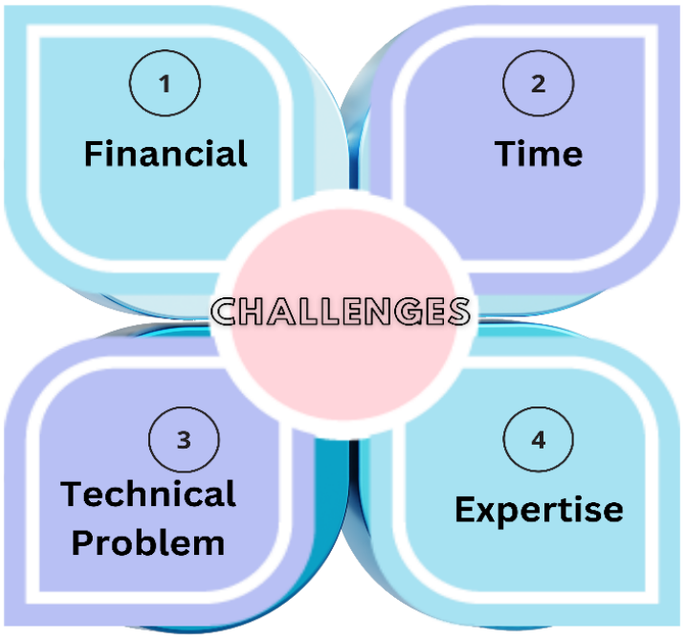

FIGURE 3. Thematic categories for challenges faced during National Floristry Competition

In order to accomplish the aims of this research, three primary research questions have been formulated as the foundation of this study. The theme, as mentioned earlier, responds to the initial research inquiry.

RQ1: What are the experiences of training an intellectually disabled student in this floristry competition?

According to their interactions with students with intellectual disabilities, the three participants' experiences were distinct. This experience pertains to the comprehension of intellectual disability among students relative to those who typically acquire proficiency in the floristry skill. It also entails imparting composition techniques and communication skills essential for interacting with students with intellectual disabilities. The discussion will examine the understanding of intellectual disabilities, then discuss instructional strategies and communication skills appropriate for students with special needs.

Understanding of intellectual disabilities. According to the primary interviewee, educators specializing in special needs may possess knowledge and experience in effectively addressing cognitive difficulties in a classroom environment. Teaching individuals with disabilities to attain expertise in the specialized floral design field constitutes a unique endeavor. This phenomenon can be attributed to the elevated focus on academic endeavors and reduced anxiety levels experienced by students during in-class education. Preparing for a floristry competition can present difficulties for students and educators. The responsibility of instructors is to facilitate the acquisition of essential skills by students within a restricted time frame before the competition. The responsibility of conducting training exercises can be arduous, as students may encounter weariness and depletion due to the repetitive nature of the exercises. To partake in training, the instructor guided the students to a florist establishment where they could gain insights into composition techniques from experienced apprentices. However, the student demonstrates a heightened level of comfort in the company of the individual they are acquainted with, specifically the teacher. Therefore, instructors must maintain a consistent presence during training sessions to effectively impart floristry techniques to students.

The second participant in the program is a trainer who provides students with special needs with specialized training. The trainer has prior experience working with students with intellectual disabilities due to their participation in school-sponsored programs. During the training session, the trainer observed that the student became despondent when she could not follow the instructions. Nonetheless, the student persisted in attempting to produce an aesthetic composition. Individuals

with intellectual disabilities have the potential to pursue a vocation in floristry, according to the trainers. However, it is essential to note that these students may require ongoing training and support due to their intellectual difficulties, as they frequently struggle with short-term memory retention. It is necessary to engage in recurrent actions in order to consolidate a memory into long-term storage. The acquisition of floristry skills necessitates continuous and iterative training and the ability to be creative when arranging flowers. The trainer demonstrates high commitment during the training session and tolerance when instructing students with special needs. Despite her busy schedule as a florist entrepreneur, she sets aside a certain amount of time to train a pupil with intellectual disabilities for the floristry competition.

The third participant is a skilled practitioner of floriculture who has competed in international WorldSkills competitions. At the national level, he serves as a jury member for the floristry competition. As a parent of a child with autism, the individual possesses knowledge and expertise regarding individuals with intellectual disabilities. The individual in question visited the florist, which functions as the training center for the intellectually disabled student, during the training session. He trained students and taught them floristry techniques. Due to the expert's awareness of the student's disability, he exhibited great concern and was delighted to offer special needs students complimentary floristry training services. Therefore, individuals must recognize their abilities to perceive weaknesses in others and instead endeavor to increase understanding of an individual's intellectual disability, emphasizing their genuine potential.

Instructional strategies. The three participants concurred that repetition as a training method proved highly beneficial to students with intellectual disabilities in remembering the sequential steps involved in creating flower arrangements. Throughout the instructional session, the instructor recorded the sequential procedures involved in the composition process and then sent the recording to the student's mother, requesting that the video be viewed at home. This method substantially improves students' ability to recall information learned in class. While it is true that students can create, competitions require a higher skill level, which necessitates demonstrating creativity and originality in completing assigned tasks. Before students can perform original arrangements, training is only a foundational concept. Students can comprehend better and more quickly when instruction begins with analyzing simple tasks.

Communication skills appropriate for students with special needs. Effective communication is crucial during training sessions. Given the student's shyness and difficulty with communication, it is incumbent upon the trainer and instructor to consistently initiate a dialogue regarding the philosophical issue at hand. The two primary modes of communication utilized are direct interpersonal interaction and the WhatsApp mobile application. The involvement of the student's mother is essential for effectively disseminating information about floristry competitions, intending to mitigate any potential loss of information. The three participants agreed that the student's communication skills required improvement, given her introverted nature.

RQ2: What are the challenges in order to train young special needs talents for the next WorldSkills competition?

Challenges that the participant face during the training session with the intellectual disability student can be categorized into: financial, time, technical problem, and expertise.

Financial. The financial aspect is one of the obstacles encountered when providing training in floristry skills to students with intellectual disabilities. This is because using freshly harvested blossoms for the entire instructional period is recommended to accustom the student to the situation. Participant 1 said the training session cost approximately 5,000 ringgits, including the trainer's compensation. Consequently, the costs associated with preparing for a floristry competition are substantial.

Time. Training students with intellectual disabilities to develop floristry skills for national competitions for four weeks poses a significant challenge. Therefore, it takes a long time to hone talent and skills to produce the country's young talent in floristry. However, sometimes special students have natural talents that can be trained quickly. The time frame to produce new talents requires planning for 4-5 years in preparation for the WorldSkills competition.

> "I feel the biggest challenge in training for a floristry competition is to train an intellectually disabled student in such a short time. This is because training should be held daily to sharpen floristry skills, according to the concept of the competition. However, this student is a quick learner, and even though she is in a special category, she can do it. She's the one who can progress in this field if she's constantly training. But it takes time to develop the talent" (Trainer).

> "Her talent can take her far in this discipline if she receives consistent training. However, she needs additional training and mastery of floristry-related techniques for this competition. Although she is a quick learner, she must be fast when performing floristry tasks. The championship time necessitates speed, which she is confident she can achieve through training. Training students with intellectual disabilities in floristry for four weeks in preparation for national competitions is a tremendous challenge." (Floristry Expert)

Technical problem. The competition for floristry skills is conducted in a live online format, which presents a challenge regarding technical difficulties that must be addressed. Throughout the competition, teachers, and trainer encounter challenges such as disruptions in internet connectivity.

> "Technical issues are a typical obstacle in online live competitions. However, we did our best to reduce the number of technical issues in order to prevent the contestants' anxiety. Before the competition, we had prepared a test run…. and the trainer was also accommodating, as she was glad to provide a special place in his florist shop for our special needs students on the day of the competition. This deeply moved us because she was so concerned with the special needs students and dedicated to ensuring this floristry competition's success." (Special education teacher)

> "The technical problems we encountered during the live online competition were very troubling because I was afraid this student would lose focus and forget the steps, I had taught..... Nevertheless, we addressed the technical problem, and the student seemed calm during the flower arrangement..... I am very grateful that such technical problems can be overcome. I suggest that perhaps in the future, the organizers will need to gather participants in the same place to overcome this technical problem." (Trainer)

Expertise. Malaysia still needs more experts in the field of floristry. Compared to foreign countries, Malaysia's floristry industry still has much to explore. Although this field has high commercial value, the floristry industry in Malaysia still needs to develop. This is based on the results of an interview with the country's floristry expert, who said:

> "I can say that Malaysia is still far behind in the field of floristry and the lack of experts in this field. The flower industry in the country has the potential to grow, and I can see the opportunities open to anyone, including special needs student. We need to discover the talents of the youth to produce a talented young generation as a national asset in the future, especially in preparing for the WorldSkills competition in the future." (Floristry Expert)

RQ3: How can we improve to prepare young special needs talents for the next WorldSkills competition?

The investigation focused on preparing young people with special needs to compete in the WorldSkills competition. The empirical evidence suggests that floristry still needs to be incorporated into the skills-based curriculum of special education vocational schools or secondary schools' special education integrated programs in Malaysia. Consequently, students with disabilities who have a passion and talent for floristry can acquire these skills through private instruction by enrolling in external courses or through the facilitation of floristry training programs by educators in collaboration with a team of experts in this field.

> "Perhaps in the future, floristry-related disciplines will be included as one of the skill areas for students with special needs in the special education curriculum. This creates opportunities for talented and enthusiastic students in the floristry industry." (Special education teacher)

> "A significant amount of work remains to be accomplished within the realm of floristry. This profession welcomes talented individuals interested in floristry, regardless of gender. I can attest to its inclusivity as someone who did not initially pursue this field. As a former footballer, I have developed a strong determination and a willingness to explore new fields, such as floristry, even without prior experience or knowledge. I embarked on an educational and exploratory journey overseas to gain knowledge and expertise in floriculture. Individuals with intellectual disabilities have the potential to make progress in this domain, if they exhibit a strong work ethic and possess a profound passion for the subject matter. I am willing to disseminate my floristry expertise and provide free instructional services to students with disabilities who express interest in acquiring knowledge in this field." (Floristry expert)

> "Personally... I feel that these intellectually disabled students can participate in WorldSkills competitions in the future if we train them and provide proper guidance as early as possible at the primary school level. This is because continuous training can improve a person's skills and get them used to having a routine in their lives. If we set the target, we must plan immediately." (Trainer)

In addition, all three participants concurred that students with intellectual disabilities should be exposed to continuous hands-on training, competency-based training, and competition-based training to provide the country's next generation with talent in floristry.

DISCUSSION

This paper discusses the experience and difficulties in preparing students with intellectual disabilities for floristry competitions, intending to select representatives or young talents for the WorldSkills floristry competition. The interview results are consistent with previous research on the role of special education teachers in assisting students to reach their full potential, not only in instructional settings but also in terms of the significance of cultivating cooperative relationships with the surrounding community.

According to Ryökkynen and Räty's research (2022), special vocational needs teachers working in vocational special education institutions that offer extensive specialized assistance to students are at the forefront of emerging and uncharted labor market demands. In addition, they have the potential to challenge preconceived notions and promote inclusivity in the workplace and society. Due to the limited resources available to young people with intellectual disabilities, Hofmann et al. (2014) have previously demonstrated the importance of optimizing the impact of professional assistance on their career advancement in various educational settings. The direct impact of VET teachers on career aspirations and the self-concept of students' capacity to pursue further education is crucial. The essential function of the vocational education and training (VET) instructor is to provide appropriate feedback and acknowledge the capabilities of some apprentices while disregarding others.

Participants in this study share a sensitivity to the needs of students. This is significant because special needs student is highly susceptible to health problems and have difficulty adjusting to their immediate surroundings. According to Halim et al. (2019), individuals with disabilities may encounter difficulties with retaining basic instructions, executing complex tasks, acquiring fundamental literacy and numeracy skills, communicating effectively, and other issues that will impact their employability. Therefore, we must embrace their disability without feeling burdened rather than turn it into an asset. Because there is no one-size-fits-all solution, the community must adapt the environment to the abilities of individuals with special needs. However, solid, and secure social connections facilitate observing positive development.

Notwithstanding the obstacles encountered by the participants, including financial limitations, limited training periods, technical difficulties, and a lack of experts in the floristry field, the benefits derived from the competition are undeniable. Continuous training throughout the competition has facilitated the acquisition of new experiences and skills, thereby creating opportunities for all stakeholders, particularly students with intellectual disabilities. The international competition presents a valuable prospect for all individuals within the vocational industry. According to Alla et al. (2021), the WorldSkills championship movement benefits the development of professional skills among aspiring professionals in a particular field. This is achieved through improving training facilities and opportunities for students during the competitions, as well as establishing direct communication channels with a range of companies and government representatives. Based on the empirical data research, Nokelainen et al. (2012) stated that competitors who has joined WorldSkills competition reported that passion for the work, enjoyment of learning and opportunities to use new technologies made their occupations attractive to them. The findings from this study support the model that was developed by WeRSkills. The "WeRskills" initiative promotes a bottom-up approach to utilizing skills competitions (Kowalska et al. 2022). This initiative aims to advance national vocational education and training systems. The strategy mentioned above adheres to the "Osnabrück Declaration," which regards vocational education and training as facilitating recovery and equitable transitions to digital and green economies. All education ministers from European Union member nations endorsed this statement in November 2020 (Union, 2020).

In 2015, Chankseliani and colleagues conducted a study titled "The Developing and Understanding Vocational Excellence (DuVE) Suite of Research Projects," which centers on investigating WorldSkills competitions. The results of the study indicate a correlation between WorldSkills competition and entrepreneurship. Specifically, preparing for and involvement in WorldSkills fostered entrepreneurship by enhancing the competitors' social networks, psychological traits, and technical and business interaction abilities. Nevertheless, it was revealed that most entrepreneurial contenders had exhibited entrepreneurial tendencies before engaging with WorldSkills, either self-employed, intrapreneurial or possessing latent entrepreneurial qualities. To clarify, many competition participants exhibited a robust drive towards entrepreneurship before participating in said competitions. For students with intellectual disabilities to be economically independent after graduation, mastery of skills and entrepreneurship are potential economic stimulants. According to the study's findings, Malaysia's floristry industry offers enormous entrepreneurial opportunities to individuals across genders, including people with intellectual disabilities. Participation in skills competitions is believed to help students and stakeholders hone their talents and produce economically viable students with special needs. In fostering learning and self-regulatory skills during vocational education, the current study recommends focusing more on students with intellectual disabilities, specifically through skills competitions. It is essential to provide students with the opportunity to enhance their vocational skills under the guidance of educators while recognizing.the potential benefits of collaborating with industry professionals.

CONCLUSIONS

This study examined three participants' perspectives on training an intellectually disabled student for national-level floristry competitions that helped her develop her talents and skills in floristry. This study has significant implications for floristry education and inclusivity. It emphasizes the need for tailored, inclusive training programs to address the specific obstacles faced by intellectually disabled students. Creating supportive learning environments fosters creativity and self-expression among these students, promoting inclusivity and boosting their confidence. The findings also raise awareness about the challenges in competitive settings, inspiring policy changes and collaboration among stakeholders. In conclusion, this study aims to ensure equal opportunities and success for all students in the National Floristry Competition in the future. To assist students with intellectual disabilities in preparing for future participation in the WorldSkills floristry skills competition, all stakeholders must start practicing, beginning with a small-scale competition at the school level. International competitions can help students with intellectual disabilities develop their talents and skills and provide them with opportunities to start entrepreneurship in the industry.

ACKNOWLEDGEMENT

The authors would like to thank the Alumni Association of the Student Representative Council of Universiti Teknologi Mara Malaysia (PIMPIN) as the organizer, together with its strategic partners, Rakan Muda and Skills Malaysia, with the support of the Ministry of Youth and Sports (KBS) for organizing the National Floristry Competition 2021.

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