

## Article

# Sustainable Inclusive Framework Studio for Inclusive Education—Perceptions of Teachers, Parents, and Students in United Arab Emirates

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**Abstract:** Inclusive education has gained recognition worldwide, with schools and universities adopting various approaches to prioritize inclusivity. However, the challenges faced by educational institutions in this process cannot be ignored. Addressing these challenges is essential in creating a more inclusive society that values and celebrates diversity. This study aims to introduce a model called the Sustainable Inclusive Framework Studio (SIF Studio), which incorporates inclusiveness principles. This model draws from Lev Vygotsky's social constructivism and Albert Bandura's behavior modeling theories. SIF Studio is a framework that emphasizes inclusivity, sustainability, and innovation in education. A quantitative approach is employed to explore the perceptions of teachers, parents, and students regarding the implementation of SIF Studio. The study results revealed that there is a significant difference in the perceptions of students, teachers, and parents before and after the introduction of SIF Studio. By designing and developing SIF Studio specifically for educational institutions, this research aims to bridge the gap between inclusivity goals and practical implementation while aiming for the sustainability goals alongside this.

**Keywords:** sustainability; inclusion; higher education; SIF studio



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## 1. Introduction

Inclusive education supports students in learning together and having equal access to resources and opportunities. Policies promoting inclusive education are in place, and educational institutions are striving to overcome the challenges of implementing inclusivity. This research aims to propose a sustainable, inclusive, and innovative model called the Sustainable Inclusive Framework Studio (SIF Studio). Based on Lev Vygotsky's principles of social constructivism and Albert Bandura's modeling of behavior, SIF Studio embraces inclusivity, sustainability, and innovation in education. SIF Studio can be conceptualized as an educational environment that brings together learners, educators, communities, and various stakeholders to co-create and implement sustainable and inclusive educational practices. This model emphasizes participation, equity, and engagement, ensuring that everyone has an equal opportunity to access quality education. Despite the challenges, SIF Studio holds immense potential for fostering diversity and nurturing an inclusive society. According to Franziska, Pabst. (2023) [1], transformative learning entails a process of notable personal and professional improvement via overcoming obstacles. The findings highlight how SIF Studio supports exceptional students pursue their education, particularly in demanding regular school environments, where students must overcome formidable obstacles. Transformative learning emerges from challenges faced by exceptional students, leading to personal and professional growth through overcoming obstacles and developing new behaviors. With this model, schools have established boundaries in education, and enable students to develop as professionals and personal growth by

adopting challenge-driven education and related strategies. But for these strategies to be implemented successfully, all conflicts need to be resolved and implementers should obtain a feasible environment. The results highlight how teachers from different backgrounds and without special need training can work together to improve learning opportunities and promote inclusive education. The term “inclusive” suggests that the educational system is designed so individuals with special needs can and should actively participate in society (Triviño-Amigo, N., et al., 2022) [2]. Inclusion also signifies a shift in institutions to guarantee the rights of every individual in the community and meet their needs. Adopting an inclusive educational model helps educators, parents, and the next generation develop humane ideals (Haug, P, 2016) [3].

Pedagogy acknowledges the autonomy, self-worth, and rights of individuals, grounded in the values of humanity. With inclusivity in mind, this study aims to explore the perceptions of teachers, parents, and students on the use of the SIF Studio Model. The goal is to create an environment that celebrates and supports the diversity of learners through inclusion and sustainability.

By designing and developing the SIF Studio specifically for educational institutions, this research aims to bridge the gap between inclusivity goals and practical implementation. The SIF Studio will serve as a valuable resource, enabling educational institutions to create sustainable and inclusive environments for all students. This study was undertaken because the UAE government is supporting the goals of safeguarding people with disabilities from all sorts of discrimination, abuse, neglect, and exploitation; granting them equal accessibility; and assisting them in becoming fully integrated members of society. This research has the potential to significantly advance inclusive education practices in schools.

The main objectives of this research are:

- To explore the perceptions of teachers, parents, and students on the implementation of the SIF Studio.
- To compare the perceptions of teachers, parents, and students before and after the implementation of the SIF Studio framework, which focuses on sustainability, inclusivity, and innovation.

Along with the inclusivity goals, the UAE government highlights the importance of sustainable practices, which are again a benchmark for the attainment of excellence in inclusive educational practices.

## 2. Literature Review

Inclusion is an approach built on the idea that all students—including those who are typically developing, those with disabilities, and those from culturally diverse backgrounds—should be accepted and valued for their unique abilities. Every student, regardless of their abilities, should be included in general education and extracurricular activities. This inclusivity is only possible with the necessary support systems in place.

The development of a sustainable inclusive education model has the potential to transform educational systems, making them more equitable, accessible, and empowering for learners of all abilities. This research outlines a comprehensive plan to create and pilot test such a model, providing guidelines for implementation and scaling up. By analyzing the perceptions of teachers, students, and parents, the outcomes of this research will contribute to the advancement of inclusive education practices and foster a sustainable, inclusive, and supportive environment in educational institutions.

The core of the analytical review shows that different countries across continents have instituted inclusive school legislation, albeit with varying degrees of effectiveness. For instance, Trinidad and Tobago: Parey (2020) [4]; Slovenia: Suc et al. (2017) [5], Alborno (2017) [6], and Alderton and Gifford (2018) [7]; and Ireland: Kerins et al. (2018) [8], Hodges et al. (2020) [9], and Miles et al. (2018) [10] have all implemented inclusive education policies to some extent. However, while inclusive education is expected, the responsibility for putting school legislation into practice often falls on the schools themselves. Despite

well-intentioned efforts, the practical application and evaluation of inclusive education in schools lack the necessary support mechanisms.

Previous research has proved that despite the presence of policies, inclusive education faces numerous challenges. While inclusion is viewed as a necessary task, it often feels like an additional burden, further straining an already overcrowded educational environment. The effectiveness of teaching and learning is closely tied to the outcomes of inclusive education. Studies by Mukhopadhyay et al. (2019) [11] and Smith and Broomhead (2019) [12] show that educators and teaching assistants often feel unprepared for the demands of an inclusive classroom and lack continuing professional development (CPD) opportunities for heterogeneous classrooms. In particular, working with children and students with autism spectrum disorder (ASD) presents challenges, as highlighted in studies such as by Tso and Strnadová (2016) [13]. Other studies, like Mowat's work (2019) [14], also mention a lack of preparedness in working with students with ASD or with a group of students with social-emotional and behavioral needs (SEBNs), which includes those with Emotional and Behavioral Disorders.

The studies conducted by Anna et al. (2023) [15] on the sustainability of inclusive education in both schools and higher education involved teachers and students with special educational needs. According to these academics, inclusive education is a key element in the sustainability of education. The study presents the findings of a sociological survey conducted in September 2022, focusing on the readiness of university professors and teachers for inclusive education (N = 125). Additionally, Johanna Naukkarinen (2021) [16] conducted a study on school-university cooperation aimed at integrated and inclusive education for sustainability. The study experimentally analyzed students' opinions on sustainability and compared them with those of other student groups, assessing the educational model in place. Analysis methods included a factor analysis, linear regression, and statistical tests for group differences.

The objective of the study is to determine the role and importance of inclusive education in creating the concept of sustainable societal development. To achieve this goal, the authors suggest outlining solutions to the challenges that both typical students and students with disabilities may face when enrolled in a university. This approach aims to ensure that the needs and interests of all participants are balanced and adequately considered.

A study by Komenda, Springstein, and Zrnic, et al. (2022) [17] provides valuable insights into the physiological and psychological health benefits of engaging in sports activities. Participation in recreational programs enables individuals with disabilities to exercise their agency by forming new friendships, showcasing their creativity to a wider audience, developing a sense of self-identity, fostering feelings of belonging and togetherness, and finding meaning in their existence (Murphy, Carbone, and the Council on Children with Disabilities, 2008) [18]. The existing literature on disability studies in the UAE and neighboring countries highlights the lack of accessibility, resources, and funding for individuals with disabilities across various sectors, hindering their participation in mainstream society. According to United Nations statistics on disability and employment, in developing countries, approximately 80% to 90% of working-age individuals with disabilities are not in the job market, whereas in developed countries, the participation rate ranges from 50% to 70% (The United Nations, n.d) [19]. In the UAE, 90% of disabled Emiratis are excluded from the job market, as reported by the Minister of Community Development, Hessa Buhmaid (Haza, 2019) [20]. Globally, individuals with disabilities face challenges such as isolation, negative attitudes, and inadequate education.

This research project aims to develop a SIF Studio and implement it by providing private educational institutions with the necessary tools and resources to promote inclusivity among their students. Educators working with children and young people with special educational needs will find the findings of this study particularly relevant. Upon a thorough analysis of the existing literature in the field of inclusiveness and sustainability, it becomes evident that there has been limited work conducted on sustainable educational practices or models aimed at creating inclusive environments. Therefore, the researchers

have chosen to propose a model that promotes sustainable inclusive practices and the following hypotheses are formulated:

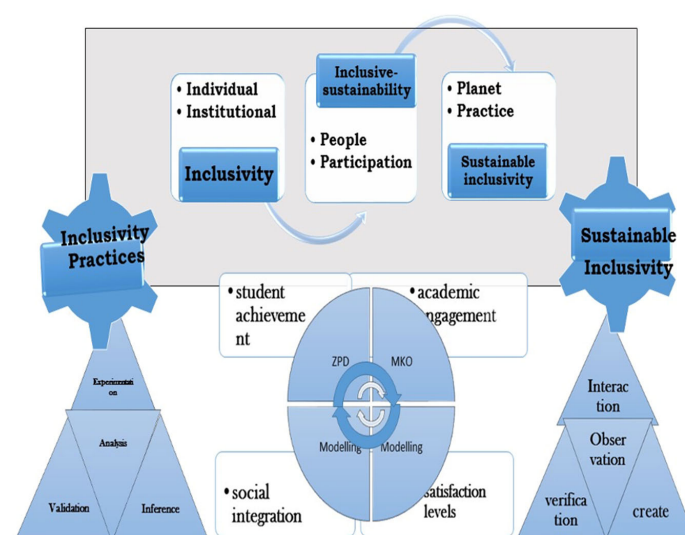
**H1:** *The teachers, parents, and students have positive perceptions towards inclusive sustainable education.*

**H2:** *There is a significant difference in the perception of the parents, teachers, and students who received the intervention program in schools and who did not receive any intervention program.*

The design principles of the SIF Studio are rooted in the theories of Lev Vygotsky and Albert Bandura's modeling of behavior. The implementation of the SIF Studio will be guided by inclusive practices at both the individual and institutional levels. During this phase, the primary focus will be on identifying challenges and potential factors to create a sustainable inclusive environment. This can be achieved through the active involvement of individuals in the educational process, which will facilitate the development of sustainable inclusive environments. Implementing SIF Studios in educational institutions has the potential to bring about transformative and equitable learning experiences, ultimately contributing to the shaping of a better and more sustainable future for all.

### 3. Our SIF Studio

We have developed a framework based on the principles of Lev Vygotsky's social constructivism and Albert Bandura's modeling of behavior, resulting in a user-friendly SIF Studio tailored specifically for the UAE context. The SIF Studio embarks on social-cultural mediation, more knowledge of others as proposed by Lev Vygotsky, and the modeling of behavior through attention, retention, and motor reproduction as described by Albert Bandura. The SIFS model Figure 1 (Mary George Varghese and Smitha Dev, 2023) places a strong emphasis on participation, equity, and engagement, guaranteeing equal opportunities for all to access quality education. The operating principles of the SIF Studio are as follows: inclusivity, features of SIF Studio, diversity and inclusive practices, and teacher training.



**Figure 1.** Sustainable Inclusive Framework Studio (SIF Studio) elements. (Mary George Varghese and Smitha Dev 2023).

#### 3.1. Inclusivity

The SIFS places inclusivity at its core, acknowledging the diverse strengths, abilities, and backgrounds of learners. It strives to provide equitable opportunities for individuals

with disabilities, learners from marginalized communities, and those facing socio-economic challenges.

#### 3.1.1. Co-Creation and Collaboration

The SIFS fosters a collaborative learning environment wherein learners, educators, and communities collaborate to co-create knowledge, curriculum, and learning experiences. It places importance on the active involvement of all stakeholders in decision-making processes, thereby ensuring that multiple perspectives are considered.

#### 3.1.2. Sustainability

Embracing the principles of sustainable development, the SIFS integrates different dimensions into its educational practices. The studio encompasses curriculum development, teacher training, student support systems, infrastructure modifications, and community engagement. Its model is highly sustainable in the UAE context due to its flexibility, adaptability, and ease of implementation by teachers based on their classroom needs. Further details are provided below.

#### 3.1.3. Innovation and Technology

The SIFS harnesses the power of innovation and technology to enrich teaching and learning experiences. (Figure 1 Mary George Varghese and Smitha Dev., 2023) It promotes the utilization of digital tools, open educational resources, and adaptive learning platforms to address diverse learning needs and bridge educational gaps.

### 3.2. *The Features of SIF Studio*

The SIF Studio encompasses five key features, including curriculum development, teacher training, student support systems, infrastructure modifications, and community engagement.

#### 3.2.1. Curriculum Development

The primary goal of advocating curriculum changes is to promote fairness throughout the educational system, allowing all disabled students to uncover their hidden abilities and develop their ideas and thinking skills for success in life. Effective curriculum execution hinges on fostering a positive and constructive perspective among teachers, professionals, and society at large.

#### 3.2.2. Flexibility in Teaching Content

By making necessary changes to course content and presentation, preparing teachers, and creating evaluation methods conducive to learning, subject heads are granted independence. The Universal Design for Learning (UDL) provides a framework for creating curricula that include educational objectives, strategies, resources, and tools adjustable to learner differences.

#### 3.2.3. Role of Learning Support Assistants

Learning support assistants play an essential role in promoting inclusive classroom management strategies and alleviating teachers' workload. Their role involves supporting classroom teachers in the development and progress of all students, particularly those facing challenges, and assisting in developing students' learning and behavior. They specifically assist teachers in implementing structured and agreed-upon learning activities.

#### 3.2.4. Addition to Syllabus

Two elements are recommended to be added to the syllabus: students with disabilities or special needs. This message informs students that if they have a disability for which they wish to request accommodations and have not contacted the ASC and SC, they should do

so as soon as possible. If they suspect that they may have a disability, they should contact the SC to acquire proper documentation.

### 3.3. Diversity and Inclusive Practices

A special note for teachers will be included, outlining how they should interact with students with special needs. This will provide clarity to teachers about the procedures to be followed, do's and don'ts, and immediate necessary steps. Additionally, it will include contact details for support services and personnel.

### 3.4. Teacher Training

An effective teacher in inclusive education should possess a comprehensive understanding of the challenges and requirements associated with inclusive education. They should demonstrate psychological readiness, adaptability, and patience in working with students with special educational needs. Flexibility in teaching methods and the ability to adjust to diverse learning needs and abilities are essential qualities.

Moreover, teachers should embrace an inclusive philosophy, recognizing the value of diversity and the benefits of integrated education for all students. Collaboration with other educators, specialists, and parents is crucial for creating a supportive and inclusive learning environment. Ongoing training and development in inclusive education practices are necessary to ensure that teachers stay updated with the latest methodologies.

Cultural sensitivity, awareness, and access to resources are also necessary to facilitate effective inclusive education. Finally, a positive outlook and a strong commitment to the success and well-being of all students are fundamental for an effective inclusive teacher. SIF Studio emphasizes the importance of teacher training requirements in creating a sustainable and inclusive learning environment for all students.

A variety of teacher training programs are suggested under SIF Studio, which include Universal Design for Learning (UDL training), culturally responsive teaching workshops, Trauma-Informed Education, Differentiated Instruction Training, Inclusive Special Education training, Restorative Justice and Conflict Resolution Training, Environmental and Sustainability education, Social and Emotional Learning Training, etc. In addition to teacher training programs, a few other systems such as student support systems, Financial Aid and Scholarships, Academic Support Centers, Cultural Centers, career services, etc., also play an important role in sustainable inclusive education.

More details about SIF Studio can be found in [Appendix A](#).

## 4. Methodology

To comprehensively understand the inclusive education model, researchers employed a quantitative methodology approach to gather insights from various perspectives.

### 4.1. Sampling Method

In the first phase, this study employed a multi-layered stratified random sampling method. The first stratum encompassed different school boards, such as IB, IGCSE, and Indian Boards. The second stratum comprised primary and secondary levels of education. The third stratum included regular schoolteachers, students of determination, and their parents.

### 4.2. Study Sample

The sample comprised 245 students of determination, 350 parents of students with determination, and 350 teachers. In the second phase, there was no randomization; instead, respondents were selected based on availability, using a non-probability convenience sampling technique. Convenience sampling involves choosing respondents based on their immediate accessibility and willingness to participate in this study. Despite its limitations, this sampling strategy was deemed appropriate for this study as it aimed to explore correla-

tions between variables rather than precisely determine population parameters. Moreover, convenience sampling was preferred for its efficiency and effectiveness in data collection.

#### 4.3. Measurement Tools

The questionnaire for parents of students with determination and teachers comprised three scales: the Teacher's Perception Scale, the Student Perception Scale, and the Parents' Perception Scale. These scales aimed to check student achievement, academic engagement, social integration, and satisfaction levels. The Student Perception Scale included eight key domains, each focusing on a specific aspect of inclusive education: the physical environment, curriculum and instruction, teacher–student interactions, student engagement, support systems, parent and community engagement, assessment and evaluation, and the overall atmosphere of the institution. It consisted of 15 items covering these domains, with response options ranging from “very poor” to “excellent”. The Teacher's Perception Scale encompasses eight key domains, each focusing on a specific aspect of inclusive education: the physical environment, curriculum and instruction, teacher–student interactions, student engagement, support systems, parent and community engagement, assessment and evaluation, and the overall atmosphere of the institution. It consists of 25 items from these domains, including five open-ended questions. The response options for the other items range from “very poor” to “excellent”. Similarly, the Student's Perception Scale encompasses eight key domains, each focusing on a specific aspect of inclusive education: the physical environment, curriculum and instruction, teacher–student interactions, student engagement, support systems, parent and community engagement, assessment and evaluation, and the overall atmosphere of the institution. It consists of 23 items from these domains, with three open-ended questions. The response options for the other items also range from “very poor” to “excellent”.

Through these tools, researchers aim to collect valuable data and insights regarding the inclusivity of educational institutions. By thoroughly evaluating and rating specific areas and offering detailed observations, we can gain an understanding of current practices and pinpoint areas requiring improvement. This information serves as a foundation for developing strategies to enhance inclusivity and diversity within the educational community.

#### 4.4. Reliability and Validity

Reliability was assessed using the inter-rater reliability method, yielding a coefficient of 0.74. Additionally, content validity was evaluated and found to be 0.55. To ascertain the content validity of the draft scale, an item pool was generated based on expert opinions.

The quality control and assurance of the survey is ensured through pre-survey testing where a pilot test is carried out to eliminate the issues with the survey instruments. The items were refined based on the pilot reports. The data collection was monitored and the random verification of the responses by the researchers ensured the quality of the data considered for the analysis and results.

### 5. Paradigm for the Design

#### 5.1. Quantitative Phase

In the quantitative phase, researchers assess the effectiveness of the inclusive education model. The experimentation (Table 1) can be conducted using a  $2 \times 2$  quasi-experimental design, with Q1 representing pre-test scores and Q2 representing post-test scores for student achievement, academic engagement, social integration, and satisfaction levels. Following the experimentation phase, surveys employing Likert-type items will be administered to measure specific aspects of the SIF Studio, including student achievement, academic engagement, social integration, and satisfaction levels.

**Table 1.** Two groups, pre-test and post-test non-equivalent group.

| Group<br>(Students)        | Pre-Test | Treatment | Post-Test |
|----------------------------|----------|-----------|-----------|
| Experimental Group = E (R) | Q1       | X         | Q2        |
| Control Group = C (R)      | Q1       | ---       | Q2        |

R = Experimental group; Q1, Q2 = Pre-test, and Post-test; X = Treatment (SIF Studio).

This study followed the stratified random sampling, as the researchers encountered the paucity of time to carry out the Propensity Score Matching Method to enhance rigor and mitigate the selection bias. Furthermore, the comparability of the two groups is ensured by considering the covariate's gender, socio-economic status, and experience. Thus, we ensured the influence of confounding variables to a greater extent and prepared a comparable experimental and control group.

### 5.2. Procedure Adopted for Data Collection and Data Analysis

The investigators raised awareness among parents and teachers from selected schools about the importance of the SIF Studio in facilitating positive academic outcomes for students with disabilities, thus enhancing inclusiveness. Special emphasis was placed on incorporating structured programs in each school to integrate students with various disabilities into the regular school system. A total of 175 individuals were identified for the experimental group out of the 350 head teachers, while the remaining 175 were assigned to the control group. All participants in the experimental group attended a training session lasting approximately six hours over two weeks. Before the training session, all 350 head teachers were administered a perception questionnaire to measure their perceptions of the available inclusive education program in their school.

Following the two-week training period, the 175 schoolteachers gradually implemented the SIF Studio to address the needs of disabled students in their schools. This implementation involved making necessary adjustments to course content and presentation methods, guiding fellow teachers, and devising innovative evaluation methods tailored to the learning styles of disabled students. Subject heads were empowered to autonomously make these modifications across various areas, including curriculum, teacher training, infrastructure adaptation, student support systems, and community engagement. This conscious and continuous effort to create an accommodating learning environment to enhance inclusive education spanned a period of seven months, from September 2022 to March 2022. Head teachers who did not complete both the pre-test and post-test assessments were excluded from the final data analysis.

Both students and parents did not undergo formal training programs; however, their perceptions were measured before and after the implementation of the SIF Studio. Nevertheless, the experimental group of both parents and students received a briefing about the SIF Studio implementation before taking the post-test. Categorical and quantitative variables were expressed as frequency (percentage) and mean  $\pm$  SD, respectively. Descriptive statistics such as the mean  $\pm$  SD and median with interquartile range, minimum, and maximum were used to describe perception scores. Box plots were utilized for graphical presentation, illustrating minimum, first quartile, median, third quartile, and maximum values. Independent *t*-tests and one-way ANOVA were employed to compare quantitative parameters among categories. Paired *t*-tests were used to compare quantitative parameters before and after the intervention. A significance threshold of  $p < 0.05$  was considered for all statistical interpretations. Statistical analyses were conducted using the SPSS statistical software package, version 20.0.(IBM, Chicago, IL, USA).

## 6. Result and Discussion

The table presents the results of a study comparing two groups, an experimental group and a control group, across various domains related to education. Here is the interpretation and summary:

### Physical Environment

The mean scores for both the experimental and control groups are very similar (7.63 vs. 7.62), and the  $t$ -value is 0.51 with a  $p$ -value of 0.607. These results show that there is no statistically significant difference between the two groups in terms of their perceptions of the physical environment.

### Curriculum and Instruction

Although the mean scores are slightly different (8.79 vs. 8.64), the  $t$ -value of 0.93 and a  $p$ -value of 0.351 suggest that this difference is not statistically significant. Therefore, there is no strong evidence to support a significant difference in the perceived quality of curriculum and instruction between the experimental and control groups (Table 2).

**Table 2.** Comparison of pre-intervention perception of teachers toward inclusive sustainable education.

|                                      | Experimental |      |     | Control |      |     | $t$  | $p$   |
|--------------------------------------|--------------|------|-----|---------|------|-----|------|-------|
|                                      | Mean         | SD   | N   | Mean    | SD   | N   |      |       |
| Physical environment                 | 7.63         | 1.67 | 175 | 7.62    | 1.65 | 175 | 0.51 | 0.607 |
| Curriculum and instruction           | 8.79         | 1.55 | 175 | 8.64    | 1.54 | 175 | 0.93 | 0.351 |
| Teacher–student interactions         | 7.22         | 1.41 | 175 | 7.06    | 1.39 | 175 | 1.07 | 0.286 |
| Student engagement and participation | 4.37         | 1.10 | 175 | 4.28    | 1.07 | 175 | 0.79 | 0.430 |
| Support systems                      | 7.15         | 1.56 | 175 | 6.97    | 1.92 | 175 | 0.98 | 0.329 |
| Parent and community engagement      | 2.53         | 0.68 | 175 | 2.47    | 0.73 | 175 | 0.76 | 0.449 |
| Assessment and evaluation            | 4.37         | 1.22 | 175 | 4.27    | 1.25 | 175 | 0.78 | 0.438 |
| Overall atmosphere                   | 4.24         | 1.15 | 175 | 4.13    | 1.21 | 175 | 0.86 | 0.392 |
| Overall perception                   | 46.21        | 4.40 | 175 | 45.44   | 4.74 | 175 | 1.57 | 0.118 |

### Overall Perception

Regarding the overall perception, although the mean scores are different (46.21 vs. 45.44), the  $t$ -value is 1.57 with a  $p$ -value of 0.118. While this result is not statistically significant at the conventional 0.05 level, the relatively low  $p$ -value suggests that there might be a trend toward a difference in overall perception that could be explored further in future research. Overall, across various domains, there is no strong evidence to suggest a significant difference between the experimental and control groups.

### Physical Environment

The mean score for the experimental group (8.62) is significantly higher than that of the control group (7.82), with a  $t$ -value of 3.48 and a  $p$ -value of less than 0.01. This indicates a significant difference in the perceived physical environment, favoring the experimental group. Notably, 76% of the schools in the experimental group created green spaces through gardening, involving students in planting trees and flower pots. This initiative fostered better interaction among regular students and created an atmosphere of inclusiveness.

### Curriculum and Instruction

The mean score for the experimental group (10.06) is higher than that of the control group (9.60), with a  $t$ -value of 2.04 and a  $p$ -value of 0.042. This suggests a significant difference in perceptions of curriculum and instruction, favoring the experimental group. The implementation of UDL workshops and related learnings contributed to a better formulation of the school curriculum, including the creation of separate question papers, tailored teaching materials, and student-friendly instructions. These improvements are reflected in the higher post-test scores, highlighting the positive impact of these curricular adjustments.

### *Teacher–Student Interactions*

The mean score for the experimental group (8.35) is significantly higher than that of the control group (7.96), with a  $t$ -value of 2.36 and a  $p$ -value of 0.019. This shows a significant difference in perceptions of teacher–student interactions, favoring the experimental group. Additionally, post-UDL training, teachers' attitudes toward students changed considerably, becoming more empathetic and supportive, which likely contributed to the higher scores in this domain.

### *Student Engagement and Participation*

The mean score for the experimental group (5.15) is higher than that of the control group (4.78), with a  $t$ -value of 3.11 and a  $p$ -value of 0.002. This shows a significant difference in perceived student engagement and participation, favoring the experimental group. The presence of inclusive recreation facilities, along with engagement in sports and wellness amenities, played a significant role in fostering integration and participation among students, leading to tangible progress in this area.

### *Support Systems*

The mean score for the experimental group (8.29) is significantly higher than that of the control group (7.87), with a  $t$ -value of 2.77 and a  $p$ -value of 0.006. This indicates a significant difference in perceptions of support systems, favoring the experimental group. The establishment of diversity and inclusion offices, along with the implementation of mentorship programs and peer mentoring, provided sufficient guidance and support, contributing to the positive post-test results.

### *Parent and Community Engagement*

The mean score for the experimental group (3.21) is significantly higher than that of the control group (2.70), with a  $t$ -value of 5.22 and a  $p$ -value of less than 0.01. This indicates a substantial difference in perceptions of parent and community engagement, favoring the experimental group.

### *Assessment and Evaluation*

The mean score for the experimental group (5.44) is significantly higher than that of the control group (5.00), with a  $t$ -value of 3.02 and a  $p$ -value of 0.003. This suggests a significant difference in perceptions of assessment and evaluation, favoring the experimental group.

### *Overall Atmosphere*

The mean score for the experimental group (5.18) is significantly higher than that of the control group (4.81), with a  $t$ -value of 2.69 and a  $p$ -value of 0.007. This indicates a significant difference in the overall perceived atmosphere, favoring the experimental group.

### *Overall Perception*

The mean score for the experimental group (54.31) is significantly higher than that of the control group (50.53), with a  $t$ -value of 4.88 and a  $p$ -value of less than 0.01. This shows a significant difference in overall perception, favoring the experimental group. The tangible changes implemented and specialized attention shown to the students fostered a sense of commitment and inclusiveness from the teachers and school authorities. This helped improve the overall perception among parents and teachers regarding the school's new commitment.

The experimental group consistently reports significantly higher perceptions across various domains compared to the control group. This suggests that the experimental intervention positively impacts the participants' experiences in several areas, including the physical environment, curriculum and instruction, teacher–student interactions, student engagement and participation, support systems, parent and community engagement, assessment and evaluation, overall atmosphere, and overall perception. These findings are statistically robust, providing strong evidence for the effectiveness of the experimental approach in enhancing the educational environment (Table 3).

**Table 3.** Comparison of post-intervention perception of teachers toward inclusive sustainable education.

|                                      | Experimental |      |     | Control |      |     | <i>t</i> | <i>p</i>   |
|--------------------------------------|--------------|------|-----|---------|------|-----|----------|------------|
|                                      | Mean         | SD   | N   | Mean    | SD   | N   |          |            |
| Physical environment                 | 8.62         | 2.48 | 175 | 7.82    | 1.77 | 175 | 3.48     | $p < 0.01$ |
| Curriculum and instruction           | 10.06        | 1.34 | 175 | 9.60    | 2.68 | 175 | 2.04 *   | 0.042      |
| Teacher–student interactions         | 8.35         | 1.50 | 175 | 7.96    | 1.63 | 175 | 2.36 *   | 0.019      |
| Student engagement and participation | 5.15         | 1.16 | 175 | 4.78    | 1.07 | 175 | 3.11 **  | 0.002      |
| Support systems                      | 8.29         | 1.43 | 175 | 7.87    | 1.39 | 175 | 2.77 **  | 0.006      |
| Parent and community engagement      | 3.21         | 1.18 | 175 | 2.70    | 0.55 | 175 | 5.22     | $p < 0.01$ |
| Assessment and evaluation            | 5.44         | 1.60 | 175 | 5.00    | 1.07 | 175 | 3.02 **  | 0.003      |
| Overall atmosphere                   | 5.18         | 1.49 | 175 | 4.81    | 1.10 | 175 | 2.69 **  | 0.007      |
| Overall perception                   | 54.31        | 6.93 | 175 | 50.53   | 7.53 | 175 | 4.88     | $p < 0.01$ |

$p < 0.05$ —\*;  $p < 0.01$ —\*\*.

Similarly, the *t*-value of 0.05, with a *p*-value of 0.964, indicates no significance.

#### Overall Perception

With a *t*-value of 0.05 and a *p*-value of 0.960, there is no significant difference in overall perception between the two groups.

Across all the measured domains, the *t*-values are close to zero, and the corresponding *p*-values are relatively high. This indicates a lack of significant differences between the experimental and control groups in perceptions of the physical environment, teacher–student interactions, student engagement and participation, support systems, parent and community engagement, assessment and evaluation, overall atmosphere, and overall perception. Therefore, based on these results, there is insufficient evidence to reject the null hypothesis in any of the measured domains (Table 4).

**Table 4.** Comparison of pre-intervention perception of students toward inclusive sustainable education.

|                                      | Experimental |      |     | Control |      |     | <i>t</i> | <i>p</i> |
|--------------------------------------|--------------|------|-----|---------|------|-----|----------|----------|
|                                      | Mean         | SD   | N   | Mean    | SD   | N   |          |          |
| Physical environment                 | 5.98         | 0.63 | 122 | 5.98    | 0.63 | 123 | 0        | 0.999    |
| Teacher–student interactions         | 9.98         | 1.29 | 122 | 9.99    | 1.29 | 123 | 0.05     | 0.960    |
| Student engagement and participation | 5.89         | 1.45 | 122 | 5.89    | 1.45 | 123 | 0.04     | 0.969    |
| Support systems                      | 4.00         | 1.48 | 122 | 4.02    | 1.48 | 123 | 0.09     | 0.932    |
| Parent and community engagement      | 2.99         | 0.86 | 122 | 2.99    | 0.85 | 123 | 0        | 1.000    |
| Assessment and evaluation            | 5.98         | 1.43 | 122 | 5.99    | 1.42 | 123 | 0.05     | 0.964    |
| Overall atmosphere                   | 4.90         | 1.24 | 122 | 4.90    | 1.24 | 123 | 0.01     | 0.996    |
| Overall perception                   | 39.74        | 4.14 | 122 | 39.76   | 4.13 | 123 | 0.05     | 0.960    |

#### Overall Perception

The *t*-value of 18.59, with a *p*-value of less than 0.01, shows a highly significant difference in overall perception between the experimental and control groups. The experimental group’s overall perception is significantly different from that of the control group. Across all measured domains, the experimental group consistently reports significantly different perceptions compared to the control group. These findings reveal that the experimental intervention has a substantial and positive impact on participants’ experiences in various aspects of the educational environment, including the physical environment, teacher–student interactions, student engagement and participation, support systems, parent and

community engagement, assessment and evaluation, overall atmosphere, and overall perception. The results are highly statistically significant, providing strong evidence for the effectiveness of the experimental approach in enhancing inclusiveness and various aspects of the educational environment. The comparison of the perception of teachers, parents, and students towards inclusive sustainable education was based on selected background variables (Table 5).

**Table 5.** Comparison of post-intervention perception of students toward inclusive sustainable education.

|                                      | <i>t</i> |      |     | <i>p</i> |      |     |       |            |
|--------------------------------------|----------|------|-----|----------|------|-----|-------|------------|
|                                      | Mean     | SD   | N   | Mean     | SD   | N   |       |            |
| Physical environment                 | 6.31     | 0.79 | 122 | 5.98     | 0.63 | 123 | 3.59  | $p < 0.01$ |
| Teacher–student interactions         | 11.36    | 2.20 | 122 | 9.99     | 1.29 | 123 | 5.94  | $p < 0.01$ |
| Student engagement and participation | 6.72     | 1.15 | 122 | 5.89     | 1.45 | 123 | 4.99  | $p < 0.01$ |
| Support systems                      | 7.61     | 2.22 | 122 | 4.02     | 1.48 | 123 | 14.93 | $p < 0.01$ |
| Parent and community engagement      | 3.68     | 0.72 | 122 | 3.02     | 0.87 | 123 | 6.52  | $p < 0.01$ |
| Assessment and evaluation            | 8.43     | 1.48 | 122 | 6.17     | 1.62 | 123 | 11.35 | $p < 0.01$ |
| Overall atmosphere                   | 7.74     | 1.65 | 122 | 4.97     | 1.32 | 123 | 14.52 | $p < 0.01$ |
| Overall perception                   | 51.85    | 5.48 | 122 | 40.03    | 4.42 | 123 | 18.59 | $p < 0.01$ |

#### Class Grade

There are four class grade categories (F, D, C, and A) with varying means. The F category has a significantly different mean compared to the others, as indicated by an F-test with a test statistic of 6.58 and a  $p$ -value of less than 0.01.

#### Age

For the variable “Age,” individuals aged 16 to 20 years have a mean score of 42.0, whereas those above 21 years have a mean of 39.5. With a  $t$ -value of 2.87 and a  $p$ -value of 0.005, there is a significant difference. The younger age group (16 to 20 years) exhibits significantly higher scores (Table 6).

**Table 6.** Comparison of perceptions of students towards inclusive sustainable education based on selected background variables.

|             | Experimental   | Control | Total |         |       |         |      |
|-------------|----------------|---------|-------|---------|-------|---------|------|
|             | Count          | Percent | Count | Percent | Count | Percent |      |
| Gender      | Male           | 33      | 27.0  | 33      | 26.8  | 66      | 26.9 |
|             | Female         | 89      | 73.0  | 90      | 73.2  | 179     | 73.1 |
| Class grade | F (Below 60%)  | 22      | 18.0  | 22      | 17.9  | 44      | 18.0 |
|             | D (60%)        | 45      | 36.9  | 45      | 36.6  | 90      | 36.7 |
|             | C (70%)        | 44      | 36.1  | 45      | 36.6  | 89      | 36.3 |
|             | B (80%)        | 11      | 9.0   | 11      | 8.9   | 22      | 9.0  |
| Age         | 10 to 14 Years | 12      | 9.8   | 13      | 10.6  | 25      | 10.2 |
|             | 14 and Above   | 110     | 90.2  | 110     | 89.4  | 220     | 89.8 |
| Education   | Middle School  | 11      | 9.0   | 11      | 8.9   | 22      | 9.0  |
|             | High School    | 111     | 91.0  | 112     | 91.1  | 223     | 91.0 |

### Education

There are two education categories (middle school and high school). The mean score for middle school is 39.0, and for high school, it is 39.8. With a  $t$ -value of 0.89 and a  $p$ -value of 0.372, there is no significant difference between the two groups.

The analysis highlights meaningful differences in scores across different categories:

### Gender

There is a significant difference in scores between males and females, with males achieving higher scores.

### Class Grade

There is a significant overall difference in scores among different class grade categories, particularly with the F category displaying significantly different scores compared to others.

### Age

There is a significant difference in scores based on age, with the younger age group (16 to 20 years) achieving higher scores.

### Education

There is no significant difference in scores between individuals with middle school and high school education levels.

### Gender

The mean for males is 48.5, and for females, it is 49.2. With a  $t$ -value of 1.07 and a  $p$ -value of 0.284, there is no significant difference in scores between males and females.

### Emirates

Among the three emirates categories (Abu Dhabi, Dubai, and Sharjah), the mean for Abu Dhabi is 46.7, while for Dubai and Sharjah, it is 49.5. The F-test statistic is 6.75 with a  $p$ -value of 0.001, indicating a highly significant overall difference in scores among the emirates. Further follow-up tests would be required to identify specific differences between pairs of emirates.

### Age

Across the three age categories (18–24, 25–44, and 45–50), the mean for 18–24 is 48.7; for 25–44, it is 49.4; and for 45–50, it is 49.2. The F-test statistic is 0.48 with a  $p$ -value of 0.616, indicating no significant difference in scores among the age groups (Table 7).

**Table 7.** Comparison of perception of parents towards inclusive sustainable education based on selected background variables.

| Background Characteristics | Experimental | Control | Total |         |       |         |
|----------------------------|--------------|---------|-------|---------|-------|---------|
|                            | Count        | Percent | Count | Percent | Count | Percent |
| Gender                     | Male         | 59      | 33.7  | 24      | 13.7  | 23.7    |
|                            | Female       | 116     | 66.3  | 151     | 86.3  | 76.3    |
| Emirates                   | Abu Dhabi    | 35      | 20.0  | 20      | 11.4  | 15.7    |
|                            | Dubai        | 31      | 17.7  | 32      | 18.3  | 18.0    |
|                            | Sharjah      | 109     | 62.3  | 123     | 70.3  | 66.3    |
| Age                        | 25–30        | 48      | 27.4  | 94      | 53.7  | 40.6    |
|                            | 31–40        | 67      | 38.3  | 28      | 16.0  | 27.1    |
|                            | 41–50        | 60      | 34.3  | 53      | 30.3  | 32.3    |
| Education                  | Diploma      | 9       | 5.1   | 9       | 5.1   | 5.1     |
|                            | Master's     | 134     | 76.6  | 148     | 84.6  | 80.6    |
|                            | Bachelor's   | 28      | 16.0  | 18      | 10.3  | 13.1    |
|                            | Doctorate    | 4       | 2.3   | 0       | 0.0   | 1.1     |

### *Education*

There are two education categories (diploma/bachelor's). The mean for diploma/bachelor's is 49.3. With a  $t$ -value of 1.76 and a  $p$ -value of 0.080, there is a marginal non-significant difference in scores between individuals with different education levels.

### *Gender*

No significant difference in scores between males and females has been observed.

### *Emirates*

There is a highly significant overall difference in scores among different emirates. A further analysis or post hoc tests may be necessary to identify specific differences.

### *Age*

There is no significant difference in scores among different age groups.

### *Education*

There is a marginal non-significant difference in scores between individuals with different education levels.

### *Gender*

The comparison between males and females yielded a  $t$ -value of 1.28 and a  $p$ -value of 0.201, suggesting no statistically significant difference in scores based on gender.

### *Emirates*

For the comparison among different emirates (Abu Dhabi, Dubai, and Sharjah), the F-test statistic was 0.82 with a  $p$ -value of 0.440. These results indicate that there is no statistically significant overall difference in scores among the emirates.

### *Age*

When comparing different age groups (18–24, 25–44, and 45–50), the F-test statistic was found to be 0.38, with a corresponding  $p$ -value of 0.687. These findings suggest that there is no statistically significant overall difference in scores among the age groups.

### *Education*

A comparison between individuals with diplomas/bachelor's degrees and those with master's/doctorate degrees yielded a  $t$ -value of 0.43 and a  $p$ -value of 0.669. This indicates that there is no statistically significant difference in scores between individuals with different levels of education.

### *Gender*

The analysis indicates that there is no statistically significant difference in scores between males and females.

### *Emirates*

There is no statistically significant overall difference in scores among different emirates.

### *Age*

There is no statistically significant overall difference in scores among different age groups. Education: the comparison between individuals with different levels of education does not yield a statistically significant difference in scores (Table 8).

**Table 8.** Comparison of perception of teachers towards inclusive sustainable education based on selected background variables.

| Background Characteristics |                    |         |       |         |       |         |
|----------------------------|--------------------|---------|-------|---------|-------|---------|
|                            | Count              | Percent | Count | Percent | Count | Percent |
| Gender                     | Male               | 33      | 27.0  | 33      | 26.8  | 66      |
|                            | Female             | 89      | 73.0  | 90      | 73.2  | 179     |
| Age                        | 21 to 30 Years     | 12      | 9.8   | 13      | 10.6  | 25      |
|                            | Above 30 Years     | 110     | 90.2  | 110     | 89.4  | 220     |
| Education                  | Bachelor's         | 11      | 9.0   | 11      | 8.9   | 22      |
|                            | Master's and above | 111     | 91.0  | 112     | 91.1  | 223     |

## 7. Conclusions

The findings of this study reveal that both teacher training and the implementation of SIF Studio have had a positive impact on the perceptions of all participants involved. There is a significant difference in the perceptions of students, teachers, and parents before and after the introduction of SIF Studio. Specifically, participants reported significant improvements in various aspects, including the physical environment, teacher–student interactions, student engagement and participation, support systems, parent and community engagement, assessment and evaluation, overall atmosphere, and overall perception. These findings provide compelling evidence supporting the effectiveness of the experimental approach in enhancing the educational environment. Participants have shown increased proactivity in embracing inclusive education and are receptive to regular educational training with evolving concepts. Significant differences were observed in the perceptions of male and female students, indicating a notable contrast in their responses. However, no differences were observed in the perceptions of parents and teachers based on their gender. Moreover, high school students exhibited a more positive outlook compared to their middle school counterparts. Interestingly, perceptions among parents and teachers did not vary based on age or education level. In conclusion, the findings of this research support the validity of this study's hypothesis. Furthermore, Shutaleva, Zhanna, and Nilonova (2023) [21] advocated for the provision of proper and sustainable inclusive education training, emphasizing its effectiveness in enhancing instructors' proficiency and readiness to collaborate in meeting the needs of children with special needs.

While still a relatively new concept in the United Arab Emirates, the SIF Studio (Sustainable Inclusive Education Studio) approach represents a proactive initiative aimed at facilitating inclusive practices beneficial to all students, regardless of their varied abilities. The integration of SIF criteria into lesson planning by head teachers will be crucial to the success of this program. However, a major challenge lies in ensuring that all teachers receive adequate training in adopting this new approach and acquiring the necessary skills. Strategies such as co-teaching, integrated learning, UDL, and multi-tiered support systems exemplify sustainable inclusive education practices that have been successfully implemented worldwide to foster inclusive learning environments.

As this is a relatively new concept, there is ample opportunity for further research and validation to support the effectiveness of the SIFS.

To advance toward a more inclusive school environment, we recommend several improvements that should be considered at both the institutional and classroom levels. Firstly, all areas of the school must be fully accessible to everyone. This includes providing clear and accessible signage and wayfinding tools to assist individuals in navigating the campus, especially those with visual or mobility impairments Fylling, I., & Melbo, L., 2019) [22]. Secondly, various strategies can be implemented to support students with disabilities in their academic pursuits. These may include special orientation sessions, tutorials where a senior student or instructor serves as a mentor, or designating faculty

members as points of reference for individuals or groups regarding specific disabilities. Lastly, teachers must receive comprehensive training not only in teaching methodology but also in the subjects they will be teaching in the classroom (Tudge & Winterhoff, 1993, p. 61) [23].

All staff members must undergo mandatory training in instructional and methodological procedures to effectively address the needs of students with disabilities. Teachers should be well educated, skilled, and sensitive in utilizing universal designs for learning and inclusive pedagogy (Pliner and Johnson, 2004 [24]; Spratt and Florian, 2015 [25]). In summary, UAE schools must ensure that students with disabilities have equal access to all facilities. To ensure inclusivity in education and maximize the benefits of high-quality teaching and learning for every student, it is essential to reform rules and methods to adapt to evolving needs.

This research aims to advance inclusive education practices within educational institutions. The findings of this research have the potential to inform and guide educational institutions in developing and implementing inclusive environments. Through the design and implementation of the SIF Studio specifically tailored for educational institutions, this study analyzed factors that could promote collaborative efforts and embrace inclusivity. This contributes to the establishment of an educational landscape where every student can learn and thrive, regardless of their differences. Moving forward, further extensive research into the effectiveness of the SIF Studio's implementation is necessary. A key limitation of this research lies in solely analyzing the perceptions of teachers, parents, and students to assess the effectiveness of the SIF Studio. Future studies may consider conducting quasi-experimental research to provide additional support for the effectiveness of the SIF Studio. The quasi-experimental approach includes the rigorous methodological approach, and stratified random sampling, of the external validity threats and adds to the generalizability of this study. The present study was carried out in the same geographical setting, i.e., UAE, and the survey instruments and methods were tailored according to the context.

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**Informed Consent Statement:** Consent was obtained from participants involved in this study.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author.

**Conflicts of Interest:** The authors declare no conflict of interest.

## Appendix A

Here are some teacher training programs that are suggested under the SIF Studio:

### *Universal Design for Learning (UDL) Training*

UDL is an educational framework designed to provide flexible learning environments that accommodate individual learner differences. Teacher training programs in UDL empower educators to create inclusive classrooms by offering a variety of teaching methods, materials, and assessments to meet diverse student needs. Continuous training on implementing UDL in classrooms is essential for teachers. To support teachers in their UDL practice, a practical teacher's manual on UDL and resources on UDL should be made available.

### *Culturally Responsive Teaching Workshops*

These workshops help teachers understand and address the diverse cultural backgrounds of their students. Training in culturally responsive teaching encourages educators to adapt their teaching methods to create a more inclusive and equitable learning environment.

### *Trauma-Informed Education*

Teachers should receive training to recognize and support students who have experienced trauma. This approach fosters a more compassionate and understanding classroom environment in which students feel safe and supported.

### *Differentiated Instruction Training*

Differentiated instruction is a teaching strategy that customizes instruction to meet the unique needs of individual students. Teacher training programs in differentiated instruction can help educators adapt their lessons and assessments to accommodate students with various learning styles and abilities.

### *Inclusive Special Education Training*

Special education training programs, which include workshops on Individualized Education Plans (IEPs) and strategies for working with students with disabilities, are essential for creating an inclusive classroom. This training equips teachers with the necessary skills to effectively support students with special needs.

### *Restorative Justice and Conflict Resolution Training*

Educators undergo restorative justice training to cultivate a positive classroom culture, manage conflicts effectively, and guide students through collaborative issue resolution. This training nurtures an environment of inclusivity and mutual respect within the classroom.

### *Environmental and Sustainability Education*

The approach of connecting with nature, often referred to as the “green approach,” has shown great efficacy in working with special needs children. Thus, within this context, the SIF Studio emphasizes the importance of training teachers in environmental education to promote sustainability. Through such training, educators can adeptly integrate lessons on environmental issues, conservation efforts, and eco-friendly practices into their curriculum.

### *Social and Emotional Learning (SEL) Training*

Through SEL training, educators gain the necessary skills to assist students in developing emotional intelligence, self-awareness, and interpersonal abilities. This fosters an inclusive environment where emotional support is readily available. In an increasingly digital society, teacher training in digital inclusion and assistive technology is becoming essential. These programs ensure that all students, including those with disabilities, can access technology and digital resources. Such training initiatives are integral to the SIF Studio approach, as they promote diversity, equity, and inclusion in education, while also emphasizing sustainability and environmental awareness.

### *Student Support Systems*

Establish diversity and inclusion offices dedicated to fostering diversity and inclusion within educational institutions. These offices serve as hubs for providing resources, training, and support tailored to underrepresented and marginalized student groups.

### *Mentorship Programs*

Implement mentorship programs where students are matched with faculty, staff, or peer mentors who offer guidance and support. Such programs are particularly valuable for first-generation college students and those hailing from marginalized backgrounds.

*Financial Aid and Scholarships*

Provide a spectrum of financial aid options, including need-based scholarships and grants, to enhance accessibility for students from low-income backgrounds.

*Academic Support Centers*

Establish Academic Support Centers offering tutoring, workshops on study skills, and academic advising to bolster student success academically.

*Cultural Centers*

Establish Cultural Centers dedicated to celebrating diversity and fostering cultural understanding. These centers offer resources, organize events, and implement programs aimed at supporting students from diverse backgrounds.

*Emergency Funds and Basic Needs Support*

Establish emergency funds and support programs to aid students experiencing financial crises, helping with essentials such as food, housing, and transportation.

*Language Support Services*

Provide language support services, particularly for international students, to enhance their language proficiency and facilitate their adjustment to the academic setting.

*Career Services*

Ensure accessibility of career services for all students, providing guidance and resources for job searches, internships, and career development.

*Community engagement*

In the UAE, a society known for its diversity and tolerance, fostering inclusivity for people of determination within community engagement initiatives is integral to its identity.

**Special Olympics:** Encourage student participation in Special Olympics events to promote inclusivity and support athletic achievement.

The Access Ability Centre provides a platform for students to showcase their athletic, artistic, linguistic, and creative abilities. Meanwhile, the Bee Café stands out because it is operated by individuals of determination. Staff members at the café include degree holders with autism and Down syndrome and those who use a wheelchair. These individuals have undergone training in barista skills, customer service, and hospitality. Previous Scandinavian studies have shown that people with disabilities often have fewer opportunities for social participation compared to their able-bodied compatriots. However, the UAE has already taken measures to promote the economic and community inclusion of people of determination within mainstream society.

**Cultural and Diversity Celebrations:** Organize cultural festivals, diversity weeks, and other events to honor and celebrate the rich tapestry of cultures and backgrounds within the school community.

**Civic Engagement and Community Gardens:** Establish community gardens on school premises, serving both educational and communal purposes by providing fresh produce and fostering civic engagement within the community.

*Infrastructure modifications*

**Wayfinding and Signage:** Implement clear and accessible signage and wayfinding tools across campus to assist individuals, including those with visual or mobility impairments, in navigating the environment.

**Green Building Practices:** Integrate sustainable building techniques and technologies to reduce energy consumption, preserve resources, and promote environmental sustainability.

**Green Spaces:** Develop and maintain green spaces on campus, such as gardens, parks, and outdoor classrooms, to foster sustainability and create welcoming environments for all.

**Inclusive Recreation Facilities:** Modify or build recreation facilities with accessible exercise equipment, adaptive sports programs, and other amenities to cater to the diverse needs of students.

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