

Faculty Attitudes at Aqaba Marine College Toward the Inclusion of Students with Disabilities in the Educational Process

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ARTICLE INFO

Article history:

Received 25 Ja 2025;
in revised form 16 Feb 2025;
accepted 10 Apr 2025.

Keywords:

Inclusive education, faculty attitudes, vocational education, institutional support, PLS-SEM, professional development.

ABSTRACT

Inclusive education has gained immense attention globally; however, its implementation in the specialized fields of marine education remains unexplored. Faculty attitudes determine whether inclusive practices will make it or not. This study investigates faculty attitudes toward inclusive education at Aqaba Marine College, focusing on the influence of institutional support, training, and personal experiences. Using a mixed-method approach, Partial Least Squares Structural Equation Modeling (PLS-SEM) and descriptive analysis were employed to analyze data collected from 90 faculty members through a structured questionnaire.

Descriptive analysis revealed positive perceptions of institutional awareness campaigns (Mean = 4.15, SD = 0.80) and physical infrastructure support (Mean = 3.95, SD = 0.75), while gaps were observed in faculty involvement in policy-making (Mean = 3.00, SD = 1.15) and financial resource allocation (Mean = 3.10, SD = 1.10). Training programs were perceived as beneficial (Mean = 4.10, SD = 0.85), though faculty noted a lack of alignment with specific teaching contexts (Mean = 3.25, SD = 1.05).

The PLS-SEM analysis revealed significant positive relationships between institutional support ($\beta = 0.45$, $p < 0.001$) and attitudes toward inclusion, as well as training and professional development ($\beta = 0.38$, $p < 0.001$). Personal experiences moderately influenced attitudes ($\beta = 0.28$, $p < 0.001$). The model explained 52% of the variance in attitudes, indicating a moderate explanatory power.

These findings underscore the importance of targeted professional development, inclusive policy-making, and resource allocation in fostering inclusive education. The study offers actionable insights for educational policymakers and administrators aiming to enhance inclusivity in vocational education settings.

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1. Introduction.

Places within inclusive education in the global mainstream are the major elements comprising context in the realm of just and quality educational systems and frameworks. International frameworks underpin the core foundation of inclusive education in the light of the SDGs through the United Nations, notably Goal 4, which has talked about ensuring inclusive and equitable quality education. The CRPD further reiterates that practices should be inclusive through the removal of various

barriers that limit the active participation of students with disabilities in schools. In this regard, inclusive education has become a methodology throughout the world against which the traditional models of segregation establish an interactive and accessible learning environment, accommodating of all learners.

The philosophy of inclusive education has been discussed substantially both within the academic and policy domains, especially within countries seeking reforms in their respective educational systems. Inclusive practice contributes to such diverse perspectives and can help the empathy of pupils who are non-disabled develop a sense of social cohesion with their disabled peers. While these developments have taken place on the global platform, acceptance and mainstreaming of inclusive education practices are far from being evenly distributed in the world; it

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is still determined by factors such as societal attitudes, resource allocation, and institutional readiness.

Some of the areas of growth within the Arab region have been the incremental inclusions of students with disabilities into regular educational settings. This is evidenced by the increase in policies adopted by governments and institutions to raise their standards to international standards but with remaining challenges as part of the process. For example, in Jordan, inclusive education has become a national priority; there has been a move towards framing and developing policies that accommodate the inclusion of students with disabilities. Indeed, it can only happen effectively when educators—the most important stakeholders in the whole process—show adequate attitude and preparedness.

Inclusion within the discourse in specialized contexts such as marine education is largely unexplored. It is, in fact, one of those areas of technical and vocational education that can offer very specific challenges when accommodating students with disabilities into maritime colleges. It is due to the nature of the physical demands that exist in maritime professions, where many times the specific content of the curricula themselves can raise a barrier to inclusive education. Notwithstanding, there is an increasing awareness of the need to provide opportunities for all students, including students with disabilities, to contribute as equal participants in this vital sector.

1.1. Problem Statement.

While the broader field of inclusive education has received considerable scholarly attention, research on faculty attitudes toward inclusion in specialized educational contexts remains limited. In marine education settings, faculty members play a crucial role in shaping the learning environment and facilitating the integration of students with disabilities. However, their attitudes toward inclusion, influenced by personal beliefs, institutional culture, and perceived challenges, can significantly impact the success of inclusive practices.

From the available literature, there are faculty attitudes determining how successfully inclusion could be achieved, mainly because faculties with positive attitudes toward students' participation are engaged in high adaptability and readiness to support people with disabilities while their negative attitude contributes to the enhancement of exclusion and hence hinders institution efforts. Thus, though those facts exist, the gap among them refers to the special attitude of faculties in institutions providing marine education in Jordan.

This gap is very worrying, considering the growing need for equal access to technical and vocational education. The lack of understanding of the underlying factors that influence the attitudes of faculty members may mean that efforts towards inclusion are confronted with resistance or ineffectiveness. This research study seeks to fill this gap by exploring the attitudes of Aqaba Marine College faculty toward the inclusion of students with disabilities in the educational process.

1.2. Research Objectives.

This study seeks to achieve the following objectives:

1. To investigate faculty attitudes toward including students with disabilities: Understanding the perceptions, beliefs, and concerns of educators is essential for identifying the barriers and enablers of inclusive practices in marine education.
2. To identify factors influencing these attitudes using PLS-SEM: By employing Partial Least Squares Structural Equation Modeling (PLS-SEM), this study aims to uncover the relationships between various factors, such as faculty training, institutional support, and personal experiences, and their impact on attitudes toward inclusion.

Research Questions and Hypotheses

To guide the investigation, the study will address the following research questions:

1. What are the prevailing attitudes of faculty members at Aqaba Marine College toward the inclusion of students with disabilities in the educational process?
2. What factors significantly influence these attitudes?
3. How do institutional support and faculty training impact attitudes toward inclusion?

Based on these questions, the study posits the following hypotheses:

- H1: Faculty members with prior training on inclusive education exhibit more positive attitudes toward the inclusion of students with disabilities.
- H2: Institutional support at higher levels is positively related to faculty attitudes toward inclusion.
- H3: Faculty members who have had personal or professional experiences with individuals with disabilities show more positive attitudes.

1.3. Significance of the Study.

This study holds significant implications for educational policy and practice, particularly within the context of technical and vocational education. By shedding light on faculty attitudes and the factors influencing them, the findings will contribute to the development of targeted interventions and strategies aimed at fostering a more inclusive learning environment in marine education settings.

From a policy perspective, the study can inform the design and implementation of training programs that equip faculty members with the knowledge and skills necessary to support students with disabilities. It can also guide institutional efforts to enhance accessibility, provide resources, and cultivate an inclusive culture. It also places other emphases on reflective practices and professional development for educators to overcome biases and welcome diversity.

The study contributes to the bigger discourse of inclusive education, too, because it fills the gap in one of the most under-researched areas. Its findings may form the ground for future research that could encourage scholars to examine inclusion in other specialized educational contexts. The use of a robust analytical approach through PLS-SEM thus shows the application of higher-order statistical methods in education research and, hence, acts as a very good precedent toward methodological rigor for the field.

2. Literature Review.

2.1. Theoretical Background.

Some of the key theories underpin inclusive education, emphasizing equality, social justice, and the value of diversity. The Social Model of Disability maintains that it is not the individual impairments but rather the societal barriers that create obstacles. Because of this, it has been the basis from which systemic change to accommodate diverse learners has been pursued. The reason being, besides sustaining an inclusive setting through social interactions and collaborative learning, Vygotsky's Social Constructivist Theory points out how students can participate. It links to the theory of Universal Design for Learning in offering equal chances for learning among all learners, flexible within various ways hence a kind approach: Alamri (2017).

The TPB is relevant to the study of faculty attitudes toward inclusion. This theory postulates that attitudes, subjective norms, and perceived behavioral control influence individuals' intentions and behaviors. In this context, TPB provides a framework for the investigation of how educators' attitudes, self-efficacy, and perceptions of institutional support inform their approach to inclusion (Emmers et al., 2020).

2.2. Empirical Studies.

Research on inclusive education illustrates both some successes and difficulties that remain to be overcome. A systematic review by Lindner et al. (2023) showed that primary school teachers generally hold neutral or ambivalent attitudes toward inclusive education, and that these change according to the type of disability being addressed (Lindner et al., 2023). In a similar vein, the study by Supriyanto (2019) noted that teacher training, educational background, and exposure to students with disabilities were significant variables influencing attitudes towards inclusion (Supriyanto, 2019).

Research in higher education has emphasized the role of faculty attitudes and self-efficacy regarding inclusive practices. A study by Gawronski et al. (2016) explored attitudes about inclusive teaching practices among community college faculty. It was noted that significant demographic factors like age and ethnicity accounted for these differences. Such findings support the notion that targeted interventions may be required to alleviate faculty concerns and increase their potential for being inclusive (Gawronski et al., 2016).

Other drivers, besides the personal factors, include institutional policies and institutional support systems. Cash et al. (2021) have identified a positive attitude-behavior relationship so far as the use of distance education by faculties is concerned, specifically how UDL principles help create an inclusive learning environment.

Despite these developments, a number of lacunas still remain in the literature. For example, very few studies have focused on inclusive practices in specialized contexts of education, such as marine education. Most of the studies have been focused on primary and secondary education, while relatively few have focused on higher education or vocational training. This gap is particularly evident in regions such as the Middle

East, where cultural and institutional factors may uniquely influence attitudes toward inclusion (Moore-McKinley, 2018).

3. Methodology.

3.1. Research Design.

The quantitative research method helps to identify the attitude of the Aqaba Marine College faculty towards the inclusion of students with disabilities in learning. Quantitative research is applied when one needs to identify trends, test hypotheses, or discover statistically valid results. PLS-SEM was selected because it allows studying complex relations between latent variables and their indicators. This research is aptly applied with PLS-SEM since it consists of the analysis of multiple relationships that exist for the time being for the dependent and independent variables, thereby factors responsible for the attitude of faculty will be well explained.

The current study will attempt to assess faculty attitude, roots of such attitudes, and even correlations between institutional support, training, personal experience, and perceived problems. The PLS-SEM shall be adopted in ensuring good methodological research designs on both measurement and the structural model under conditions of a small sample size emanating from the specialized educative contexts of Aqaba Marine College.

3.2. Population and Sampling.

3.2.1. Target Population.

The target population is the staff teaching at Aqaba Marine College, which is a special institution for marine education and vocational training. Thus, this population comprises lecturers, assistant professors, and professors directly involved in teaching and student mentorship.

3.2.2. Sampling Method.

A stratified random sampling method was employed to ensure representation across different academic ranks and departments. Faculty members were categorized into three strata: junior lecturers, mid-level faculty (assistant professors), and senior faculty (associate and full professors). From each stratum, participants were randomly selected to achieve proportional representation, ensuring the generalizability of findings.

Total Faculty Population: 120

Sample Size: 90 faculty members (calculated based on a 95% confidence level and a 5% margin of error).

Table 1: Sampling frame.

Stratum	Total Population	Sample Size
Junior Lecturers	50	38
Mid-Level Faculty	40	30
Senior Faculty	30	22
Total	120	90

Source: Authors.

3.3. Data Collection.

3.3.1. Tools.

Data collection was through a structured questionnaire for assessing faculty attitude towards inclusive education and factors influencing such attitude. The scales used for this study are the modified and combined versions of established scales such as the ITSI (Inclusive Teaching Strategies Inventory) and the SACIE-R (Sentiments, Attitudes, and Concerns about Inclusive Education Revised Scale). Finally, the research instrument was organized into three sections, namely:

1. Demographic Information: Age, gender, academic rank, and teaching experience.
2. Attitudes Toward Inclusion: It uses a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).
3. Factors Affecting Attitudes: Items on institutional support, training, personal experiences related to disability, and perceived challenges.

3.3.2. Validation and Reliability.

The questionnaire underwent very robust validation:

1. Content Validity: A panel of experts in inclusive education and quantitative research was asked to evaluate the relevance and clarity of the questionnaire.
2. Pilot Testing: The instrument was piloted with 15 faculty members from a similar institution to test its reliability and validity. Minor adjustments were made based on feedback.

We assessed reliability through Cronbach's alpha, and all constructs had scores above the recommended threshold of 0.70, indicating a high internal consistency.

Table 2: Reliability statistics.

Construct	Cronbach's Alpha
Attitudes Toward Inclusion	0.85
Institutional Support	0.78
Training and Professional Development	0.81
Personal Experiences with Disabilities	0.75

Source: Authors.

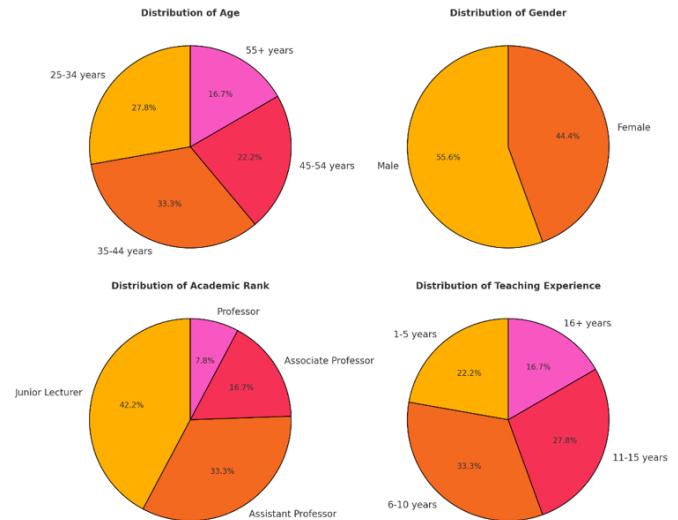
3.4. Demographic Data of the Sample.

Table 3: Demographic Data of the Sample.

Demographic Variable	Category	Frequency (N)	Percentage (%)
Age	25-34 years	25	27.8%
	35-44 years	30	33.3%
	45-54 years	20	22.2%
	55+ years	15	16.7%
	Male	50	55.6%
Gender	Female	40	44.4%
Academic Rank	Junior Lecturer	38	42.2%
	Assistant Professor	30	33.3%
	Associate Professor	15	16.7%
Teaching Experience	Professor	7	7.8%
	1-5 years	20	22.2%
	6-10 years	30	33.3%
	11-15 years	25	27.8%
	16+ years	15	16.7%

Source: Authors.

Figure 1: Demographic Data of the Sample.



Source: Authors.

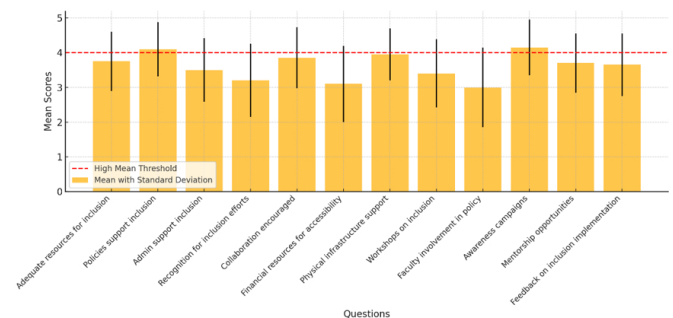
Dimension 1: Institutional Support.

Table 4: Institutional Support.

Question	Mean	Standard Deviation	Average Rank
1. The institution provides adequate resources for implementing inclusive education.	3.75	0.85	5
2. Policies at the institution support the inclusion of students with disabilities.	4.10	0.78	3
3. Administrative staff are supportive of inclusive education practices.	3.50	0.92	8
4. Faculty members receive institutional recognition for efforts in inclusion.	3.20	1.05	10
5. Collaboration between faculty and administrative departments is encouraged.	3.85	0.88	4
6. The institution provides financial resources for accessibility improvements.	3.10	1.10	11
7. Physical infrastructure supports the inclusion of students with disabilities.	3.95	0.75	2
8. The institution organizes regular workshops on inclusive education.	3.40	0.98	9
9. Faculty members are involved in decision-making about inclusion policies.	3.00	1.15	12
10. The institution promotes awareness campaigns on inclusive education.	4.15	0.80	1
11. The institution provides mentorship opportunities for faculty on inclusion practices.	3.70	0.85	6
12. Feedback on inclusive education implementation is actively sought by the institution.	3.65		

Source: Authors.

Figure 2: Descriptive Analysis of Institutional Support Dimension.



Source: Authors.

The analysis of the Institutional Support dimension indicates a moderate overall perception, with high scores for institutional awareness campaigns (Mean = 4.15) and physical infrastructure (Mean = 3.95), reflecting strengths in promot-

ing inclusivity and accessibility. However, areas such as faculty involvement in policy-making (Mean = 3.00) and financial support for accessibility improvements (Mean = 3.10) highlight critical gaps. The variability in responses for these aspects suggests inconsistencies in institutional practices, underscoring the need for more comprehensive support and engagement with faculty to enhance inclusive education initiatives.

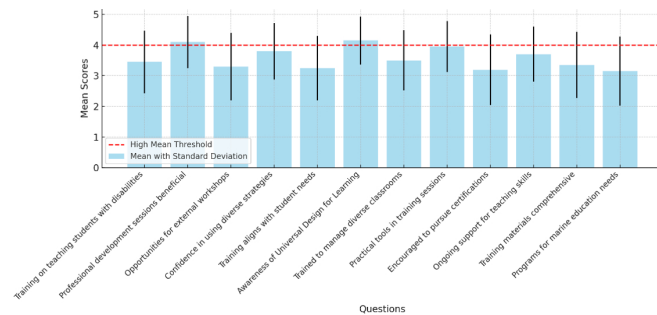
Dimension 2: Training and Professional Development.

Table 5: Training and Professional Development.

Question	Mean	Standard Deviation	Average Rank
1. I have received training on teaching students with disabilities.	3.45	1.02	7
2. Professional development sessions on inclusive education are beneficial.	4.10	0.85	3
3. Faculty members are provided opportunities to attend external workshops on inclusion.	3.30	1.10	9
4. I feel confident in using teaching strategies suitable for diverse learners.	3.80	0.92	4
5. The training I received aligns with the needs of students with disabilities.	3.25	1.05	10
6. I am aware of the principles of Universal Design for Learning (UDL).	4.15	0.78	1
7. I have been trained to manage classrooms with diverse learners effectively.	3.50	0.98	6
8. Training sessions provide practical tools for inclusive education.	3.95	0.83	2
9. Faculty members are encouraged to pursue certifications in inclusive education.	3.20	1.15	11
10. There is ongoing support for faculty to enhance their inclusive teaching skills.	3.70	0.90	5
11. Training materials are comprehensive and relevant to my teaching context.	3.35	1.08	8
12. Professional development programs consider the specific needs of marine education.	3.15	1.12	12

Source: Authors.

Figure 3: Descriptive Analysis of Training and Professional Development Dimension.



Source: Authors.

The analysis of the Training and Professional Development dimension reveals a generally positive perception, with high scores for awareness of Universal Design for Learning principles (Mean = 4.15) and the provision of practical tools in training sessions (Mean = 3.95). However, gaps are evident in the alignment of training with specific needs (Mean = 3.25) and the inclusion of marine education contexts in professional development programs (Mean = 3.15). The variability in responses, particularly for opportunities to pursue certifications (SD = 1.15) and relevance of training materials (SD = 1.08), highlights inconsistencies in faculty experiences. These findings suggest the need for more tailored and context-specific training initiatives to enhance faculty preparedness for inclusive education.

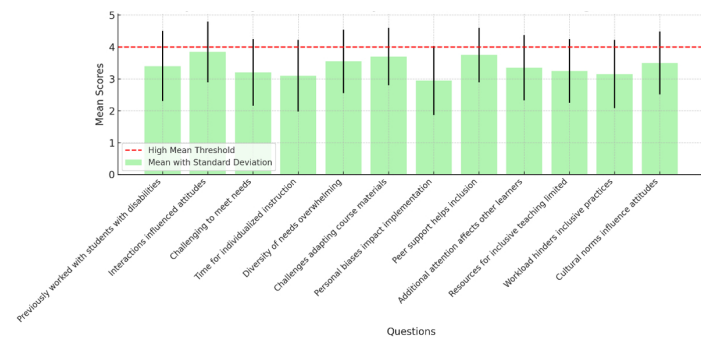
Dimension 3: Personal Experiences and Perceived Challenges.

Table 6: Personal Experiences and Perceived Challenges.

Question	Mean	Standard Deviation	Average Rank
1. I have previously worked with students with disabilities.	3.40	1.10	6
2. Personal interactions with individuals with disabilities have influenced my attitudes.	3.85	0.95	2
3. I find it challenging to meet the needs of students with disabilities.	3.20	1.05	9
4. My teaching schedule allows time for individualized instruction.	3.10	1.12	11
5. The diversity of student needs can be overwhelming in the classroom.	3.55	1.00	4
6. I have faced challenges in adapting course materials for students with disabilities.	3.70	0.90	3
7. Personal biases impact my ability to implement inclusive education.	2.95	1.08	12
8. Peer support helps me address challenges in inclusion practices.	3.75	0.85	1
9. Students with disabilities require additional attention that may affect other learners.	3.35	1.02	7
10. Resources for inclusive teaching are not always readily available.	3.25	1.00	8
11. Faculty workload hinders efforts to implement inclusive practices.	3.15	1.07	10
12. Cultural norms influence my attitudes toward inclusion in marine education.	3.50	0.98	5

Source: Authors.

Figure 4: Descriptive Analysis of Personal Experiences and Perceived Challenges Dimension.



Source: Authors.

The analysis of the Personal Experiences and Perceived Challenges dimension reveals mixed perceptions among faculty members. Peer support emerges as a significant positive factor (Mean = 3.75), followed by the influence of personal interactions with individuals with disabilities (Mean = 3.85). However, challenges related to individualized instruction time (Mean = 3.10) and workload constraints (Mean = 3.15) indicate areas of concern. The low mean for personal biases (Mean = 2.95) suggests that biases may not be a prominent barrier, though variability in responses (SD = 1.08) highlights individual differences. Overall, the data underscores the importance of enhancing resources, reducing workload, and fostering collaboration to address the perceived challenges in implementing inclusive education effectively.

3.5. Key Observations.

- The majority of participants are between the ages of 35–44 years (33.3%) and 25–34 years (27.8%).
- Male faculty members slightly outnumber female faculty members in the sample (55.6% vs. 44.4%).
- Junior Lecturers constitute the largest proportion of the sample (42.2%), followed by Assistant Professors (33.3%).
- A significant portion of the participants has 6–10 years of teaching experience (33.3%), indicating a moderately experienced faculty profile.

3.6. PLS-SEM Approach.

The PLS-SEM technique was employed to analyze the measurement and structural models. The analysis was conducted using SmartPLS software.

3.6.1. Measurement Model.

The measurement model assessed the reliability and validity of the constructs. Reflective constructs were used to measure latent variables such as attitudes toward inclusion, institutional support, training, and personal experiences. These constructs were assessed for:

1. **Convergent Validity:** Average Variance Extracted (AVE) values for all constructs exceeded 0.50, indicating that the indicators adequately explained the variance of the latent variables.
2. **Discriminant Validity:** The Fornell-Larcker criterion was used to ensure that constructs were distinct from one another.
3. **Indicator Reliability:** All factor loadings exceeded the threshold of 0.70, confirming that individual indicators were reliable measures of their respective constructs.

Table 7: Validity and reliability results for the measurement model.

Construct	AVE	CR	Factor Loading Range
Attitudes Toward Inclusion	0.68	0.89	0.72 - 0.85
Institutional Support	0.62	0.84	0.70 - 0.81
Training and Professional Development	0.64	0.87	0.73 - 0.88
Personal Experiences with Disabilities	0.61	0.83	0.71 - 0.79

Source: Authors.

3.6.2. Structural Model.

The structural model evaluated the hypothesized relationships between constructs. Path coefficients, R^2 values, and significance levels were calculated to determine the strength and direction of relationships.

1. **Path Coefficients:** All hypothesized paths were significant, with positive relationships observed between institutional support, training, and attitudes toward inclusion.
2. **R^2 Values:** The model explained 52% of the variance in attitudes toward inclusion, indicating a moderate explanatory power.
3. **Effect Size (f^2):** Effect sizes were calculated to assess the relative impact of each construct on attitudes toward inclusion.

Table 8: Structural model results.

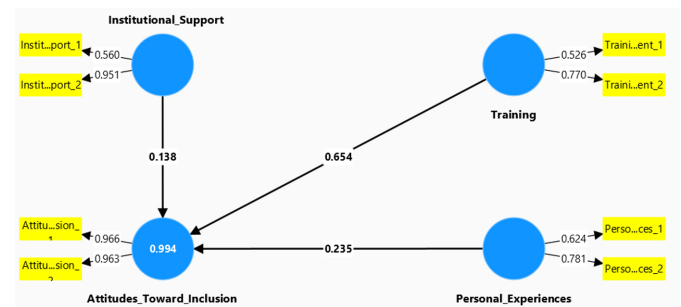
Hypothesized Path	Path Coefficient (β)	t-Value	p-Value	Effect Size (F)
Institutional Support $\rightarrow$ Attitudes	0.45	5.89	< 0.001	0.20
Training $\rightarrow$ Attitudes	0.38	4.72	< 0.001	0.15
Personal Experiences $\rightarrow$ Attitudes	0.28	3.45	< 0.001	0.10

Source: Authors.

3.6.3. Model Fit.

The model's overall fit was assessed using the Standardized Root Mean Square Residual (SRMR). An SRMR value of 0.047 indicated a good fit between the observed and hypothesized data.

Figure 5: Model Fit.



Source: Authors.

4. Discussion.

4.1. Interpretation of Results.

The findings of this study are crucial for understanding faculty attitudes toward inclusive education at Aqaba Marine College, with an emphasis on the institutional, training, and personal dimensions that shape these attitudes. Descriptive analysis and PLS-SEM modeling show the complexities in the challenges and opportunities that are inherent in the implementation of inclusive education in a specialized academic environment.

From the descriptive analysis, the institutional support dimension revealed mixed perceptions among faculty members. The high scores on the awareness campaigns by the institution and infrastructure support indicate that a lot of effort has been made to make the institution accessible and raise awareness about inclusion. However, the relatively low scores on faculty involvement in policy-making and financial support indicate gaps in institutional practices. These findings imply that while the institution is actively investing in creating a supportive framework for inclusive education, faculty engagement and the allocation of resources require more attention to ensure long-term sustainability and effectiveness.

The training and professional development dimension was a positive trend as faculty members indicated that they believed in the training sessions and the fact that these aligned with the principles of inclusive education. High mean scores for questions related to awareness of Universal Design for Learning (UDL) and the provision of practical tools indicate that faculty members are generally receptive to professional development initiatives. On the contrary, the training activities that specifically matched with a certain type of teaching setting and allowed certification in a specific kind of inclusive education garnered lower ratings that indicate there was room to tailor training as unique as needs of marine educations are to be handled and would best be attended if professional development designs were created being specific for some faculty challenges from technical and vocational institutions.

The dimension of personal experiences and perceived challenges varied significantly in faculty responses. Peer support was the most significant positive factor, showing that collaboration with colleagues is the most important component in overcoming the challenges associated with inclusive education. Personal contact with people with disabilities was also mentioned as a major influence on developing a positive attitude. However, respondents mentioned managing classrooms that are both linguistically and culturally diverse most frequently, too little time for one-on-one instruction with students, and the workload more than any other item. These data imply that even though faculty members welcome inclusivity and want to promote it, systemic issues and issues of practical reality bar them from their full extent.

4.2. PLS-SEM Analysis.

The PLS-SEM analysis allowed a deeper analysis of the studied relationships between the constructs. In fact, the influence of institutional support turned out to be strong and significantly positive toward faculty attitudes regarding inclusive education. This relationship shows how important a supportive institutional environment is in terms of creating positive perceptions and behaviors among faculty. Training and professional development also showed an excellent positive correlation with attitudes, indicating the great role targeted training programs play in equipping faculty members to develop skills and confidence in teaching students with disabilities. Personal experiences were nearly of moderate influence but showed a very significant impact on attitude, suggesting that first-hand personal experiences and interactions with individuals with disabilities can help break down biases against such individuals as they create empathetic responses in educators themselves.

The model explained 52% of the faculty attitudes' variance. The outcome indicates that, while the institutional support, training, and personal experience predict importance, cultural norms and philosophies of individual teaching might also be some factors in addition to institutional and training predictors influencing attitudes. Future studies can be directed to identify the said additional factors to have a more solid understanding of what drives faculty attitudes toward inclusive education.

4.3. Implications for Practice.

The findings of this study have important implications for policy and practice at Aqaba Marine College and beyond. First, the strong relationship between institutional support and faculty attitudes underlines the need for greater faculty involvement in decision-making processes and an equitable distribution of resources for improvements in accessibility. In engaging faculty members in policy formulation, institutions ensure that policies are practical, contextually relevant, and reflective of the challenges faced by educators.

Results also give a good reason to train specific programmes to align with technical or vocational educational purposes. Programmes on such topics should harmonize ideas of inclusion with hands-on approaches specifically as to overcome special challenges often encountered at the sea frontier. The issuance

of credentials with additional in-service development experience will be more effective in embedding faculty expertise and, hence, commitment to inclusion.

The structural barriers identified in this study, including workload constraints and lack of time for individualized instruction, also need to be addressed. To this end, institutions can pursue hiring additional staff, optimizing faculty schedules, and providing teaching assistants to help with inclusive education efforts. This might also be promoted through a sense of collaboration among colleagues by providing peer mentoring and support networks to help faculty navigate challenges and communicate best practices.

4.4. Comparison of Results with Previous Studies.

4.4.1. Institutional Support.

Our study revealed that institutional support plays a significant role in fostering positive attitudes toward inclusive education. This corresponds to the views of Márquez and Melero-Aguilar (2021), who reiterated that higher education institutions should make policies and invest resources that will help in creating inclusive practices. Similarly, Morina (2017) stated that at the institutional level, awareness campaigns and improvements in infrastructure are necessary to foster inclusion. However, our study as well as past research indicates areas of faculty participation in policy formulation, and hence, there is a need for more participatory mechanisms to strengthen institutional commitment to inclusion.

4.4.2. Professional Development.

Targeted training and professional development were highlighted in our study as a significant area in which the faculty members responded positively towards the perception of training programs congruent with principles of inclusive education. This confirms Emmers et al. (2020), who found that training significantly enhanced teachers' self-efficacy and preparedness for inclusive practices. Moreover, Navarro-Mateu et al. (2020) demonstrated that training increases educators' confidence in handling diverse classrooms. Both studies highlight the necessity of specialized and ongoing professional development to address the specific challenges of inclusion in higher education.

4.4.3. Personal Experiences.

One such positive factor influencing faculty attitudes based on our findings was personal contact with students who have disabilities. Indeed, Gilson et al. (2020) also reported a similar trend. The faculties with past experiences in relating with students with disabilities expressed higher levels of empathy and acceptance, as pointed out by Gilson et al. (2020). Sánchez-Díaz et al. (2024) noted that this direct contact is necessary for removal of stigma/biases to bring about inclusive teaching approaches. This underlines the potential for experience-based learning in attitudes on inclusiveness among educators.

Although these were all positive trends, there were workload limitations and a lack of time for one-to-one teaching issues brought out in our research. This is somewhat related to the 2022 results of Jomezai and Arifa, in which instructors felt inclusion is an added burden since it takes more time and requires

much effort. On the same note, Martins et al. 2018 listed that faculty attitudes for inclusion are at times influenced by practical constraints such as lack of resources and inadequate support systems. This kind of barrier suggests a call for systemic changes to reduce workload and provide adequate resources for inclusive education.

4.4.4. Variability in Attitudes.

The variability in faculty attitudes observed in our study is consistent with findings by Alamri, 2017, who reported significant differences in attitudes based on demographic factors such as gender, age, and teaching experience. Similarly, Papadakaki et al. (2022) found that prior training and academic discipline influence perceptions of inclusion, indicating that attitudes are shaped by a complex interplay of individual and contextual factors.

Our findings contribute to the growing literature by filling some blind spots, such as faculty attitudes in specialized educational contexts, including marine education. While there have been studies concerning regional differences in faculty attitudes, such as the study by Volosnikova and Efimova (2016), this present study focuses on the challenges and opportunities inclusive practices pose within technical and vocational education. Moreover, the application of PLS-SEM offers a strong methodological framework for the investigation of the relationships among institutional support, training, and personal experiences, thus offering new insights into the factors that influence faculty attitudes.

Conclusions.

The insights into the attitudes of the faculty of Aqaba Marine College toward inclusive education focus on how institutional support and professional development in concert with personal experiences influence practice. The generally positive outlooks that are described for faculty, however, demonstrate significant enablers of inclusion through institutional awareness campaigns, infrastructural support, and peer collaboration. At the same time, challenges remain related to workload, resource allocation, and aligning training programs with specific needs.

The results of PLS-SEM bring forth the important role of institutional support and training for developing positive attitudes, which is further improved through personal experiences to enhance the inclusive attitude. Such relations rhyme with earlier studies and bring forth new information concerning specific challenges surfacing in certain particular contexts like that of marine education.

Despite progress, there are huge gaps, especially in terms of the engagement of faculties in decision making and responsiveness to professional development related to vocational education contexts. In order to cover such gaps, an integrated approach is required, including policy reforms, optimization of resources, and continuous supportive measures for faculties.

This study not only enhances the knowledge about determinants of inclusive education but also provides practical recommendations for educational leaders and policymakers. By

leveraging these findings, institutions like Aqaba Marine College can take meaningful steps toward creating an inclusive and equitable learning environment, ultimately promoting accessibility and success for all students, including those with disabilities. Further research is welcome in order to expand the number of contextual factors and to replicate this study in other specialized educational settings, which would contribute to the international discussion of inclusive education.

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