



Acceptance of University Students Toward Deaf Classmates in The Higher Educational Settings

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Abstract. The presence of deaf individuals in higher educational settings presents challenges attributable to their hearing impairment. This study aims to explore the level of acceptance that hearing university students have towards their deaf classmates. A total of 79 hearing university students participated in completing a questionnaire comprising 19 items, rated on a Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). The data underwent analysis using non-parametric statistical methods (Spearman Correlation coefficient) and multiple regression analysis. Results revealed a significant correlation between class participation and prior interactions with deaf individuals and the acceptance levels of hearing university students towards their deaf classmates. Specifically, those who had prior experiences with deaf individuals exhibited a higher level of acceptance in the higher educational settings. The findings suggest that exposure and interaction with deaf individuals positively influence acceptance among hearing university students. As students gain more experience in engaging with deaf individuals, their acceptance of this community increases.

Keywords: Deaf Classmates, Higher Educational Settings, University Students

1 Introduction

Deaf individuals employ various effective communication methods for social interactions, both among themselves and with hearing individuals. Typically, these communication methods include the use of signs, oral communication, a combination of signs and oral communication [1], total communication, symbolic interaction [2] and written language [3]. In the context of Indonesia, deaf individuals use two distinct sign languages for communication: the Indonesian Sign Language System (SIBI) and Indonesian Sign Language (Bisindo).

The intelligence of deaf children is intricately linked to the challenges they face and the communication methods they master, though this remains a topic of ongoing debate. Some researchers assert that deaf individuals exhibit lower cognitive abilities compared to their hearing counterparts [4] and achieve lower academic outcomes [5]. However, it is essential to note that deaf individuals possess academic potential akin to their hearing counterparts.

In contrast, other researchers argue against the presence of IQ-related issues resulting from hearing impairments [6] and emphasize the absence of significant differences in cognitive abilities between deaf and hearing students [7]. Instances where deaf individuals face academic challenges are attributed not necessarily to their hearing impairment but rather to the lack of accommodations, such as verbalized learning, which hampers comprehension of educational material [6]. However, once enrolled in inclusive higher education, deaf individuals demonstrate comparable performance to their hearing peers in cognitive and linguistic tests [8].

Regrettably, deaf individuals often encounter more challenges and experience fewer friendships compared to their hearing counterparts [9]. The dynamics of peer relationships between deaf and hearing children necessitate interaction, but persistent communication barriers pose significant challenges within inclusive education settings [10]. These obstacles, in turn, impact the participation and engagement of deaf students in the classroom [11].

Merely being physically present in a mainstream classroom alongside hearing friends does not guarantee social integration for deaf children. In reality, the interactions that deaf individuals have with their peers can significantly contribute to their academic success [12]. Conversely, providing social support to hearing students can enhance the adjustment of deaf individuals to college life [13]. Consequently, fostering peer acceptance of the presence of deaf individuals in inclusive classes emerges as a crucial factor in facilitating the educational success of deaf children in college.

Research has extensively explored the acceptance of deaf students by their hearing counterparts in elementary to high school educational settings, revealing that deaf students often experience lower levels of social integration and acceptance among their peers [14]. On a positive note, some research suggests that deaf students can have supportive and positive experiences through interpersonal relationships [15]. Surprisingly, there is a notable scarcity of research focusing on the acceptance of deaf peers by regular students in higher education. Examining the acceptance of hearing-impaired students in higher education becomes crucial as an initial step for institutions to provide the necessary support for deaf students within inclusive educational environments. Consequently, researchers are keen on delving deeper into the dynamics of students' acceptance of their deaf peers and understanding the impact of various variables on this acceptance. Deaf individuals employ various effective communication methods for social interactions, both among themselves and with hearing individuals. Typically, these communication methods include the use of signs, oral communication, a combination of signs and oral communication [1], total communication, symbolic interaction [2] and written language [3]. In the context of Indonesia, deaf individuals use two distinct sign languages for communication: the Indonesian Sign Language System (SIBI) and Indonesian Sign Language (Bisindo).

2 Method

This study enlisted the participation of 79 regular university students in Universitas Sultan Ageng Tirtayasa and Universitas Pendidikan Indonesia. The questionnaire utilized in this research was adopted from Cambra [16], and underwent adaptation before being translated into Indonesian. The questionnaire comprised 19 statements, and responses were gauged on a Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). Table 1 presents the demographic details of the participants involved in this study.

Table 1. Participant Demographics.

Category		Total
Gender	Male	9 (11.39%)
	Female	70 (88.61%)
Class	2023	32 (40.51%)
	2020	22 (27.85%)
	2021	25 (31.64%)
Experience interacting with deaf individuals	Yes	41 (51.90%)
	No	38 (48.10%)

Table 2. Category Mean Value of the Acceptance Questionnaire

Mean	Value
1.00 - 1.80	Very Low
1.81 - 2.60	Low
2.61 - 3.40	Moderate
3.41 - 4.20	High
4.21 - 5.00	Very High

The Cronbach's Alpha coefficient, with a value of 0.89, indicates a high level of reliability for the questionnaire. To ensure uniform interpretation, reverse coding was applied to questions numbered 2, 3, 5, 7, 10, 11, 14, 15, and 18. This adjustment ensures that a higher mean score reflects a more positive acceptance of deaf students in the classroom. The categorization of the average scores from the acceptance questionnaire is presented in Table 2.

3 Result

Table 1 provides an overview of the participant demographics, categorizing regular students based on variables such as gender, class, and prior experience interacting with deaf individuals. The majority of participants in this research were females. However, when considering class category and experience interacting with deaf students, the distribution appears to be relatively balanced.

Table 3 presents the results of regular student acceptance regarding the presence of deaf students in class. To ensure consistent interpretation, reverse coding has been applied to items numbered 2, 3, 5, 7, 10, 11, 14, 15, and 18, where a higher average signifies stronger positive acceptance. In general, regular student acceptance of deaf students in college classes is moderate ($M = 2.70$).

Among the items, eight indicate relatively poor acceptance, with three key areas standing out: the opportunity for deaf students to study in regular classes at universities (item 14, $M = 1.38$), the desire to have deaf students as classmates (item 11, $M = 1.39$), and involvement in friendships with deaf students (item 15, $M = 1.49$). Conversely, regular students do not find the presence of deaf students in class to be bothersome (item 16, $M = 4.62$), and they express comfort when working in groups with deaf students (item 19, $M = 4.10$).

Table 3 Average Score per Statement Item and Standard Deviation

No	Item statement	Average score	SD
1	The needs of deaf students can be better met in special classes for the deaf.	2.05	.959
2	Lecturers will not have more patience with deaf students than with hearing students.	2.27	1.022
3	By attending classes with hearing classmates, a deaf student will not receive a better education.	1.90	.794
4	The attention required by deaf students will disrupt the rhythm of the class.	3.95	.783
5	Having deaf students as classmates would not help me understand the problem.	2.97	1.050
6	Deaf students will learn more in a special class for the deaf than in our class.	2.24	.937
7	Having a classmate who is deaf is not a very positive experience.	1.54	.712
8	Deaf students will experience personality problems if they study in our class.	3.78	.872
9	Deaf students will feel isolated in our classes.	3.66	1.061
10	In general, deaf students tend to be no more hardworking than hearing students.	2.48	1.060
11	I don't want any deaf students in my class.	1.39	.668
12	If deaf students continue their higher education in regular classes, they will be more independent.	2.59	.840
13	Deaf students are most likely to experience behavioral problems if they study in regular classes.	3.42	.928
14	All deaf students should not have the opportunity to study in regular classes at college.	1.38	.685
15	A deaf student cannot be one of my best friends.	1.49	.714
16	Deaf students will be a nuisance in class.	4.62	.704
17	Talking to deaf students would be difficult for me.	3.75	.824
18	A deaf student would not have fun with my friends.	1.76	.755
19	Being in a project/assignment group with deaf students is certainly very disturbing	4.10	.778
Total		2.70	1.045

Additionally, table 4 illustrates the correlations between the research variables (gender, class, and experience interacting with deaf individuals) and the acceptance scores of deaf students. Notably, the most robust correlations are observed with class

variables (.292) and experience interacting with deaf students (.233), whereas gender exhibits a negative correlation (-.019).

Table 4 Correlation Between Variables and Acceptance Scores

		Gender	Class	Experience	Score
Spearman's rho	Gender	1.00			
	Class	-.039	1.00		
	Experience	-.026	.184	1.00	
	Score	-.109	.292**	.233*	1.00

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

To assess the degree of association between variables and student acceptance, a multiple regression analysis was conducted. The findings revealed that the three variables examined in this research accounted for 10.8% of student acceptance, indicating that the remaining portion is influenced by other variables not considered in this study.

4 Discussion

Overall, this study reveals a moderate level of acceptance among regular students towards the inclusion of deaf friends in their classes. This aligns with the findings of a study conducted by Cambra [16], affirming that deaf individuals can be socially well-accepted by their hearing peers.

Despite the generally positive acceptance, there are specific aspects that demonstrate lower, and in some cases, very poor acceptance. For instance, the opportunity for deaf students to study in regular university classes is an area that exhibits less favorable results. These outcomes resonate with prior research, indicating that, according to hearing students, deaf individuals might be better placed in special schools [16]. Additionally, there is reluctance among hearing students to desire deaf classmates and involve them in friendships. However, it is noteworthy that the presence of deaf students in the classroom is not perceived as bothersome by regular students, and they express a willingness to collaborate with deaf peers in group settings.

Moreover, male students exhibit a more positive acceptance of deaf friends in their classes compared to their female counterparts. This finding diverges from the research conducted by Cambra [16], which concluded that young women tend to have stronger support for the inclusion of deaf individuals in classes than young men. A positive correlation is evident between class variables and student acceptance. Specifically, first-year students demonstrate lower acceptance compared to second- and fourth-year students. The analysis results indicate that as students' progress through their academic journey, their acceptance of deaf classmates improves. One plausible explanation for these findings is that increased interaction between hearing students and deaf students positively influences the acceptance of the latter. This emphasizes that meaningful interactions, close relationships or friendships, and the breakdown of communication

barriers contribute to positive attitudes that facilitate the successful inclusion of deaf or hard of hearing (D/HH) students [17]. Moreover, students' past experiences interacting with deaf peers significantly contribute to a more positive acceptance of deaf students. Those who had prior interactions with deaf individuals, beyond their classmates, demonstrated higher levels of acceptance compared to those with no prior experience with deaf individuals. This highlights that exposure to deaf culture can foster positive attitudes [18]. In the context of this study, these three variables collectively account for 10.8% of the variance in the acceptance of deaf students, with the remaining 89.2% being influenced by other unexamined variables.

5 Conclusion

In conclusion, students exhibit a moderate level of acceptance towards their deaf classmates. The positive trend in acceptance is notably influenced by the duration of opportunities for interaction with deaf students and the richness of experiences gained through such interactions. Engaging with deaf individuals further fosters acceptance, emphasizing the role of familiarity and exposure in shaping attitudes. It is hoped that universities will persist in offering opportunities for deaf individuals to pursue higher education. This consideration is vital, given that acceptance by their regular peers is likely to evolve positively alongside the accumulation of experiences and the prolonged duration of interactions between both groups.

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