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TOWARDS DEAF PEOPLE IN THE FORMATION OF NON-
DISCRIMINATORY SOCIAL INTERACTIONS**

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Abstract:

The background of this study is the diversity of adolescent attitudes towards deaf people with disabilities that have the potential to influence social interactions, levels of acceptance, and the emergence of discriminatory behavior in the school environment. This study aims to assess changes in adolescents' attitudes toward deaf people before and after a sign language workshop, focusing on cognitive, affective, and conative dimensions. The study participants were 116 students of SMK Negeri 07 Pekanbaru who participated in the Sign Language Workshop in commemoration of International Sign Language Day on September 23, 2025. The methods used included direct observation during the activity and measurement using the Adolescent Attitude Scale towards Deaf People with Disabilities consisting of 20 items with cognitive, affective, and conative aspects. The results of the pre-test assessment

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Introduction

The period of social development during adolescence is very important because during this period, adolescents have begun to build self-identity, assessment systems, and more complex interpersonal relationship patterns that are influenced by social interactions, social categorization processes, stereotypes, and direct and indirect experiences with these groups. This also applies to people with disabilities as a basis for social behavior in adulthood, including in creating inclusive or discriminatory relationships and interpersonal communication patterns with deaf individuals often become obstacles in building equal social interactions with their peers. (Rohman et al., 2025). The majority of students do not have good skills to interact with students with disabilities, which can give rise to negative stereotypes and discrimination because they tend to have wrong perceptions and negative stigmas towards people with disabilities by treating them equally, thus causing social distance to widen (Istiani et al., 2025). This condition also affects the cognitive and social emotional development of people with disabilities (Yue, 2024) so that people with disabilities have difficulties in the learning process, self-development and social interaction (Anastasya M. Manurung et al., 2025).

Education is a basic right of every individual, including deaf people, to enable them to develop their potential, personality and social skills and contribute positively to society (Rufi Nurfaima et al., 2023). The learning environment is a combination of physical, social and psychological factors to form an educational climate that is able to form interactions between teachers, between students, between teachers and students to produce emotional security, emotional

comfort and a feeling of acceptance amidst the diversity that exists during the social interaction process (Umami Khoiriah Hasibuan & Ichsan, 2025).

Interpreting information through the process of social interaction, experiencing an event can form a perception that influences a person's knowledge because perception is the final process of observation based on sensing.

Disability is a problem with bodily functions due to illness, growth abnormalities in the body, bodily injuries that cause limitations in a person so that they tend to be seen as weak and helpless even though the person has the potential to work like humans in general (Lestari, 2024). Deaf people are people who have lost their hearing ability but are still able to speak, which results in difficulty communicating and causes problems in social development (Carol & Susetyo, 2023), unable to respond to stimuli through the sense of hearing (Fahrizal Ananda Putra & Nova Estu Harsiwi, 2024). Deaf people also have problems with their ability to adapt, where they need to make a greater effort to be able to adapt to their surroundings (Listiyani et al., 2024). Social support from the closest family, relatives, friends is very much needed in the emotional, communication and material aspects, it has an important role as motivation to increase self-confidence which will become the foundation of self-acceptance for people with disabilities (Amilia Febrian Mufarrohah et al., 2024). This support requires an empathetic approach to understand and feel emotions when interacting with people with disabilities (BrNainggolan et al., 2025). The social approach is able to provide opportunities for people with disabilities to participate in society as a process of self-development and carrying out their social functions (Rahel Putriani et al., 2024). Social interaction is a component of education and community life that is able to demonstrate the mutual connection between individuals that is greatly needed by deaf people (Pramesti et al., 2025).

The need is because they also have the same potential and creativity as non-deaf people, so they need educational treatment that can produce challenges in terms of communication, understanding material and assessment (Endang Sulistianingsih & Nova Estu Harsiwi, 2025). However, limited attention has been given to examining changes in adolescents' attitudes toward deaf people following direct exposure to sign language learning activities. Therefore, this study aims to assess changes in adolescents' attitudes toward deaf people after a sign language workshop. Attitudes were measured before the workshop (pre-test) and after the workshop (post-test) using the adolescent attitude scale toward deaf people.

This article addresses four supporting research gaps: (1) Previous research highlights the importance of communication and sign language in interactions with deaf individuals but does not necessarily guarantee a consistently positive overall attitude; an individual might understand that sign language enables communication and be willing to learn it and assist deaf people, yet simultaneously feel awkward, uncomfortable, or fearful, or harbor doubts regarding the academic abilities or independence of deaf individuals. (2) Existing literature has not sufficiently explained how the three components of attitude—cognitive (beliefs about deaf individuals' abilities), affective (feelings during interaction), and conative (willingness to act)—change and interact following the experience of learning sign language, noting that these aspects do not always shift in unison. (3) There is a need to examine the relationship between sign language and changes in specific attitudinal components, rather than merely evaluating attitude shifts based on aggregate scores; this article presents a pre-test, sign language workshop, and post-test design, categorizing changes into low, medium, and high levels. (4) A discrepancy between attitude and actual interaction was observed during the workshop: while

students paid attention to demonstrations, attempted movements, asked questions, assisted one another, and volunteered, some still struggled to replicate movements and required repetition. Collectively, these supporting gaps point to a primary research gap: while previous studies demonstrate that communication and sign language play a crucial role in fostering inclusive interactions with deaf individuals, it remains unclear whether the experience of learning sign language consistently alters cognitive, affective, and conative attitudes, given the ambivalent nature of attitudes—whereby students may possess positive knowledge and intentions yet still exhibit discomfort, awkwardness, fear, or avoidance. Therefore, further research is required to evaluate attitudinal changes multidimensionally—both before and after the sign language learning experience—and to identify positive and negative patterns within each attitudinal component.

Methods

Perceptions and attitudes are personal and abstract and are used to determine the reasons for a person's attitude toward people with disabilities. The process of forming social interactions is dynamic, so this study employed a quantitative pre-experimental one-group pretest-posttest design, which assessed students at SMK Negeri 7 Pekanbaru.

A person's reasons must also be revealed, so the data collection process is not suitable using a questionnaire that only displays reasons for "agreeing" and "disagreeing." Revealing a reason is more appropriate for the interview process because it allows for insight into a person's pauses, intonation, and hesitation. Data collection was conducted through interviews with students of SMK Negeri 7 Pekanbaru.

The data collection method was conducted by providing written questions to students to measure attitudes toward deaf people. The instrument used was an attitude scale consisting of 20 statements divided into two categories: favorable and unfavorable. Respondents were asked to rate various statements reflecting cognitive, affective, and behavioral aspects. These statements covered adolescents' views on social interactions, their comfort level in communicating, and their willingness to interact and engage in activities with deaf people. This method enabled researchers to obtain structured data and provide an overview of adolescents' attitudinal tendencies toward deaf people.

Data collection was conducted twice, with the first being a pre-test to assess respondents' basic knowledge. Respondents were then given sign language training, which coincided with the International Sign Language Day commemoration at SMK Negeri 7 Pekanbaru. After the training, a post-test was conducted to assess the development of their perceptions. This sign language training was conducted during the International Sign Language Day Commemoration Workshop and is part of Pertamina Hulu Rokan's 2025 community development and improvement program. A pre-test was administered before the workshop to establish baseline attitudes. Participants then took part in the sign language workshop. A post-test was administered after the workshop to assess changes in attitudes.

The scale used is the summated ratings method with four alternative answers: very inappropriate (STS), inappropriate (TS), appropriate (S), and very appropriate (SS). The scale score ranges from one to four. Favorable items use a scoring scheme with a score of STS = 1, TS = 2, S = 3, and SS = 4. Meanwhile, for unfavorable items, scoring is done in reverse, with STS given a score of 4, TS a score of 3, S a score of 2, and SS a score of 1.

Tabel 1: Distribution of Scale Items

No.	Aspect	<i>Favorable</i>	<i>Unfavorable</i>	Total
1.	Kognitif	1, 3, 5	2, 4, 6	6
2.	Afectif	7, 9, 11	8, 10, 12	6
3.	Konatif/	13, 15, 17, 19	14, 16, 18, 20	8
Total		10	10	20

The validity test results for the adolescent attitudes scale toward deaf people showed that all 20 items tested on 116 respondents had corrected item-total correlations between 0.354 and 0.853. This value range is above the minimum threshold of 0.30, indicating that all items are valid. This means that each statement on this scale adequately measures adolescent attitudes toward deaf people. Meanwhile, the reliability test using Cronbach's alpha yielded an α value of 0.922, which is considered very high reliability. This value indicates that the instrument has strong internal consistency, resulting in stable responses.

The total mean score was 37.64 with a standard deviation (SD) of 9.00. This instrument uses a Likert scale of 1–4 for 20 items, resulting in theoretical scores ranging from 20 to 80.

Students' attitude levels were classified by dividing the total score into three levels: low, medium, and high:

Table 2: Standard Scores for Categorization

Category	Score Range
Low	$X \leq 28$
Middle	$29 \leq X \leq 46$
High	$X \geq 47$

The 20 statement items that the researcher used in the instrument consisted of: (1) Deaf people can communicate using sign language; (2) Deaf people cannot participate in learning activities in public schools; (3) Deaf teenagers are also able to achieve in academic and artistic fields; (4) Deaf people must always depend on other people; (5) Deaf people can work like other people if given the opportunity; (6) Deaf people are not able to interact with the wider community; (7) I feel happy if I am friends with deaf teenagers; (8) I feel awkward if I have to talk to deaf people; (9) I respect deaf people as I respect other friends; (10) I feel uncomfortable when sitting on the same bench with deaf friends; (11) I feel calm when interacting with deaf people; (12) I feel afraid if I am asked to communicate with deaf people; (13) I am willing to learn a little sign language to communicate with deaf people; (14) I do not want to participate in activities if there are deaf people in them; (15) I will help deaf people if I see they have difficulty understanding something; (16) I feel no need to help deaf people because they are different; (17) I want to invite deaf people to join a study or play group; (18) I am not interested in socializing with deaf people; (19) I want to participate in activities that involve deaf people; (20) I prefer to avoid interacting with deaf people.

Result and Discussion

Several students were seen paying attention to the facilitator as the speaker delivered instructions at the beginning of the activity. As the activity progressed, the speaker demonstrated simple sign language movements and encouraged participants to imitate them gradually, leading some students to begin following the instructions.

Throughout the activity, students actively observed the speaker's hand movements. Some students were seen turning to their peers to match the movements and occasionally asked brief questions regarding the accuracy of the hand movements. Furthermore, students in the front row appeared to imitate the movements more quickly than those in the back row.

The interaction between the speaker and students was demonstrated through nonverbal responses, such as nodding after instructions were given and light laughter when participants made mistakes and were then directed to repeat. Throughout the presentation, students appeared to pay attention to the speaker, who communicated using sign language with the assistance of interpreters, and no teasing or disruptive behavior was observed during the activity.

Several obstacles observed during the activity included students having difficulty following certain finger movements and the room occasionally becoming noisy due to brief conversations between participants. Despite this, the activity continued until the end of the session. The resource person concluded the session by asking several students to come forward to practice the sign language movements they had learned; several students volunteered to participate. Based on the pre-test interviews, the following assessment results were obtained:

Table 3: Respondents by Attitude Category

Category	Score Range	Respondent
High	> 47	12
Middle	29 – 46	100
Low	0 – 28	4
TOTAL RESPONDENT		116

Based on the assessment results using a scale of adolescent attitudes toward persons with disabilities, 116 respondents were divided into three categories: 4 respondents (3.4%) were in the low category, 100 respondents (86.2%) were in the moderate category, indicating that adolescent attitudes toward deaf people tend to be quite positive, but not yet very strong or consistent, and 12 respondents (10.3%) were in the high category. These results indicate that the majority of adolescents have moderate attitudes toward persons with disabilities, defined as attitudes that are already moving toward acceptance but still require further strengthening.

Based on the cognitive aspect, the scale results generally indicate that adolescents' attitudes are in the moderate category. This indicates that adolescents have basic knowledge and understanding of deaf people, but this understanding is not yet fully in-depth. Observational findings support these results, as adolescents appeared to pay attention to explanations from deaf speakers and companions and attempted to understand sign language, but there was still a need for clarification and repetition of movements. This condition indicates that adolescents'

understanding has developed, but is not yet fully established, reflecting a moderate attitude category.

The results of the affective aspect scale generally indicate a tendency toward moderate to high attitudes. A moderate category in this aspect indicates that adolescents have feelings of empathy and acceptance toward deaf people, but these feelings are still situational and influenced by the context of the activity. Observations revealed that adolescents demonstrated enthusiasm, warm emotional expressions, and a sense of enjoyment while participating in the Sign Language Workshop, although some participants appeared awkward at the beginning. This indicates that positive emotional responses have emerged but are still developing throughout the interaction process.

In terms of the conative aspect, or general behavioral tendencies, the scale results indicate that most adolescents fall into the moderate category. A moderate category in this aspect indicates that adolescents are ready to engage in positive behavior, but these behaviors have not yet become fully consistent habits. Observations support this finding, as adolescents appeared to actively participate in sign language practice, were willing to help friends, and did not exhibit avoidant or dismissive behavior. However, some of these positive behaviors still emerged in the context of structured activities, requiring continuity for these positive attitudes to develop further.

Overall, the results of the attitude scale, which were predominantly in the moderate category, indicate that adolescents' attitudes toward deaf people are in the developing stage. Based on these findings, although adolescents have demonstrated quite positive attitudes, strengthening efforts through education, direct interaction, and ongoing social experiences are still needed to elevate their attitudes to a higher, more inclusive level.

To determine the level of understanding in more detail, data analysis was conducted based on respondents' understanding of the statements provided, as shown in the table below.

Table 4: Cognitive Aspects

Aspect	STS	TS	S	SS	Description
Favorable					
A1	0	6	68	42	The findings indicate a high level of cognitive acceptance among students regarding the use of sign language as a means of communication by deaf people.
A3	2	54	57	3	The findings suggest that students' cognitive attitudes toward the academic abilities of deaf adolescents remained ambivalent, despite a weak tendency toward positive perceptions.
A5	1	15	68	32	The findings suggest that students generally recognized the employment potential of deaf individuals and viewed access to appropriate opportunities as an important factor influencing their ability to work.
Unfavorable					
A2R	3	6	57	3	The relatively negative cognitive responses regarding the participation of deaf individuals in mainstream education

					indicate that students' attitudes may still be influenced by stereotypical perceptions and an incomplete understanding of inclusive education.
A4R	6	2	56	52	The findings suggest that students' negative cognitive attitudes toward the independence of deaf individuals were influenced by persistent dependency stereotypes, including a tendency to generalize perceived limitations to deaf individuals as a group.
A6R	0	16	73	27	Students' responses indicated a relatively negative cognitive attitude toward the social interaction abilities of deaf individuals, particularly regarding perceived communication difficulties and their ability to engage in social interactions.

Table 5: Affective Aspects

Aspect	STS	TS	S	SS	Description
Favorable					
A7	4	25	68	19	The findings indicate that positive affective attitudes toward deaf adolescents were predominant, particularly in students' willingness to develop friendships, while a small proportion of students continued to experience emotional discomfort.
A9	2	54	55	5	The findings suggest that students generally expressed positive feelings toward deaf individuals, but their affective responses were not entirely consistent with viewing deaf peers as equal participants in social interactions. This may reflect the persistence of emotional barriers to fully inclusive peer relationships.
A11	1	13	41	61	The findings suggest that students generally experienced positive affective responses during interactions with deaf individuals, as indicated by feelings of comfort and calmness. This pattern may reflect relatively low intergroup anxiety and a greater degree of emotional comfort in social interactions with deaf peers.
Unfavorable					
A8R	2	7	99	8	The findings suggest that students experienced relatively high levels of affective discomfort, particularly feelings of awkwardness when interacting with deaf individuals. These responses may reflect elements of intergroup anxiety that could hinder comfortable and confident social interaction.
A10R	0	9	26	81	Students demonstrated relatively negative affective responses to close physical interactions with deaf individuals, particularly through heightened feelings of discomfort. These responses suggest that emotional barriers may persist even when students express generally positive attitudes toward deaf individuals.

A12R	3	31	77	5	Taken together, the affective responses suggest that although students may be willing to interact with deaf individuals, anxiety, fear, and communication-related uncertainty remain potential emotional barriers to comfortable and confident interaction..
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Table 6. Conative Aspects

Aspect	STS	TS	S	SS	Description
Favorable					
A13	1	21	82	12	Students' responses indicated a moderately positive conative attitude toward learning sign language as a means of communicating with deaf individuals, suggesting an emerging willingness to develop more inclusive communication practices.
A15	4	10	40	62	The findings suggest that students showed a strong willingness to provide assistance to deaf individuals in difficult situations, reflecting positive conative attitudes and a readiness to engage in supportive social behavior.
A17	2	10	39	65	Students' responses indicated a strong willingness to invite deaf individuals to participate in group activities, reflecting a positive tendency toward inclusive social participation.
A19	1	14	61	40	Students' responses indicated a strong willingness to participate in activities involving deaf individuals, suggesting a positive conative orientation toward inclusive social participation.
Unfavorable					
A14R	4	11	30	71	Demonstrates a strong and relatively internalized negative conative tendency, characterized by an intention to avoid involvement in activities involving deaf individuals. Reflects exclusionary behavior influenced by discomfort and social bias.
A16R	3	9	49	55	Demonstrates a strong negative conative tendency, characterized by a low intention to help deaf individuals based on perceived differences. Reflects social bias and a tendency toward discriminatory behavior that is quite internalized.
A18R	3	22	70	21	Demonstrates a fairly dominant negative conative tendency, characterized by a low interest in associating with deaf individuals. Reflects a relatively strong tendency toward social avoidance and interpersonal distance, although this is not yet fully widespread.
A20R	5	14	87	10	Demonstrates a dominant negative conative tendency, characterized by a preference to avoid interactions with deaf individuals. Reflects an exclusive behavioral pattern influenced by social anxiety and discomfort, although this has not yet been fully internalized.

Post-test results indicated an increase in adolescents' attitude scores across the cognitive, affective, and conative dimensions, with 113 of 116 participants classified in the high attitude category. The study focused on changes in adolescents' attitudes toward deaf people before and after participation in the sign language workshop:

Table 7: Changes in Adolescents' Attitude Levels Before and After the Workshop

Category	Pre – Test	Pro – Test
High	12	113
Middle	100	3
Low	4	0
Total Respondents	116	116

Based on the references found, an article was found that conducted similar research. Aileen Carol et al. conducted a qualitative study to help parents of deaf children design activities to improve their deaf children's communication skills. This research used descriptive qualitative methods to obtain results regarding parents' understanding of communication with deaf children. Therefore, parents must learn more about deaf children and get used to speaking all the sounds and activities around them.

Pramesti et al. conducted qualitative research on special needs teachers (SLB) to implement character education for deaf students. The research aimed to determine the teachers' interpersonal communication with deaf and mute students. The study used qualitative methods and results showed that teachers used an open approach, empathy, positive attitudes and support, and equality toward students.

Endang Sulistianingsih et al. conducted research on teachers' perceptions of the challenges of teaching deaf students. The research used descriptive qualitative methods, resulting in knowledge that teachers struggled to ensure students understood instructions, had limited communication skills, and lacked pedagogical competency for special education. However, these challenges were overcome by using adaptive strategies through visual aids and emotional support, resulting in effective learning.

Sign language and communication are essential for inclusive interaction. Positive knowledge or behavioral intentions can coexist with emotional discomfort and stereotypes. This article is based on a process comprising a pre-test, a sign language workshop, a post-test, analysis (cognitive, affective, and conative), and observation, aiming to gain a deeper and more nuanced understanding of changes in attitudes toward deaf individuals.

The research conducted by the researcher focused on public schools, thus presenting the challenge of understanding the perceptions and social attitudes of non-disabled deaf students, and then forming positive social perceptions and attitudes to support the development process of deaf students in school life. The researcher conducted a pre-test to determine the basic perceptions and social attitudes held by non-disabled students, then provided sign language training aimed at developing positive mindsets and empathy and then re-evaluated the development of non-disabled students' perceptions and attitudes towards deaf students.

Conclusion

The findings indicate that adolescents' attitudes toward deaf people improved following participation in the sign language workshop. The improvement was observed across the cognitive, affective, and conative dimensions. The implementation of structured and sustainable interventions is expected to support the strengthening of inclusive attitudes among adolescents and create a social environment that is friendly to deaf people. Several recommendations are proposed, namely:

1. Inclusive attitudes among adolescents need to be continuously strengthened through education and direct interaction experiences with deaf people.
2. This intervention design can be implemented in other schools in a structured manner as an effort to build an inclusive educational environment.
3. Further assessment is needed to determine the effectiveness of the intervention and the ongoing development of adolescents' attitudes.

For further research, the researcher recommends conducting research on learning sign language using digital media for students without disabilities to determine its effectiveness and analyze social interactions between students without disabilities and deaf students.

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