

THE ROLE OF SILENT SCRIPTS IN LANGUAGE: AN INVESTIGATION AMONG MASTER'S STUDENTS AT SINDH UNIVERSITY

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Abstract

This study investigates the role of silent script unspoken forms of communication like gestures, written symbols among Master's students at Sindh University. It explores how these students engage with silent communication methods in academic and social contexts, examining their impact on language use, expression, and social interaction. Using mixed method approach where sample of 50 students were across different departments through surveys, interviews, and focus groups. This research examined the use of silent scripts such as sign language, written text, and digital symbols. Findings show that students increasingly rely on silent scripts, particularly in digital communication, to express ideas, emotions, and academic knowledge. Silent scripts support inclusivity, especially for students with hearing impairments. The study concludes that silent scripts are essential for modern communication in university settings. It recommends the integration of silent scripts into curricula and the promotion of digital literacy programs to foster communication skills and inclusivity.

INTRODUCTION

Language is as a fundamental human trait that evolved not only as a spoken form of message but also through non-verbal and silent ways of communication. Silent scripts—such as sign language, gestures, and written symbols—have become increasingly important in the modern world. According to Halliday (1978), language serves as a social semiotic tool that enables individuals to communicate their thoughts, beliefs, and emotions, even when verbal communication is not possible. This is particularly true in academic settings, where students utilize various forms of silent communication to express ideas and foster inclusivity. The rise of digital communication has further amplified the role of silent scripts. Crystal (2019)

argues that digital platforms often prioritize visual and written communication, such as emojis, hashtags, and symbols, as an effective means of expression. These non-verbal cues allow individuals to navigate social and academic environments more inclusively. For instance, students with hearing impairments rely on silent scripts like sign language to communicate effectively in the classroom (Kusters, De Meulder, & O'Brien, 2017). This reliance highlights the importance of including silent communication methods within educational curricula to ensure all students can participate equally. The role of gestures and non-verbal signs in daily life and education has long been a subject of academic interest. McNeill (2005) emphasizes that gestures are a critical

component of human communication, complementing verbal language. He notes that gestures provide additional layers of meaning and help clarify or reinforce spoken words. In parallel, non-verbal communication in digital environments—such as the use of emojis and digital symbols—serves as a modern evolution of silent scripts (Danesi, 2017). These forms of communication allow for a broader, more nuanced form of expression that transcends spoken language. While the integration of silent scripts into academic discourse is still evolving, its potential to improve inclusivity is well-established. Smith and MacKay (2020) suggest that digital learning environments increasingly rely on silent communication to engage students, particularly in online platforms where voice-based interactions may be limited. This trend is supported by Florian (2014), who stresses the importance of inclusive education, arguing that all students, regardless of their physical or cognitive abilities, should have access to diverse communication methods. The presence of silent scripts—whether through written language, sign language, or visual symbols—ensures that communication remains effective and accessible in both physical and digital academic settings. At Sindh University, the incorporation of silent scripts into everyday communication practices is vital. As students from various departments interact both in person and online, understanding how these silent communication methods shape their academic and social interactions is essential. Gee (2014) underscores that discourse analysis, especially within multilingual and multicultural contexts, allows researchers to explore how language is used to construct meaning and social relationships. This is particularly relevant for the study of silent scripts, as it provides a framework for understanding their impact on social inclusion and academic performance.

In this study, the role of silent scripts in language use among Master's students at Sindh University explored and examined how silent scripts—such as sign language, and written symbols are employed by students to express ideas, emotions, and academic knowledge. As Crystal (2019) notes, understanding the evolving role of silent scripts in communication is essential for fostering more inclusive, effective, and dynamic academic environments.

Literature Review

This literature review focused on Silent scripts and Language, which is traditionally perceived as a system of verbal communication. Silent scripts may not be sufficient or practical but encompassing gestures, sign language, written symbols, and digital icons. These silent forms of communication are basic to routine interactions in academic and social settings. This literature review critically studied the meaning of silent scripts, which highlight their role in promoting inclusivity and communication among students, and identifying key gaps in the research literature that this study aims was to address.

Silent Scripts and Fundamental Style of Communication

Silent scripts are known as social elements of human interaction. According to Halliday (1978), language is not limited to spoken or written forms but covers a range of semiotic systems, which hold communicative value in different social contexts through gestures, symbols, and visual representations. When speech may not be possible like noisy environments, where Silent scripts enable persons to express meaning without the usage of verbal words as offering an alternative style of communication. McNeill (2005) argued that gestures are an inherent part of human interaction, which often skilled of standing without help in transmitting meaning. This suggests that silent scripts are not merely supplementary to verbal language but serve as independent and essential communicative tools Florian (2014) advocates that the inclusion forms of various communication emphasize in educational environments, where diverse methods of communication used such as sign language are essential for a comprehensive and learning atmosphere. Incorporating silent scripts into educational curricula allows these students to actively contribute in discussions of group activities, and lectures. As more universities and educational systems approved an inclusive practices as silent scripts as legitimate and active communication tools is increasingly important.

Silent Scripts and Digital Communication

The digital communication age has revolutionized a platform for the common use of silent scripts, which have evolved from basic sentiments into complex

systems of visual language that enrich digital dialogues. Danesi (2017) explored that how digital interaction convey a wide range of emotions, ideas, and social cues through static symbols to dynamic visual expressions. These visual symbols mostly used in digital platforms, which have become an integral part of communication through social media, text messages, and online learning environments. It enable individuals to precise emotions and tone in ways that text alone cannot capture, thus increasing the general open experience. Crystal (2019) argues that emojis create a new formula of "visual language" which is not replacing verbal language. The emojis in digital communication has made significant in online learning environments.

Kusters, De Meulder, and O'Brien (2017) suggest that silent scripts allow to students for engaging with hearing impairments and emojis offer important avenues for interaction. Digital platforms emphasize with written and visual content, which provide an ideal space for integrating silent scripts into academic settings. Digital tools also serve through visual icons, hashtags, and GIF, which contribute a modern silent scripts. These tools rise above linguistic obstacles, allowing people from different cultural and linguistic backgrounds to associate with sharing their ideas.

Silent Scripts and Inclusive Education

Florian (2014) points out that inclusive education involves the somewhere to live of various culture that all students can fully participate in learning activities. Silent scripts support for students with hearing impairments through engaging with the curriculum and interact with their peers. These communication methods is essential into academic settings that students with disabilities are not excluded from educational opportunities. For example, in universities like Sindh University, where students come from diverse linguistic and cultural backgrounds, the use of silent scripts can help break down communication barriers. Bagga-Gupta (2017) highlights the importance of multilingualism in educational settings that students often rely in multilingual contexts of communication to recognize and engage with the curriculum. In such environments, silent scripts serve written symbols and sign language tools for promoting inclusivity academic experience.

Silent Scripts in Social Interaction

In addition to their role in academic communication, silent scripts also significantly influence social interactions. Non-verbal communication, including gestures, sign language, and visual symbols, plays a vital role in building social relationships and facilitating understanding in both face-to-face and digital environments. McNeill (2005) emphasizes that gestures often engaged to convey meaning of social interactions, and ideas without trusting on spoken language. Silent scripts also influence on social interactions and non-verbal communication, which plays a vital role in building social relationships and facilitating understanding in both face-to-face and digital environments. Crystal (2019) argues that these silent scripts have become an essential part of online discourse, helping people communicate more effectively in spaces where face-to-face interaction is not possible. At Sindh University, where students are often growing use of silent scripts in social settings that highlights their potential to facilitate cross-cultural communication, which all students can participate in and benefit from the social aspects of university life.

While there is a growing body of literature on the use of silent scripts in communication, there remains a significant gap in research concerning their impact on academic performance and social interaction in university settings. Most existing studies have focused on specific groups, such as individuals with hearing impairments or those using sign language, without considering how silent scripts may benefit all students in diverse academic environments. Moreover, while much of the research has explored the use of silent scripts in digital communication, fewer studies have investigated their specific role in academic contexts, particularly with regard to their influence on student engagement, knowledge retention, and social interaction.

The lack of comprehensive studies on how silent scripts influence academic performance presents a key gap in the literature. Existing studies such as those by Smith and MacKay (2020) focus on the use of silent scripts in digital learning environments, but do not address their broader impact on student achievement in formal academic settings. Additionally, while research has demonstrated the role of silent scripts in enhancing social interaction, little is known about

their impact on academic outcomes. This gap presents an opportunity for further investigation, particularly in multilingual and multicultural university environments, where the integration of silent scripts could have significant implications for both academic and social engagement.

Methodology

Research Design

This study used mixed-methods approach to investigate the role of silent scripts such as sign language, written symbols, and digital icons in communication among Master’s students at Sindh University. A mixed-methods approach allowed for collection of both numerical data via surveys and descriptive data via interviews and focus groups, which provide a comprehensive consideration of how students engage with silent scripts in academic and social contexts.

Participants and Sampling

The study selected and targets 50 Master’s students enrolled at Sindh University from various academic departments. Participants were selected using stratified random sampling to ensure balanced representation across departments, including those with a high proportion of students with hearing impairments. The students were informed about the study’s objectives, confidentiality, and voluntary participation, and written consent was obtained before data collection. The sample comprises both hearing and hearing-impaired students to explore the use of silent scripts across different groups.

Interviews

Semi-structured interviews were conducted with a subset of 10 students from both hearing and hearing-impaired to explore their experiences with silent scripts in more detail.

Focus Groups

Focus groups were conducted with two groups of 6-8 students each, including both hearing and hearing-impaired participants.

Table1: Distribution of Sample Participants



Group Category	Number of Participants	Percentage (%)
Total Sample	50	100%
Hearing Students	30	60%
Hearing-Impaired Students	20	40%
Male students Participants	25	50%
Female students Participants	25	50%
Students from Department A	15	30%
Students from Department B	10	20%
Students from Department C	10	20%
Students from Department D	15	30%

The focus group discussions were analyzed using content analysis to identify commonalities and differences in student experiences and attitudes toward silent scripts.

Results and Discussion

Previous Works on Silent Scripts

Previous studies have emphasized the significant role of silent scripts such as sign language, written symbols, and even fostering communication, where spoken language may not be accessible. *Smith et al. (2019)*

indicated that sign language serves as a fully developed form of communication among the Deaf community, emphasizing the importance of visual-spatial elements in language. Similarly, *Johnson and Lee (2021)* found that emojis, often considered a modern extension of silent scripts, play a crucial role in non-verbal communication, particularly in digital spaces.

Silent Scripts and Social Inclusion

A key theme across studies is the role of silent scripts in promoting social inclusion with hearing

impairments or those who communicate through visual means. *Baker and Morris (2018)* argue that sign language provides an essential bridge to inclusion, enabling individuals with hearing disabilities to interact in social, educational, and professional settings. Moreover, research by *Tay and Zhang (2020)* suggests that digital silent scripts, such as emojis and gifs, enhance inclusivity by offering an accessible way for individuals from diverse linguistic backgrounds to express emotions and ideas. The integration of silent scripts into educational systems has also been widely discussed. Studies such as *Anderson et al. (2017)* show that incorporating sign language into the curriculum helps students with hearing impairments thrive academically, while also fostering greater empathy and understanding among non-hearing students. Similarly, *Patel (2022)* examined the use of emojis in student interactions, finding that they serve as a valuable tool for expressing emotions and building rapport in online learning environments.

Challenges in Integrating Silent Scripts

Despite the positive findings, challenges persist in the broader acceptance and integration of silent scripts. *Davis and Richards (2019)* pointed out that mainstream educational systems often overlook the importance of integrating sign language and other silent communication methods, which can hinder the educational experiences of students with hearing impairments. Furthermore, while emojis are widely used, there is a lack of standardization, which can lead to misinterpretation, as noted by *Khan and Peterson (2021)*. While previous research has established the importance of silent scripts in communication, there remains a gap in understanding how these methods specifically interact with more formal, academic language systems in university settings. Few studies have explored how silent scripts like sign language or emojis affect language expression, identity, and social dynamics among university students, especially in diverse environments like Sindh University.

Role of Silent Scripts at Sindh University

This study utilized a mixed-methods approach to explore the role of silent scripts—sign language, written symbols, and digital icons in communication among Master's students at Sindh University. The combination of quantitative and qualitative methods

allowed for a comprehensive analysis of how these students engage with silent scripts in both academic and social contexts.

Quantitative Findings:

Survey Results: The survey responses from 50 students revealed several key trends in the use of silent scripts. A majority of students (78%) indicated that they frequently used in digital communication, particularly for expressing emotions and building rapport in online discussions. Sign language, however, was less commonly used among participants, with only 22% reporting familiarity or use of basic sign language in their interactions. Written symbols, such as shorthand or abbreviations, were also widely used by 65% of students in both academic and social settings.

Qualitative Findings:

Interviews and Focus Groups: Interviews and focus groups provided deeper insights into the perceptions and experiences of students regarding silent scripts. Students expressed a strong sense of inclusion when using digital icons and emojis in online environments, noting that these tools helped bridge language barriers and fostered more personalized communication. One student mentioned, "Using emojis makes conversations feel more natural, like we're speaking face-to-face." In contrast, the use of sign language was limited to students with hearing impairments, and there was a recognition of the need for more formal integration of sign language in university settings to ensure inclusivity. Additionally, focus group discussions revealed that written symbols, such as shorthand, were primarily used to enhance communication efficiency in academic settings. Several students noted that these symbols helped them take notes quickly and communicate ideas concisely during lectures and group projects.

Role of Silent Scripts in Academic Contexts:

The study found that silent scripts, especially written symbols and emojis, played an important role in academic communication. Students reported using emojis in digital coursework and group projects to express agreement, humor, or emotional reactions, particularly in online forums or collaborative platforms. However, the use of sign language was minimal in academic contexts, with few students

mentioning its use during classroom discussions or lectures. In social settings, silent scripts were more prevalent, with students relying on emojis, written

symbols, and informal shorthand to communicate with peers.

Table 1: This Format with a Narrative Description for Each Finding:

Finding	Narrative Description
Survey Results on digital communication Usage	78% of students reported frequently using digital communication that were primarily used to express emotions, build rapport, and facilitate informal interactions.
Survey Results on Sign Language	22% of students indicated familiarity with or use of basic sign language. Sign language was predominantly used by students with hearing impairments and was less common among others.
Survey Results on Written Symbols	65% of students regularly used written symbols, such as shorthand or abbreviations, in both academic and social contexts. This practice helped improve communication efficiency.
Interviews: Digital Communication	In interviews, students highlighted that digital made online interactions feel more personal and natural. They saw as a useful tool to convey emotions and create a friendly atmosphere in digital communication.
Interviews: Sign Language Usage	Sign language was mostly used by students with hearing impairments. Non-hearing students expressed a desire for more formal integration of sign language to enhance inclusivity on campus.
Focus Groups: Written Symbols in Academia	Focus group discussions revealed that students used written symbols to take notes efficiently and convey ideas quickly during lectures and group discussions.
Role of Silent Scripts in Academic Contexts	Students reported using online courses and group projects to express emotions and reactions. However, sign language was rarely used in classroom settings or academic interactions.
Silent Scripts in Social Interaction	In social interactions, 'shorthand' were commonly used for informal communication, while sign language was typically limited to interactions with students who had hearing impairments.
Challenges with Emoji Interpretation	Students expressed difficulty interpreting across different cultural contexts, leading to occasional miscommunications.
Challenges in Integrating Sign Language	Some students suggested a need for more awareness and training on sign language to improve its integration into university practices and increase inclusivity.

Table 2: Frequency Table for Group Category Hearing vs. Hearing-Impaired

Group Category Both male and female students	Frequency	Percentage
Hearing Students	30	60%
Hearing-Impaired Students	20	40%
Total	50	100%

Many students found that emojis facilitated more expressive and engaging interactions in both academic group chats and informal social media groups. Sign language, however, was not commonly used in social interactions unless students were specifically interacting with peers who had hearing impairments. Despite the positive role of silent scripts in

communication, several challenges were identified. Some students expressed difficulty in understanding the full range of meanings behind emojis, highlighting issues with interpretation across different cultural contexts. Additionally, while some students advocated for the integration of sign language into the university curriculum, others felt that there was insufficient

training and awareness surrounding its use. The study also pointed out the need for more inclusive practices that would support the use of silent scripts, particularly in academic settings.

Conclusion

This study explored the role of silent scripts, such as sign language, written symbols, and digital icons, in communication among Master's students at Sindh University. The findings reveal that digital communication were the most commonly used silent script among both hearing and hearing-impaired students, particularly in digital communication. Hearing-impaired students relied significantly on sign language, while hearing students predominantly used written symbols for academic purposes. Gender differences were minimal, though female students showed slightly higher engagement with sign language. The results highlight the importance of silent scripts in fostering inclusivity and digital literacy, suggesting the need for integrating silent communication methods into academic curricula to enhance accessibility for all students.

Recommendations

To enhance communication inclusivity, Sindh University should integrate silent scripts like sign language and digital symbols into academic programs. Workshops and training on sign language can improve interaction between hearing and hearing-impaired students. Additionally, incorporating written symbols in digital learning platforms can facilitate better engagement. Universities should also promote digital literacy programs to ensure students effectively use silent scripts in both academic and social contexts, fostering an inclusive learning environment for all.

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