

## Identifying the Social Communication Deficits among Students with Learning Disabilities in Primary School

Nurul Shahida Nordin, Norfishah Mat Rabi

Faculty of Human Development, Universiti Pendidikan Sultan Idris (UPSI)

Email: norfishah@fpm.upsi.edu.my

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### Abstract

Social communication is one of the 21<sup>st</sup> century skills that is essential to be used in social interaction. Students with learning disabilities are known to have difficulties in social communication which cause their needs and wants unachieved and being misunderstood by their parents, educators and society. This study aims to analyze social communication difficulties among students with learning disabilities based on four essential aspects which are verbal communication, non-verbal communication, speech and social interaction. The study was conducted in one primary school in Perak, Malaysia. Method of data collection uses an observation checklist and focus group interview. Eight (8) students with learning disabilities who are also categorized as slow learners were chosen as participants using purposive sampling method. The result showed that participants had deficits in social interaction (97%), speech (67.50%), non-verbal communication (56.25), and verbal communication (50%). Teachers should have an initiative to identify student's social communication deficit before preparing the lesson to be taught. In conclusion, social communication deficit in students with learning disabilities will influence learning performance and teaching session.

**Keywords:** Social Communication Deficits, Social Interaction, Speech, Student with Learning Disabilities, Verbal and Non-Verbal Communication.

### Introduction

Social communication is one of the 21<sup>st</sup> century skills that is essential to be used in social interaction. Students with learning disabilities are known to have difficulties in social communication which causing their needs and wants unachieved and being misunderstood by their parents, educators and society. Social communication skill is a measure of the ability of an individual to communicate with individuals around them (Özen, 2015). Failure to practice social communication skills may cause students to face various negative effects. This includes difficulty in making friends and lose interest in coming to school (Killen, Rutland & Jampol, 2009), thus jeopardizing the teaching and learning process.

Students with social communication deficits struggle with verbal and nonverbal communication, which may limit their ability to understand and produce academic content through discussion and written forms. Besides that, students with this disorder also may not be able to positively interact with teachers and peers due to their lack of pragmatics, which is a key component in social communicative skills. Therefore, teachers need to be aware of the nature of social communication disorder, including on how it affects the students and which strategies work best with students who have the disorder in order to fully support them academically, behaviourally and socially-emotionally in the school setting. This study will be discussing the deficits in social communication among the student with learning disabilities by categorized into four essential aspects in and leads to social communication skills. These consists of verbal communication, non-verbal communication, speech and interaction social.

### Literature Review

Social communication for individuals with learning disabilities is essential for successful integration into society, the development and maintenance of meaningful friendships, and long-terms positive outcome. Social communication is an important sign in friendship and allows someone to live a life well (Owens, Granader, Humphrey & Baron-Cohen, 2008). Social communication is created when one can connect and understand the communication of the signal that is presented by someone in the appropriate social context. According to American Psychiatric Association (APA, 2013), the new diagnosis of social communication disorder (SCD) in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) recognize persons who have significant problems using verbal and non-verbal communication for social purposes, leading to impairments in their ability to effectively communicate, participate socially, maintain social relationships, or otherwise perform academically or occupationally. SCD is characterized by a persistent difficulty of verbal and non-verbal communication that cannot be explained by low cognitive ability. The symptoms include difficulty in the acquisition and use of spoken and writing language as well as problems with inappropriate responses in conversation. The symptoms must be present in early childhood even if they are not recognized until later when speech, language, or communication demands exceed abilities (APA, 2013 & Topal, Samurcu, Taskiran, Tufan & Semerci, 2018). Thus, the deficits in social communication may negatively impact all aspects of an individual.

According to Olswang, Coggins, and Timler (2001), social communication refers to the ability to use language in appropriate ways to influence people and interpret events. It also can be referred as the synergistic emergence of social interaction, social cognition, pragmatics (verbal and non-verbal) and receptive and expressive language processing (Adams, 2005). In the other side on imaging studies in human, according to Catani and Bambini (2014), they proposed a five-level anatomical model for social communication that consists of the superior longitudinal fasciculus III (SLF III) for informative actions (level 1), the frontal aslant tracts (FAT) for communicative intentions (level 2), the uncinate fasciculus (UF), inferior longitudinal fasciculus (ILF) and inferior frontal-occipital fasciculus (IFOF) for lexical and semantic processing (level 3), the arcuate fasciculus (AF) for syntactic analysis (level 4), and the temporal-parietal tracts (TPT) for pragmatic integration (level 5; Catani & Bambini, 2014 & Lo, Chen, Hsu, Tseng & Gau, 2017).

Ten years back, Social Welfare Departments (SWD) in Malaysia reported that 38.7% of registered persons with disabilities in the country are those having 'learning disabilities' (Aminah, Salimah, Lai & Zakaria, 2009). Based on the Statistical Data from the Social Welfare

Department, the registered Person with Disabilities (PWD) at the Social Welfare Department, Malaysia in 2017 were 34.8% (Social Welfare Department, 2018). Even the numbers were different in the percentage over population but the significant number reported by SWD with learning disability raised concern on their development education in Malaysia. According to DSM-IV-TR guidelines, the diagnosis of learning disorders/disabilities are established when the person's reading achievement, mathematical ability and/or writing skills, is substantially below the expected "grade" as measured by individually administered standardized tests, given the person's chronological age, measured intelligence, and age appropriate education (First & Tasman, 2004).

As stated in the Social Welfare Department (SWD), the Ministry of Women, Family, and Community Development has established seven categories of disability for registration purposes. These categories are hearing, vision, speech, physical, 'learning disabilities'; mental or multiple disability. However, the SWD has its own operational definition of Learning Disabilities. It is referring to those with intellectual ability (mental age) and also demonstrated profound difficulties in performing their daily livings. The condition included under this category are global developmental delay, Down Syndrome, attention-deficit hyperactivity disorder (ADHD), autism, intellectual disability, slow learner and Specific Learning Disability (SLD). The Ministry of Education refer the term SLD to students who are unable to learn in the mainstream education classroom setting. They were resulted as low performing in regards to their reading, writing and arithmetic skills. Their learning difficulties could be due to the intellectual dysfunction, neurological syndromes and/or neurological processing problems.

They suggested that deficits in social communication can lead to behaviour that is antisocial and disruptive. A failure to understand social rules could lead to behaviour being interpreted, within the context of a school, as purposely rule-breaking (Barnard, Prior & Potter, 2000) and gesture in social contexts (Russell, 2007). Children who could speak in well-articulated sentences but lacked pragmatic language (social communication) skills were sometimes labelled as defiant in the way they answered teachers' rhetorical questions (Topal, Samurcu, Taskiran, Tufan, & Semerci, 2018 & Donno, Parker, Gilmour & Skuse, 2010). They found that the domains of social communicative impairment we identified were in terms of reciprocal social interaction skills plus verbal and non-verbal communication.

The majority of those children reported more typically listed among the core symptoms of ASDs (Topal, Samurcu, Taskiran, Tufan, & Semerci, 2018; Botting & Conti-Ramsden, 1999). Similarly, researchers have reported that children with attention-deficit hyperactivity disorders (ADHD), learning disorders (LDs), and even those with obsessive compulsive disorder (OCD) also have problems in social communication and pragmatics (Samuels, Shugart, Wang, Grados, Bienvenu, Pinto et al., 2014; Marton, Wiener, Rogers, Moore & Tannock, 2009; Bauminger, Schorr Edelsztejn, & Morash, 2005). The lack of social communication skills causes them being alienated in the classroom. According to Rabi (2016), children with learning disabilities are mostly having language problems. Hence, it affects the process of communication and interaction which may in turn affects their behavior that often creates difficulties for others to communicate with them. This is supported by Ghani, Aznan Ahmad and Isa (2014) who suggested that children with learning disabilities usually show weakness in terms of speech and communication.

Previous studies revealed that the students with autism spectrum disorder (ASD) are minimally verbal (Tager-Flusberg & Kasari, 2013), and are ones who acquired speech skills especially at their early age (Pickett, Pullara, O'Grady & Gordon, 2009). Thus, the targeted language intervention is needed for student with autism who are minimally verbal (Kasar, Kaiser, Goods, Nietfeld, Mathy, Landa, & Almirall, 2014; Paul, Campbell, Gilbert, & Tsiouri, 2013) or the student with learning disability who met the DSM-5 for social communication deficits that has a limited in verbal communication.

Although social communication impairments manifest in all individuals with Asperger Spectrum Disorder (ASD), varied degrees of symptom severity exist across the autistic spectrum (Jarvinen-Pasley, Peppe, King-Smith & Heaton, 2008). To date, the behaviours of social communication deficits have been extensively studied (Bodner, Williams, Engelhardt & Minschew, 2014; Caronna, Milunsky, & Tager-Flusberg, 2008). However, ones concentrating on the study of social communication deficits among the student with learning disability in any category are limited as mentioned of Social Welfare Department (Social Welfare Department, 2010). All paragraphs must be indented. All paragraphs must be justified; the entire document should be in Calibri Headings Calibri 14, bold, space before-6, after 12, text Calibri 12

## **Methodology**

This is a case study method that was selected because it is a type of empirical study based on systematic scientific procedures to investigate the current phenomenon in the context of real life (Yin, 2014). The design used in this study was highlighted to explain the problems experienced by student with learning disability in details toward social communication deficits in the classroom.

The observation checklist and interview was used as a method instrument in this study. The observation checklist, The Social Communication Deficits Checklist was designed by the researcher with adapted to Rabi & Piragasam (2018) will be conducted on student with learning disability (LD) in Special Education Integrated Programme (SEIP) school in Perak. The interview session was held with class teacher nearby.

The observation checklist and interview was used as a method instrument in this study. The observation checklist, The Social Communication Deficits Checklist was designed by the researcher with adapted to Rabi & Piragasam (2018) will be conducted on student with learning disability (LD) in Special Education Integrated Programme (SEIP) school in Perak. The interview session was held with the class teacher in choosing the participant and was in line with the study needs that was selected from among the students with learning disability (LD) based on the criteria set by the researcher in order to examine the social communication deficits of student with learning disability (LD).

In this study, a purposive sampling was used in selecting student with learning disability as a sample. The selected sample has a certain criteria set by the researcher and may represent the population to be studied or has the necessary information about the population to be studied (Creswell, 2013). The sample was chosen purposely because of the limited number of student with learning disability as well as preventing the disruption of the school administration at the location studied.

The participants were selected based on the criteria set by the researcher. The criteria set of participants among the student with learning disability in this study are as follows: (i) students who has been certified by a medical practitioner to have learning disability; (ii) students aged between 7 to 13 years; (iii) students who have problems in terms of social communication skills; (iv) students who have a good record of attendance to school; (v) students who have get oral and written approval from the school; (vi) students who have get written permission from parent/guardian; (vii) student who have no plans to leave the study site during the period of research studied. Eight students with learning disability were recruited in this study.

The Social Communication Skills Checklist was designed by the researcher with categorized into four essential aspects in social communication skills that is verbal communication, non-verbal communication, speech and social interaction. The observation checklist consists of 40 items. A high score indicates low in behaviour of social communication skills.

As a procedure of this current study, the social communication skills checklist was used to identify any deficit of participants using the checklists during teaching and learning session. The observation checklist was ticked by the teacher who taught the participants based on the observation on how the participant involved themselves in the classroom. The observation taken for a week. The data collection is analyzed using frequency and percentage. The lowest items scored is the most deficits the participants are toward four aspects in social communication skills.

## Results

All the items of four aspects in social communication skills scored of the participants were descriptive measured in frequency (f) and percentage (%). The results consist of verbal communication (VC), non-verbal communication (NVC), speech (S) and social interaction (SI) were reported in table below as follows:

**Table 1. Data analysis for verbal communication (VC)**

Code	Verbal communication (VC) items	Frequency (f)	Percentage (%)
VC1	Give opinion about something (like/dislike)	4	50.00%

VC2	Ask question	5	63.00%
VC3	Give idea to show interest in lesson	7	88.00%
VC4	Initiate conversation on topic learnt	6	75.00%
VC5	Maintaining conversation on topic learnt	4	50.00%
VC6	End up conversation discussion	4	50.00%
VC7	Give comment in discussion	1	13.00%
VC8	Predicts on something in topic learnt	0	0.00%
VC9	Give instruction	5	63.00%
VC10	Answer question spontaneously on topic learnt	4	50.00%
Total		50.00%	

Table 1 shows the results relating to verbal communication items. The data shows that the lowest score of verbal communication (VC) was 'Predicts on something in topic learnt' (VC8) with zero frequency and percentage. The second lowest was 'Give comment in discussion' (VC7) with one in frequency and 13.00% in percentage. The total score for verbal communication (VC) of social communication deficits was 50.00%.

**Table 2. Data analysis for non-verbal communication (NVC)**

Code	Non-verbal communication (NVC) items	Frequency (f)	Percentage (%)
NVC1	Show something to friend/teacher by using a right sign language	4	50.00%
NVC2	Nod of the head as understand to what friend/teacher said	0	0.00%
NVC3	Shake of the head as not understand to what friend/teacher said	0	0.00%
NVC4	Hand up when have a question to	4	50.00%

	ask teacher		
NVC5	Understand the happy expression when his/her friend happy	8	100.00%
NVC6	Understand the sad expression when his/her friend sad	8	100.00%
NVC7	Understand the angry expression when his/her friend angry	8	100.00%
NVC8	Understand the hate expression when his/her friend hate	3	38.00%
NVC9	Use right body language in right situation	4	50.00%
NVC10	Use a sign to say something	6	75.00%
Total		56.25%	

Table 2 showed the results related to non-verbal communication (NVC) items. The data analysis shows that the lowest non-verbal communication (NVC) reported were 'Nod of the head as understand to what friend/teacher said' (NVC2) and 'Shake of the head as not understand to what friend/teacher said' (NVC3) with zero in frequency and 0.00% in percentage respectively. The second lowest scored was 'Understand the hate expression when his/her friend hate' (NVC8) with three in frequency and 38.00% in percentage. The total scored for non-verbal communication (NVC) of social communication deficits was 56.25%.

Table 3. Data analysis for speech (S)

Code	Speech (S) items	Frequency (f)	Percentage (%)
S1	Use right voice intonation	7	87.50%
S2	Speak loudly when in noisy situations	7	87.50%
S3	Speak normally when not in noisy situations	8	100.00%
S4	Understand the voice tone	7	87.50%
S5	Know the word that want to say	4	50.00%
S6	Forget the word that want to say	3	37.50%
S7	Remember the word that want to say	2	25.00%
S8	Syllable in word dropped	4	50.00%
S9	The beginning or end word dropped in the conversation	4	50.00%
S10	Repeat the same word in the conversation	8	100.00%
Total		67.50%	



Table 3 shows the results of speech (S) items. The data analysis shows that the lowest speech (S) reported was 'Remember the word that want to say' (S7) with two in frequency and 25.00% in percentage. The second lowest scored was 'Forget the word that want to say' (S6) with three in frequency and 37.50% in percentage. The total score for speech (S) of social communication deficits was 67.50%.

**Table 4. Data analysis for social interaction (SI)**

Code	Social interaction (SI) items	Frequency (f)	Percentage (%)
SI1	Look at the face and eyes of the person that talking to you	8	100.00%
SI2	Give a smile	8	100.00%
SI3	Give an applause when your friend answers correctly	8	100.00%
SI4	Look the other way when friend/teacher is talking	7	87.50
SI5	Pay attention to the person that talking to you	5	62.50
SI6	Accept friends request to play with	8	100.00%
SI7	Do activities with friend	8	100.00%
SI8	Can get along with others	8	100.00%
SI9	Know their friend	8	100.00%
SI10	Understand social situation (laughing when his/her friend makes a joke)	8	100.00%
Total			95.00%

Table 4 shows the results related to social interaction (SI) items. The data analysis shows that the lowest social interaction (SI) reported was 'Pay attention to the person that talking to you' (SI5) with five in frequency and 62.50% in percentage. The second lowest scored was 'Look the other way when friend/teacher is talking' (SI4) with seven in frequency and 87.50% in

percentage. The total scored for social interaction (SI) of social communication deficits was 95.00%.

## **Discussion**

This study was designed to increase our knowledge concerning social communication deficits among student with learning disability in their primary aged. But, not all the normal students are not risk with the impairments of social communication (Donno, Parker, Gilmour & Skuse, 2010). Students with social communication disorder can be observed in various classroom settings, not just in special education settings. It is important for general education and special education teachers to be aware of social communication disorder because it affects all students' ability to learn. Thus, it impacts and risks on the purpose of their social life.

The main domains of social communication deficits with the current finding shows that the student with slow learner were lacking in terms of reciprocal verbal communication and speech aspect that affected the social interaction skills. The finding supported the previous findings which indicated that the disruptive primary-school age that met clinical criteria for an autism-spectrum disorder performed poorly with their verbal communication aspect and their ability to recognise direction of eye gaze (Topal, Samurcu, Taskiran, Tufan, & Semerci, 2018) then followed by speech aspect especially in the use of words. They were limited in remembering the word they want to say and in the middle of talking. Therefore, their friend/teacher were confused with the things that they try to convey with the use of word.

The second highest social communication deficits was a non-verbal communication aspect. The slow learner students proves that they were difficult to show their understanding to what their teacher said by shaking their head and understanding the expression of hate that was shown by their peers. This result supported Topal, Samurcu, Taskiran, Tufan, and Semerci (2018) and Donno, Parker, Gilmour and Skuse (2010) that the domains of social communicative impairment we identified were in terms of reciprocal social interaction skills plus verbal and non-verbal communication.

## **Conclusion**

In conclusion, the studies relating to the deficit in social skills towards students with learning disability are still limited. Parents, teachers and educators should assist each other in order to facilitate the process of learning. Being adapted with the surrounding in the context of social purposes (for example: making and having a friend, friendly communicate with peers/teachers, wants and needs fulfilled and so on) is fundamental for every student.

The current findings in this study concluded that the social communication deficits and student with learning disability were scored to have highest deficits in verbal communication and non-verbal aspect in social communication skills. The students considered as slow learner were most lacking in giving a prediction and giving comments or reviews during teaching and learning session. It is followed by speech aspect. They cannot remember the word they want to use when speaking and the word they used while talking to their peers or teachers.

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### **Corresponding Author**

Dr. Norfishah Mat Rabi

Faculty of Human Development, Universiti Pendidikan Sultan Idris, Malaysia

(Email: norfishah@fpm.upsi.edu.my)

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