

## English Vocabulary Teaching Strategy: Presenting Meaning and Form to Autism Spectrum Disorder Students\*

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This study investigates the strategies that teachers employ when presenting the meaning and form of a novel English word to students with autism spectrum disorder (ASD). This case study observed and interviewed three teachers who taught five ASD students with diverse characteristics and varying language proficiency. Thematic analysis was conducted by integrating a top-down approach, based on the vocabulary teaching strategies commonly used with typically developing students, and a bottom-up approach, based on the emerging data. The results indicate that, similar to their typically developing peers, the meaning and form of the new English word were introduced by connecting to the first language, providing first language definitions, relating to real objects and phenomena, encouraging students' active participation through elicitation, and conducting oral drills and word spelling. However, unlike typically developing students, the teachers presented English vocabulary to ASD students while making an effort to capture their attention and engagement in the learning process. This study offers suggestions for teachers and recommendations for future research.

**Keywords:** autism spectrum disorder, form, meaning, vocabulary teaching strategy

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## 1. INTRODUCTION

There are various stages involved in the acquisition of a new word. When a second language learner encounters a word for the first time, the first stage is the initial registration and retention of a word, followed by its consolidation in the learners' mental lexicon, the transformation of passive or receptive knowledge into productive and active skills, and the end integration into the learners' competence. It eventually becomes embedded in their language proficiency and can be instantly recalled when needed (García, 2024). The acquisition of vocabulary poses challenges for young learners of a second language (Teng, 2022). In addition, there are more challenges for young learners who do not exhibit typical development, for example, individuals diagnosed with autism spectrum disorder (ASD). They face difficulties in social communication and interaction, as well as restricted and repetitive behaviours and interests (American Psychiatric Association, 2013; Lisak Šegota et al., 2020). Despite their ability to effectively retain phonological information, these children struggle to understand the meanings of words (Vulchanova, Saldaña, & Baggio, 2020).

It was believed that children's use of prior knowledge could largely account for the correctness and appropriateness of their initial assumptions about the meanings of new words (Nagy & Scott, 1990). Although typically developing (TD) children are able to accurately infer word meanings, language impairments in ASD may be exacerbated by specific difficulties monitoring word-object co-occurrences. However, a study conducted by Hartley, Bird, & Monaghan (2020) showed that under appropriate conditions, children with ASD can acquire new vocabulary with the same precision as TD children, provided that their expectations are grounded on their existing receptive language skills. This notion raises questions about the strategies that the teacher should employ to establish suitable conditions for students with ASD and assist them in developing vocabulary.

There was a study about vocabulary knowledge and foreign language enjoyment in TD students (Kralova, Kamenicka, & Tirpakova, 2022). Engaging in pleasant emotional experiences during classes can foster a favourable attitude towards a target language and the learning process itself. ASD students have challenges in social-emotional reciprocity (American Psychiatric Association, 2013). They have problems paying attention, making eye contact, maintaining their interaction and involvement in back-and-forth communication, relating to their personal experiences and emotions, and noticing other people's thoughts and feelings. The information about engaging in the emotional experience, attention, and involvement of ASD students who have various traits is still limited. Therefore, further investigation is needed.

Learning word meanings requires repeated exposure to a wide range of circumstances, and expanding one's vocabulary requires even more exposure to the language. The exposure

could be by mapping the form and meaning (Dawson, Rastle, & Ricketts, 2021), mapping the sound and meaning (Hayakawa & Marian, 2023), presenting vocabulary learning cues (Rivera Pérez, Hart, & Lund, 2021), preparing a visual environment and making the students recognize the vocabulary items to increase their vocabulary intake (Alamri & Rogers, 2018), having conversations that involved a significant amount of teacher elicitations and extensions (Cabell, Justice, McGinty, DeCoster, & Forston, 2015), using movement (Skoning, Wegner, & Mason-Williams, 2017), and synchronizing gesture and speech (van Compernelle & Smotrova, 2017). Those exposures were given to TD students and seemed to be successful and effectively rendered the meaning of the unknown words to the students.

Little evidence is available regarding the effective strategies and methods of teaching English as a foreign language to ASD children (Zohoorian, Sadr, Mohammadi-Nezhad, & Sadr, 2024). Students diagnosed with ASD generally have a distinct pattern in their acquisition of linguistic skills. The language teaching must be customized to meet their specific requirements, which are most often highly personalized. There was research in Indonesia about the teacher's strategy for teaching English to students who were not TD students. Several previous investigations have documented that effectively using teacher talk (Setiadi, 2017), visual media (Maysuroh, Dwimaulani, Wati, Nurhayati, & Yusri, 2024), oral language comprehension, PECS and echolalia treatment (Lasintia, Prihantoro, Edy, & Ariani, 2021a) facilitate ASD Indonesian students in the English teaching and learning process. However, Maysuroh et al. (2024) argued that Indonesian teachers and educational institutions still needed more preparation to meet the requirements of their students, especially in terms of teaching strategy. They suggested implementing several strategies for teaching children with autism.

Further research must be conducted to identify the best practices for teachers to include ASD learners in the English language learning process (Gałązka & Dick-Bursztyn, 2019). Moreover, the application of optimal foreign language pedagogy for students with ASD can serve as an effective framework to enhance their abilities in social skills and willingness to communicate (Golshan, Moinzadeh, Narafshan, & Afarinesh, 2019). The current study attempts to identify the best practices and fill the gap by investigating teachers' strategies for teaching English to ASD students, particularly the meaning and form of English vocabulary.

Inadequate vocabulary is not a characteristic feature of ASD and has received less research attention (Vulchanova, Vulchanov, & Allen, 2023). Recent studies show that autism has an intriguing word-learning characteristic. Although acquiring form is considered simpler than comprehending the word's meaning, teachers need to give attention to both because of the heterogeneous linguistic profile of ASD students. Moreover, teachers may need help to devise customized resources for each student in the classroom during the teaching and learning session due to their diverse characteristics and preferences (Hashim, Yunus, & Norman, 2022). The strategies of teachers in presenting word learning, pairing form and

meaning while being aware of the traits of autistic students would be the focus of this study. According to recent research, gestures significantly contribute to vocabulary development in children with Autism Spectrum Disorder (Ökcün-Akçamuş, Acarlar, Keçeli Kaysili, & Alak, 2019). In addition, using repetition and drilling (Altakhaineh, Mahmoud, & Abukhater, 2020), pictures (Takriyanti, Sulistiyo, Sartika, Hamdan, & Chaniago, 2022), visual aid (Bidari & Yanti, 2021), and adapted shared reading (Laçin, 2023) might be considered beneficial to teach new words to children with ASD. Other favourable teaching strategies need to be explored. Therefore, this study aims to investigate the strategies used by teachers in teaching English vocabulary, especially in presenting the meaning and form of a new English word to ASD students who have heterogeneous linguistics competence. The research question of this study is *'How do the teachers present the meaning and form of new English vocabulary to ASD students?'*

## 2. REVIEW OF THE LITERATURE

### 2.1. Word Learning

Language is a very effective means of human communication as it enables us to articulate and comprehend complex meanings in real and immediate time (Roehm, Sorace, & Bornkessel-Schlesewsky, 2013). The word learning process is often hypothesized to involve young children first identifying the phonological segments that correspond to words (speech analysis), then mapping those segments onto meaning. Successful acquisition of vocabulary necessitates the effective integration of form and meaning (Vulchanova et al., 2023).

It is believed that a word has been learned if the students know its spoken/written form and meaning. The form-meaning link is indeed the first and most crucial lexical element which must be acquired and may be adequate to facilitate recognition (Schmitt, 2008). Prior to explaining the meaning or form of second language words, teachers must consider the nature of the vocabulary, the proficiency and characteristics of the students, and the value of the applied strategies for the learners (Alqahtani, 2015).

### 2.2. Strategies for Presenting Meaning

Teachers can use a variety of strategies and activities while teaching vocabulary to introduce and present the form and meaning of new lexical items. The teacher provides both the meaning and form aspects of the lexical item, which can be presented in either sequence. Lexicon items can convey their meaning either verbally or non-verbally. Takač (2008) suggested the most often recognized strategies for presenting meaning and form based on

Hatch & Brown, Nation, Sokmen, and Thornbury. However, these strategies were the strategies for typically developing (TD) students. Since there is limited information about vocabulary teaching strategies to teach special needs students, particularly autism spectrum disorder (ASD) students, the current study is essential to contribute to the existing literature.

The first strategy to present the meaning is connecting the second-language word to its corresponding first-language counterpart Takač (2008). This teaching strategy is mostly employed to check understanding, but it can also be used to highlight the similarities or differences between second and first language. Checking ASD students' comprehension of the information given could be done by applying teacher talk (Setiadi, 2017). The second strategy is defining what is meant. Synonyms, antonyms, analytic, taxonomic, describing the function, superordinate terms, grammatical definition, classification, and the so-called full definition—the kind that resembles word definitions in monolingual dictionaries—are just a few of the many ways that definitions can be expressed. In order to support lexical growth and the long-term retention of lexical items, definitions should be straightforward and unambiguous, and they should be supported with further procedures.

The third strategy is contextual presentation. In order to effectively contextualize the lexical term, the teacher sets up a situation—almost like a story. The topic suitable for ASD students is their daily routine (Lasintia, Prihantoro, Edy, & Ariani, 2021b). The context can be provided in a single sentence, but the teacher can also provide multiple sentences that contain the word. After that, students infer the meaning based on how the phrases fit together. The fourth strategy is relating the meaning directly to actual things or phenomena. This strategy is frequently employed with novices or younger students. It consists of procedures like visual aids, realia, and demonstrations that also act as cues to help recall lexical items. ASD students are visual approach learners. They learn better through pictures (Hashim et al., 2022). Visual material can promote ASD students' motivation (Maysuroh et al., 2024). Visual aids are considerably more successful if they are combined with a verbal definition because they lower the likelihood of making a mistaken guess. The strategy to give ASD students the ability to infer the meaning of a new word through context and combination was investigated in this study.

Moreover, the involvement and personalization of ASD students were also studied. The last strategy by Takač (2008) is encouraging the active participation of students in the presentation. By asking students to provide definitions or synonyms, for example, or by showing a picture and asking them to contribute a word, the teacher helps students figure out the meaning of the word from its parts or through elicitation. In addition, personalization is important to include since it also improves memory.

### 2.3. Strategies for Presenting Form

Learners must be encouraged to pay attention to the word's orthographic and phonological forms in order to make the connection between meaning and form. To present the form of new English words, the teacher can do oral drills (Takač, 2008). The students listen as the teacher says the word aloud multiple times. They recite the word aloud in groups or on their own, after which they say it quietly to themselves in low tones. ASD students learn through routine and repetitive actions (Hashim et al., 2022). Repeating and practising several times helps them make connections between meaning and form. The teacher can also present graphic representation and phonetic transcription of the emphasized syllable, as well as graphic form presentation by writing the word on the board, italicizing it in the text, or both. The last is encouraging students to attempt spelling the word.

## 3. METHODOLOGY

Considering the research question about how the teachers presented English vocabulary meaning and form to Autism Spectrum Disorder (ASD) students and the researchers' limited control over behavioural occurrences, doing a case study would be the most suitable method. Thus, the present study employed a case study methodology, a type of qualitative research. This method is well-suited to the aim of the study since it enables researchers to investigate research phenomena inside its authentic setting (Yin, 2014). Through an in-depth investigation, case study research facilitates a deeper understanding of the phenomena (Duff, 2008); in this case, the strategies used by teachers in introducing a second language vocabulary to students with (ASD). Thus, this study applied a case study to describe and explain an in-depth understanding of the English vocabulary teaching strategy used by teachers to ASD students.

### 3.1. Participants

Two teachers who specialize in special needs classrooms and one regular classroom teacher were involved in this study. The two special needs teachers only handled ASD Students 1, 2, 3, and 4 in the special needs classroom. They prepared individual education plans for each ASD student. Teacher 1 had two years, and Teacher 2 had one year of experience dealing with ASD students. Meanwhile, Teacher 3 was the third-grade teacher who had ten years of experience teaching special needs students in the mainstream classroom. The teachers' strategies for introducing English vocabulary to ASD students were observed.

Five ASD students were student participants. Their indications of autism are characterized

by difficulties in social interaction and communication, as well as the display of restricted interests and behaviours. Nevertheless, their linguistic skills exhibited a wide range, spanning from highly verbal to minimally verbal. The students were assigned pseudonyms.

Student 1 was an articulate third-grader with proficient English language abilities. He was familiar with the English names of animals and thoroughly enjoyed drawing them. Student 2 was in the fourth grade. He needed more English communication. He still struggled with establishing sustained eye contact. Frequently, he would audibly repeat the teacher's words or sentences. Student 3 was also enrolled in the fourth grade. He was competent in sketching every detailed feature of an electronic gadget, and he consistently discussed electricity without concern for the opinions of others. Student 4 was in first grade and had no previous exposure to the English language. He demonstrated fluency in initiating conversations in his first language, showed exceptional skill in imitating his classmates, enjoyed physical activities, and occasionally disrupted other students. These four students were placed in the special needs classroom due to their autistic traits and difficulties in adequately understanding the material in their regular classes. Nevertheless, those children engaged in collaborative activities with their typically developing classmates in the mainstream classroom during several subjects such as art, music, English, and physical education.

Different from those students, the last student participant, Student 5, was assigned to the regular third-grade classroom. He was an Asperger student and had excellent English proficiency. His English was like an adult native speaker. All the five students were under observation. No type of treatment or change was administered to them by the researchers. This study would like to investigate the strategy used by the three teachers in presenting the meaning and form of new English vocabulary to five ASD students with different language proficiency, ranging from native-like (Student 5), highly-verbal (Student 1), minimally verbal (Student 3 and 4), and almost non-verbal (student 2).

### 3.2. Data Collection

The data refer to the strategies utilized by the teachers in teaching the meaning and form of new English words to ASD students. The study entailed doing continuous observations for a duration of four hours each day, four days each week. This study was conducted over a period exceeding nine months in order for educational research to be classified as longitudinal (Saldana, 2003). Before starting the data collection, the researchers went to the school twice a week for three months to make ASD students familiar with them. ASD students have challenges interacting with new people. By having early interaction and communication, the researchers could get natural and necessary data. The teacher interview took place following the observation to validate the observational data.

There were two categories of data gathered during the observation process: audio recordings and field notes made by the researcher either during or immediately after the observation. The recording was transcribed. The interviews were recorded using mobile phones and systematically transcribed verbatim. Preceding data processing, the transcriptions were forwarded to the teachers for validation.

### 3.3. Data Analysis

An analysis of the qualitative data obtained from observations and interviews was conducted using thematic analysis to identify, examine, and describe recurring themes in this study. The researchers analyzed the collected data, took systematic notes, and classified the data into multiple categories. Thematic analysis can be undertaken in numerous ways, including deductive analysis, which is driven by theory, and inductive analysis, which is driven by the data (Braun & Clarke, 2012). This study used a combination of both analyses.

Classification and analysis of the encoded data were conducted using vocabulary teaching strategies (VTS) proposed by Takač (2008), specifically the category of presenting the meaning and forms of new lexical items. It adopted a deductive or top-down approach. The recordings were transcribed, and the teachers' instruction and communication with ASD students were classified based on Takač's strategy of presenting meaning and form. For example, when the teacher translated the English word to an Indonesian word, it was classified as '*connecting the second language to the first language*'. Another example is when the teacher pointed while saying the English word; it was classified as '*Directly connecting the meaning to real objects*'.

Since the VTS proposed by Takač was made for TD students and there is limited information about the strategy presenting meaning and form specifically for ASD students, the researcher also employed an inductive approach, namely a bottom-up approach. The instruction and communication with ASD students that could not be classified under Takač's VTS framework would be categorized as emerging data.

Before completing the themes of the research findings, a harmonization was undertaken between the bottom-up and the top-down approaches. The top-down approach was used to organize and focus on the strategy commonly used by teachers in introducing the meaning and form of second-language words based on the theory. Meanwhile, the bottom-up approach was used to understand the strategy used by teachers concerning the autistic traits of ASD students based on basic observation. Both approaches were expected to support a more rigorous and organized data analysis.

The concept of triangulation enhances the internal validity of research. In order to verify the emerging facts, this study utilized two data sources acquired by observation and interviews. Moreover, in order to ensure internal validity, the study used member checking.



The members were the teachers, who collaborated to validate the researcher's interpretation. In addition, the ethical clearance of the current study was granted by The Research Ethics Committee of Stikes Bina Usada Bali.

#### 4. RESULT

Like typically developing students, English vocabulary was introduced to students with autism spectrum disorder (ASD) by presenting the form and meanings of a new English word before consolidating it. In addition, the finding also reveals that the English vocabulary was presented to enhance their attention and engagement during the teaching process. The teachers recognized that ASD students faced challenges with communication and social interaction. Indeed, such students often struggled to establish direct eye contact. Their capacity for sustained focus was restricted. Hence, the teachers attempted to foster students' concentration while introducing novel words.

The teachers in this study used several English vocabulary words to elicit students' attention, such as '*Attention!*' '*Focus!*' '*Listen!*' '*Listen, please!*' '*Look!*' '*Look at that!*' '*Look at me!*' and '*Are you ready?*' They frequently repeated the instructions. In addition, they strategically positioned themselves by lowering their body to the same height as the students, communicated with a gentle voice, and maintained direct eye contact with the students. The teachers purposefully employed English in basic instructions and regular activities to acquaint ASD students with English vocabulary. It was the established policy in the school.

In terms of engagement, managing the involvement of students with ASD is a challenging task. Each student possessed specific interests and preferred to engage in private conversations regarding their interests. In the school, the students were expected to participate and collaborate actively in the learning process. However, considering their autistic characteristics, the school assigned Student 5 to study in the mainstream classroom with his typical developing peers. Meanwhile, four ASD students had pull-in and pull-out systems, in which they mostly studied in a special needs classroom and only studied with their typically developing peers in English, music, art, and physical exercise lessons. They were taught by the classroom teachers and accompanied by special needs teachers who provided help with their learning.

Due to difficulties in participating in regular classes, ASD students were provided with Individual Education Plans (IEPs) tailored to their cognitive abilities and specific characteristics of autism. Despite two teachers overseeing four ASD students in the special needs classroom, managing their engagement remained difficult. Sometimes, the students obeyed the instructions for drawing, colouring, and completing the worksheet. However, at other times, they screamed, tore the worksheet, crumpled the paper, fled the classroom,

loudly spoke about their favourite object or activity, and refused to engage in the lesson.

Since the teachers knew that working with ASD students required tolerance and understanding, they did not scold those students. A sensory corner, toys that could be squeezed, a tent, used papers, a timer, and a curtain were among several things the school had set up to help them relax. Teachers spoke in English and pointed to those things to introduce the words. The sensory corner and tent were the places for calming those students when they had tantrums or meltdowns. They could play with the squeezing toys as they sit or lie down.

Excerpt:

T-1: "If not ready, you can stay in the sensory corner."

T-1: "Student 1, do you want to lie in the sensory corner?"

The curtain and the used paper were utilized as rewards to get students engaged with learning. After they complete the worksheet or activity, the teacher may provide the students with a reward to write the alphabet (Student 4), draw on the used paper (Student 3), or play the curtain (Student 2).

Excerpt:

T-1: "Math, *lalu* drawing." [Math first, and then you can draw.]

T-1: "Student 2, *mau korden? Worksheet dulu!*" [Student 2, do you want to play the curtain? Do the worksheet first!]

#### 4.1. Presenting the Meaning

In presenting the meaning of a novel English word to ASD students, the teachers connected the English word to the first language, Indonesian, defined the meaning, directly connected the meaning to real objects or phenomena, and invited students' active involvement through elicitation.

##### 4.1.1. Connecting an L2 vocabulary with its equivalent in L1

The ASD students attended a bilingual school where a school policy mandated that instructions for routine tasks must be communicated exclusively in English. Full English instructions could hardly be implemented for ASD students. However, the teacher tried their best by translating the instructions. During the lessons for ASD students, the teachers introduced a new English word by stating it in Indonesian, the first language (L1), and then translating it into English, the second language (L2). The teacher only translated

the word without exploring the similarities and differences between the two languages. The translation from L1 to L2 was provided at the time of instruction. For instance, prior to eating, the teacher said, “*Cuci tangan dulu*, go wash your hands!” Another instance spoken following a meal was when the teacher instructed, “*Bersihkan meja*, tidy up the table!” Prior to translation into L2, the instruction was provided in L1.

The teacher always intentionally provided L2 translation for the minimally verbal ASD students. Students like these required more instructions compared to the very articulate students. The teachers stated the first and the second language while pointing to the picture, for instance, “*Ini gajah*. Elephant”. Then they instructed them to repeat the word “Elephant”—translation followed by repetition. Occasionally, looking at the picture, these students were able to mention the words in their native language, but when the teacher enquired about the English word, they failed to respond. Consequently, the teacher provided the English word, for example, “*Hijau bahasa Inggrisnya* green.” [The English word for *hijau* is green.]

A translation to the second language was also given to the very articulate student (Student 1) every time he asked for a translation. For example, after observing his seniors playing football in the schoolyard, Student 1 enquired of the teacher, “*Sepak bola bahasa Inggrisnya apa?*” [What is the English word for *sepak bola*?] The teacher answered. In addition, each day, prior to leaving, every student had the opportunity to watch ten minutes of YouTube content. Student 1, who had a restricted interest in the larva cartoon movie, frequently requested the Indonesian translation of the movie titles.

Excerpt:

S-1: “Secret of snail *apa bahasa Indonesiannya?*” [What is the Secret of snails in the Indonesian language?]

T-1: “Rahasia siput.”

Furthermore, the students are required to make a line before they go to the garden or yard. “Attention, cover-up, attention,” the teacher instructed. In response to Student 1’s inquiry on the meaning of cover-up, the teacher translated the phrase as “Cover-up, *lencang depan*.” From that point onwards, Student 1 had consistently translated the making line instruction. While Student 1 frequently requested the translation, Student 5, who is known for his verbal communication skills, has yet to make such requests. His proficiency in the English language was outstanding.

Following the introduction of L2 words, repetition, gestures, and visual aids were employed to convey the meaning of the L2 words during translation effectively. The teachers included the second language word in the first language instruction and repeated it.

Excerpt:

T-2: “Student 4, *coba keluarkan* pencil casemu! *Coba keluarkan kotak pensilmu!*”  
[Student 4, show me your pencil case!]

The teacher repeated the targeted word and used a gesture by touching his head.

Excerpt:

T-1: “Student 3, where is your cap? Cap. *Topi?*”

Although providing similar instructions, the teachers occasionally delivered them in varying ways. For instance, when instructing the students to place the sticker book in their pockets and introducing the term “pocket”, they utilized English with a student who spoke English fluently (Students 1 and 5) and Indonesian with a student who spoke basic English (Students 2,3, and 4). He provided verbal instructions to the students while pointing their pockets to prompt them to recognize the L1 meaning of the term “pocket”.

#### 4.1.2. Defining the meaning

When providing definitions to students with Autism Spectrum Disorder (ASD), the teachers refrained from using synonyms, antonyms, or monolingual definitions in English due to the student’s inability to comprehend them. Furthermore, the instructors did not provide a taxonomic definition for the new word (Winter is a season), examples in the second language (Stationery is similar to a pen or pencil), superordinate adjectives (a tulip is a flower), classification (a dog is a carnivore), grammatical definition (better is a comparison of good), or a word definition from a monolingual dictionary.

The teachers defined a novel English word by providing its word definition in the native language. Although the new word was presented in English, the definition was provided in Indonesian to enhance the student’s comprehension. The definition may include explaining the function, such as the function of a hammock placed in the garden. It also included an analytic definition; for example, a profession can be defined as someone who performs a certain task at a particular place using particular devices.

Excerpt:

Teacher 2 pointed a picture in the worksheet.

T-2: “*Ini Namanya* hairdresser. » [This is a hairdresser.]

S-1: “Hairdresser”

T-2: “Hairdresser *itu saat bekerja memotong rambut menggunakan gunting.*” [When working, the hairdresser cuts hair using scissors.]

#### 4.1.3. Directly connecting the meaning

The teacher employed dual encoding to establish a connection between the meaning of a novel English word and the real object, phenomena, activity, and position. When the teacher presented the English word *'box'*, he pointed to a box. Upon explaining the meanings of *'put on'* and *'cap'*, the teacher provided the translation in the native language while gesturing with his hand. In addition, during the presentation of the meaning of *'sit down'*, the teacher refrained from providing a translation and instead pointed to a chair. Moreover, upon the initial presentation of the word *'beside'*, the teacher emphasized it by uttering *'here'* and indicating the designated location. Lastly, as mentioned previously, upon instructing the students to form a queue, the teacher demonstrated the correct procedure by exclaiming *'attention, cover-up, and attention'*.

Excerpt:

T-2: "*Taruh di box.*" [Put in the box] (pointing to the box)

T-1: "Student 1, put on your cap. *Pakai topinya!*" (translating and pointing to his head)

T-2: "Student 4, sit down, please." (pointing to the chair)

T-3: "Student 3, beside Student 2, please, here, thank you." (pointing to the place)

T-2: "Line up, please. Attention. Cover up!" (demonstrating)

#### 4.1.4. Learners should be actively involved in the presentation. (Elicitation)

The teacher engaged the students in both conversation and active participation. Among the projects undertaken was the growing of mung bean seeds. Upon creating holes in the plastic bottle, the teacher cautioned the children and proceeded to introduce the word "fire". Within an activity involving tangible items, the teacher introduced a novel word.

Excerpt:

T-2: "Be careful. It is fire! What is it?"

S-4: "Fire"

By relating the words "sunny, rainy, or cloudy" to actual occurrences and visual aids, the teachers presented the weather-related vocabulary. The students were instructed to look out the window, observe the outside weather, and draw a conclusion. Additionally, they gestured to the image on the weatherboard, which is a circle-shaped board with the names and photographs of the weather. In addition to weatherboards, teachers also utilized a feeling board to display language related to students' emotions. The instructor addressed the student's emotions. By saying the words and pointing at the images of the happy, sad, angry,

or other emotions on the board, they were able to connect the emotion to the visual.

By actively engaging the students in the discussion and establishing connections with tangible things, activities, phenomena, personal belongings, and visual aids through gesture and translation, a new English word was successfully introduced to students with Autism Spectrum Disorder (ASD). Sometimes, the teachers needed help in eliciting the meaning of a new word, especially from students who spoke minimally. Consequently, they never extended an invitation to those students to provide a suitable word when presented with an image, nor did they request any definition or English equivalent.

#### 4.2. Presenting the Form

In addition to the word's meaning, it is essential to introduce the new English word's spoken and written forms. When the teacher introduced the form to the ASD students, the students participated in an oral drill. They had to repeat the new words or phrases out loud after hearing them many times. They were encouraged to spell the word correctly. The highly verbal ASD students were the only ones who could correctly spell the words.

When teaching new English words to the minimally verbal students, they would occasionally drill every syllable while pointing to the worksheet's picture.

Excerpt:

T-2: "*Gambar apa ini?* Ele..." [What picture is it? Ele...]

S-4: "Ele..."

T-2: "Elephant"

S-4: "Elephant"

It was observed that teachers never provided the highly and minimally verbal ASD students with the phonetic transcription of the stressed syllable. In addition, the teacher had never written the new English word on the board. There was no writing exercise on the board. Furthermore, they never emphasized or underlined a new word in the text when they were reading a story. Typically, they drill the students after translating it.

Two highly verbal ASD students, referred to as Students 1 and 5, were proficient in English. Still, occasionally, their teachers assigned them speaking drills. Once they committed an error, the teacher corrected it, and they proceeded to repeat it. During an art lesson in October, the teacher instructed the students to draw a ghost using their hands. Halloween was the prevailing theme for that month. Student 1 identified the task as challenging and consistently said, "It is so harder." After making corrections, the teacher instructed him to repeat. The drill prompted the student to produce the correct sentence. He persistently said, "It is so hard!" He expressed his dislike for Halloween

and unwillingness to participate in the activities.

Concerning writing, the teacher motivated the ASD students to orthograph the words. Student 1 demonstrated proficiency in writing English vocabulary pertaining to animals and colours. Periodically, he would enquire of the teacher about the correct spelling of specific words. Student 5, who has Asperger's syndrome, was able to articulate English words and sentences accurately, applying proper spelling and grammar. Student 3, the student with limited verbal communication skills, was able to write words associated with electrical gadgets such as speedometers, big TVs, and broken TVs. He drew and wrote the words. Meanwhile, Students 2 and 4 had never written any English words on their own.

## **5. DISCUSSION**

Teachers must use multiple strategies to help students acquire new vocabulary in a second language, as it contributes significantly to effective communication. Vocabulary proficiency is of paramount importance when acquiring a second language. Hence, the acquisition of vocabulary is of top importance. A sufficient vocabulary among students can impede their ability to comprehend others and effectively express themselves (Feng, Alsager, Azizi, & Sarabani, 2023). In order to improve students' vocabulary memory, teachers should actively promote cognitive involvement in the classroom. This study proposes the implementation of a thorough vocabulary processing strategy, as stated by Aguilar García (2024), by encompassing a longer duration, increased exposure, and various kinds of modification and application across different activities. The vocabulary teaching strategy for students with Autism Spectrum Disorder (ASD) involved strategies such as presenting the meaning and form of unfamiliar English words, assisting them in memorizing the words, and periodically assessing and analyzing their progress (Takač, 2008). The results of this study support this notion. The finding presents the English vocabulary teaching strategy implemented by the teachers in presenting meaning and form to ASD students that effectively meet the needs and characteristics of those students.

It was stated that given the difficulty in fostering English interactions among ASD students, teachers generally refrain from using English communication activities to enhance social communication for these students (Lasintia et al., 2021). Nevertheless, the results of this study indicated that the teachers made an effort to engage in English conversation and communication with students with ASD. In order to engage the student in a teaching-learning activity, the teacher may provide verbal instructions either through teacher talk or during the conversation (Setiadi, 2017). The teachers complied with the school regulations to engage in English communication during activities related to daily routines. Both teachers and occupational therapists agreed that children with autism gain knowledge by engaging in

repetitive actions and following established routines (Hashim et al., 2022). Maintaining regular interaction and engaging in routine activities may be advantageous for students with ASD as they actively seek a stable and predictable routine (Zohoorian, Zeraatpishe, & Matin sadr, 2021).

Furthermore, the five individuals with ASD in this study have difficulties in focusing their attention. They encounter difficulties in obtaining information from their environment (Bidari & Yanti, 2021), have challenges in maintaining focus and concentration during the learning process without any external aids (Maysuroh et al., 2024), and can only successfully memorize words if an adult sustains their attention (Andreou & Raxioni, 2022). Contrary to typically developing children who possessed joint attention abilities before the onset of verbal language, students with ASD were able to engage in joint attention after the learning of verbal language (Ökcün-Akçamuş et al., 2019). Thus, it is imperative to pay particular attention to and care for these students (Padmadewi & Artini, 2017).

The investigation of attention, a key determinant in the social initiation and maintenance of students with ASD, is a promising area for future study in the context of language acquisition (Golshan et al., 2019). The previous study demonstrates that in order to capture the student's attention, the teachers hit the table or the whiteboard (Lasintia et al., 2021). This finding revealed different results. The teachers in this study did not do it. Instead, they addressed the students by lowering their bodies to the level of the students, speaking softly, and directing their gaze towards the students' eyes.

The study's results also indicate that the teachers employed translation, repetition, gestures, and visual aids to convey the meaning of the new English words. The naturalistic approach emphasized vocabulary acquisition by inferring meaning from context and avoiding translation and definition of lexical components (Takač, 2008). Moreover, translation, the traditional technique, was seen as ineffective in improving vocabulary retention for students (Feng et al., 2023). However, it is difficult for ASD students to understand the meaning of a word independently.

Although the effort to analyze target words in context is significantly more beneficial for vocabulary learning than the necessity to grasp the meaning of the target words (Park, 2024), children diagnosed with ASD tend to struggle to comprehend the meaning of unfamiliar words within their specific usage context. Hence, it might be more convenient for children to acquire vocabulary when those words are clearly and specifically defined (Lucas, Thomas, & Norbury, 2017). By using existing knowledge networks, definitions efficiently generate initial word representations that are linked to prior knowledge. Furthermore, teachers can utilize planned definitions in interaction with cues such as gestures and images (Dickinson et al., 2019). The results of this study confirm this concept. The teacher consistently provided translations, definitions, prompts, and visual aids.

Students with ASD are visual learners. The utilization of visual aids significantly



improves the teaching of L1 and L2 vocabulary to individuals with ASD (Altakhaineh et al., 2020). Visual aids are beneficial for ASD students in the following ways: they assist in the acquisition of new vocabulary (Akramy, Noori, Orfan, & Hashemi, 2022), facilitate comprehension, ensure that the word is more memorable for the learners (Alqahtani, 2015), and direct them to complete specific activities (Bidari & Yanti, 2021).

Implementing repetition and drilling techniques may be advantageous in introducing ASD students to new vocabulary (Altakhaineh et al., 2020). The teachers may demonstrate or guide the students in using the word, and then the students repeat and subsequently use the word autonomously (Rahn, Storie, & Coogle, 2022). Modelling would be advantageous for students who are at risk of incurring disabilities. To facilitate comprehensive vocabulary development in students, teachers might intentionally teach particular words, engage in conversation, deliver read-aloud presentations, read books aloud multiple times, and provide instructional comments that include new vocabulary (Christ & Chiu, 2018; Dickinson et al., 2019). While repetition and drilling have faced criticism for their mechanical and meaningless nature, they have proven to be beneficial in language therapy for students facing language development difficulties (Ghazi-Saidi & Ansaldo, 2017).

The teacher's role is crucial as students with ASD function as dependent learners. The teacher facilitated their word acquisition by providing them with regular exposure to different contextual situations (Vulchanova et al., 2020). The teachers also employed various strategies for engaging children, including explaining word meanings through visual references, incorporating words into comments when narrating story events, and rereading texts (Dickinson et al., 2019). In addition, they employed tangible items to facilitate the memorization of the words through visualization and spelling exercises (Alqahtani, 2015). They included diverse games to engage the learners and enhance their enjoyment of the lesson (Akramy et al., 2022).

Furthermore, the teachers in this study also employed gestures such as pointing, hand and body movements, and facial expressions. The present study aligns with prior investigations on the utilization of gestures. Prelinguistic communication skills, including gestures, are limited in children with ASD (Ökcün-Akçamuş et al., 2019). Many second language teachers who use gestures assert that they facilitate students in the mastery of the second language vocabulary. Numerous studies have noted that learners are able to remember a word more easily when the teacher demonstrates the gesture linked to the lexical item throughout the lesson (Alqahtani, 2015).

They may also acquire knowledge more effectively when the vocabulary is relevant to their own experiences and when they have a supportive learning experience. In order to create a favourable emotional atmosphere and optimize student learning experiences, the teacher must utilize non-threatening strategies (Kralova et al., 2022). The teachers and school administration in this study endeavoured to support the restricted interests of students

with ASD in order to establish a conducive learning atmosphere. A designated sensory area, tent, and worksheet with images of Larva for Student 1, curtains for Student 2, technological devices for Student 3, and the alphabet for Student 4 were provided for the students' comfort.

## 6. CONCLUSION

Autism spectrum disorder children have diverse autistic traits and linguistic competence. This study investigated three teachers teaching vocabulary to two highly verbal students, one of them an Asperger student with fluent English, and three minimally verbal students with different characteristics and interests. Further study is needed to explore vocabulary teaching strategies applied by a bigger number of teachers. Moreover, since the students in this study were only five primary school ASD students, research related to this topic for higher-level ASD students is recommended. Lastly, it would also be interesting to get information about how vocabulary teaching strategies used by teachers contribute to ASD students' English vocabulary mastery.

English vocabulary was introduced to students with autism spectrum disorder (ASD) by presenting the form and meanings of a new English word before consolidating it, as is the case with typically developing students. The study revealed that three teachers applied the vocabulary teaching strategies proposed by Takac to teach the meaning and form of English words to five ASD students. The strategies effectively met the needs and characteristics of those students who had heterogeneous linguistic profiles. In providing the meaning of a novel English word to students with ASD, teachers connected the English term with the Indonesian language, provided a definition, directly associated the meaning with tangible objects or phenomena, and encouraged active student participation by elicitation. Meanwhile, when the teacher presented the form to the ASD students, they engaged in an oral drill and encouraged the learner to spell the word.

Different from the vocabulary teaching strategy used for the typically developing students, in teaching ASD students, English vocabulary was also introduced to increase the student's engagement and attention during the instructional process. To attract the attention of ASD students, the teachers employed several English vocabulary words. Moreover, to familiarize ASD students with English vocabulary, the teachers intentionally incorporated English into basic instructions and routine tasks. Teaching a second language to ASD students has more challenges. Therefore, the teacher is advised to be patient, tolerant, and understanding.

This study implies that the teacher should be aware of the appropriate teaching strategy to present the meaning and form of new English words to ASD students. The teacher should also prepare the translation, definition, prompts, gesture, and repetition. In addition, teachers and school management should identify each student's autistic traits and prepare the visual

media, teaching material, individual education plans, and sensory equipment to make them relax and support their learning experience.

Since this study only investigates the strategy of three teachers, future research should explore a bigger number of teachers. The similarities and differences of introducing new English words to ASD students with various spectrums and language proficiency are recommended for further research. In addition, vocabulary teaching strategies for female ASD students might be an interesting topic.

Applicable levels: Elementary

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