

Self-Made Vocabulary Cards and differentiated Assessments to Improve an Autistic Learner's English Vocabulary Mastery

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Abstract

As autistic learners exhibit different behaviours from their peers, they need differentiated instruction in learning. Hence, to provide equal learning opportunities for a learner with autism based mainly on the principle of modification changing the expected standard performance of the autistic learner, this study employed differentiated instruction consisting of two treatments in Vocabulary Building class. They were the use of self-made vocabulary cards as the basic learning materials and differentiated assessments consisting of quizzes, mid-semester assessment, and final assessment providing opportunities for recycle and repetition beneficial for vocabulary retention and learning in general. The findings indicated that the autistic learner showed satisfactory results on his mastery of bilingual (Indonesian to English) word equivalence written in the vocabulary cards and thus obtained satisfactory scores in the corresponding assessments. He, however, still struggled in using the words he studied in grammatical and comprehensible English sentences. With teacher's verbal step-by-step prompts, however, he could formulate simple grammatical sentences. Based on the results, implications, limitations and suggested directions of future studies are presented.

Keywords: Autism; differentiated assessments; differentiated instruction; modification; self-made vocabulary cards

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INTRODUCTION

As the role of education in every individual's life cannot be denied and it has become one of the primary needs of individuals in the modern world (Padmadewi & Artini, 2017), all learners, including those with special needs, should obtain enough support system to strive (Padmadewi & Artini, 2017; Sheehy & Budiyanto, 2014). In many parts of the world, recognition and special care towards learners with special needs have been explicitly regulated in both developed and developing countries, for examples, Thailand, Malaysia, Nigeria, the United Kingdom, and the United States (e.g.: Archibald & Gathercole, 2006; Dodge et al., 2014; Kantavong et al., 2012; Opartkiattikul et al., 2014; Yahya et al., 2013b). This may imply that inclusive education where learners with special needs are greatly facilitated is becoming a new "norm" in modern education. It has also been stated in the Universal Declaration of Human Rights (Lindahl, 2006). Furthermore, several prominent empirical studies conducted by Sheehy, Budiyanto, and associates (e.g.: Budiyanto et al., 2017; Sheehy et al., 2017; Sheehy & Budiyanto, 2014) along with other studies (e.g.: Solihat & Yusuf, 2018; Wardany &

Hidayatullah, 2018) on inclusive education in the Indonesian educational context in recent years may suggest that the field of education for students with special needs in Indonesia is getting more attention from practitioners in the field.

Among many learners with special needs are learners with autism or Autistic Spectrum Disorder (ASD). As autism is manifested along a broad spectrum, the symptoms and characteristics of autism present themselves in many learners in a variety of combinations, which range from mild to severe (Dodge et al., 2014; Kluth & Darmody-Latham, 2016; Suparno et al., 2010). Hence, some learners with autism may be quite high functioning in the mild condition whilst some others may not be as functioning if their symptoms are more severe (Kluth & Darmody-Latham, 2016). Thus, depending on the severity of the symptoms, these learners are less likely than their normal peers to start conversation, appropriately respond to the conversational turn and be able to understand the emotional states of others (Dodge et al., 2014; Kluth & Darmody-Latham, 2016; Phillips, 2016). Whilst they may be able to decode any information, they may have

difficulty to understand what they read and make inferences from texts (Vacca, 2007). Similarly, on vocabulary level, whilst for example, they can name all colours in English, they may be unable to use them for communication (Padmadewi & Artini, 2017) as they likely have deficiencies in organization and coherence whilst speaking or writing (Vacca, 2007).

In relation to the urgency to provide inclusive education for learners with autism, language learning is one of the educational areas that have yielded various recent empirical study concerning special instructions for these learners (e.g.: Amant et al., 2017; Baker et al., 2018; Chan & Lo, 2016; Lindsey-Glenn & Gentry, 2008) implying the necessity of special education in this field in recent years. Among areas of language learning such as listening, reading, speaking, writing, grammar, and vocabulary, vocabulary learning may be the basis to develop language mastery and communication (Thornbury, 2002) and thus learning vocabulary is imperative to learners with autism and it can be a starting point to develop their language proficiency (Wood et al., 2010).

In general, vocabulary is paramount to language learners and plays a critical role in the formation of both spoken utterances and written texts (Alqahtani, 2015; Maximo, 2000) and as such it is very essential for successful second language (L2) use (Maximo, 2000). However, vocabulary teaching has so far not been very responsive to this important role of vocabulary in L2 learning (Thornbury, 2002) and teaching vocabulary is often considered difficult by many teachers as at times teachers are not confident about how to best and most effectively teach it (Alqahtani, 2015; de Groot, 2006). Besides, despite some empirical studies in the field of vocabulary teaching, vocabulary is still one of the least researched area in language learning (Hunt & Beglar, 2005). Why vocabulary teaching is not really popular may be attributed to the assumption that specific vocabulary instructions are not really necessary as vocabulary learning is often thought to happen by itself (Moir & Nation, 2008). However, as learning vocabulary is very essential for the development of learners' all language skills, vocabulary teaching should never be neglected (Thornbury, 2002).

Whilst vocabulary teaching in English as Second Language (ESL) classrooms is already a challenge, the existence of learners with autism in ESL classes may give another challenge (Baker et al., 2018) because even though they are able to learn (Yahya et al., 2013a), they need special instruction to remedy the deficiencies (Baker et al., 2018). A recent empirical study in the field of special education in the Indonesian ESL setting was conducted by Padmadewi and Artini (2017). Through observations and interviews, they found that the use of visual media through co-teaching and "buddy programmes" could help a learner with autism in learning English more effectively (Padmadewi & Artini, 2017). Specific on vocabulary learning, studies in Malaysia found that helpful practices such as the uses of the first language (L1) and pacing instructions

helped elementary school students with autism to learn sight vocabulary better (see Yahya et al., 2013b, 2013a). Despite the possible contributions of these studies, however, such studies specifically in the Indonesian ESL setting are, to the best of my knowledge, not available despite the importance of vocabulary in L2 learning and the possible challenges to teach it to learners with special needs. Hence, more studies in the field on vocabulary learning in the Indonesian context are urgently needed.

Including learners with autism in a regular class may not be an easy task because these learners may face extreme learning challenge and thus experience a sense of failure if they are to follow regular curriculum instructions (Padmadewi & Artini, 2017). Hence, when including such learners in regular classrooms, teachers need to adjust their teaching by providing differentiated instruction, which is the instruction provided for learners based on their different needs in the same class (Baseggio, 2018; Ford, 2013). It can be done by modifying learning content, modifying the learning process, and modifying the end or expected result (Dodge et al., 2014; Ford, 2013). It does demand commitment, Padmadewi and Artini (2017) warned, but its use can offer the most effective treatment for learners with autism in class where they can experience learning opportunities suitable with their abilities (Ford, 2013).

Furthermore, in response to the call to provide opportunities for my student with autism to thrive in regular classroom and to relay the messages of acceptance, empathy, respect, care, and recognition towards learners with autism in general (Ford, 2013), I gave differentiated instruction to my student with autism in Vocabulary Building class. The instruction includes the use of self-made vocabulary cards and differentiated assessment. To fill the gap in literature attributed to the scarcity of empirical studies on special education in the ESL setting, therefore, this article is intended to investigate to what extent the use of self-made vocabulary cards and differentiated assessment can help the student with autism in learning English vocabulary and how this student is facilitated in learning English vocabulary through these two treatments.

METHOD

Research Design and Participant

This study used observation on an autistic learner-participant's performance when given differentiated instruction in the forms of self-made vocabulary cards and differentiated assessments explained further later. This participant's performance was also measured using comparison of his scores and the mean scores of the class in several quizzes. Benny (pseudonym), the participant, was a male student with autism at the age of 22. He studied at an English Language Education Department (ELED) of a university in Java, Indonesia. He was, at the time of the treatments, a third semester student in the first semester of 2018/2019 academic year. He voluntarily participated in this study and visibly

showed his enthusiasm during the process. Additionally, his mother was aware of the study and responded to it positively. There was a meeting with his mother upon the conclusion of this study to discuss Benny's progress as well.

I taught him in Intermediate Grammar class in the previous semester through which several prior lay observations on his autism symptoms could be obtained. When he was confident about or liked certain topics of discussion, he would talk much in English despite ungrammaticalities and inappropriate dictions, even too much without paying attention to the listeners or his peers who had started showing disinterest. His reading aloud skill was quite good and he could, to some extent, retell what he had read in English in the Indonesian language provided that he was given ample time for preparation. From these two characteristics, it could be stated that this student was categorised into a high functioning learner with autism (Vacca, 2007). He, however, always had difficulty in putting words he knew into comprehensible English sentences, let alone grammatical sentences (see also Yahya et al., 2013b). Furthermore, this student, just like typical learners with autism who have difficulty processing auditory stimuli (Padmadewi & Artini, 2017; Yahya et al., 2013b), also experienced difficulty in understanding too many verbal instructions. Just like an autistic participant in Kim's and Roberti's (2014) study, Benny would likely have difficulty when being told a series of commands at a time. Hence, instructions should always be made simpler and conveyed step by step unless he would be overwhelmed.

Despite his limited ability, as observed, he had the spirit to show his best academically. "[If I do not perform well], I am afraid I cannot join graduation ceremony *on time*" he would put it on many occasions sharing his worry whenever he performed poorly in class. Therefore, providing differentiated instruction that could help him best and thus boosting his motivation and confidence in learning can be very strategic.

Setting

The treatment was conducted in Vocabulary Building class in the odd semester of 2018/2019 academic year. This class, by default, was taken by semester one students. There were 28 students, including Benny, in the present class. The other students, who were mostly new university students, were given explanations on Benny's conditions and on differentiated instruction specifically given to him. The class was conducted once a week every Monday in 16 meetings, including two assessment days. Benny, retook the class as he obtained an E (below 55/100) a year before when did not receive any differentiated instruction and received exactly the same one instead.

Differentiated Instruction for the Student Participant

Treatments conducted for the student with autism in Vocabulary Building class was in accordance with the principles of accommodation and modification in education for students with special needs (Baseggio,

2018; Dodge et al., 2014; Ford, 2013). Accommodation refers to some changes teachers make that affect how learners with special needs learn materials, mainly to help them work around or overcome their disabilities in learning (Dodge et al., 2014; Ford, 2013). Modification means changes that teachers make on what is required to be studied or learned by the students with special needs (Baseggio, 2018; Dodge et al., 2014; Ford, 2013). In other words, teachers modify learning contents, learning process, and the end or expected results (Dodge et al., 2014; Ford, 2013). An example of modification is allowing a learner with special needs not to do the same level of work as his or her regular classmates. In other words, "modifications change the standard for the student; they change what the student is expected to master" (Dodge et al., 2014, p. 31). Bearing these two principles in mind, with the principle of modification being more prominent, I conducted two treatments to facilitate the student participant with autism and these are the use of self-made vocabulary cards and differentiated assessments.

Self-made vocabulary cards

Every other week, all students in Vocabulary Building class were to make ten vocabulary cards at home based on specific topics assigned at the beginning of the semester. The mastery of their self-made vocabulary cards was assessed in review assessment conducted every other week in which they would meet me one by one. The use of vocabulary cards was considered beneficial when learners themselves made them and they contained key elements about the target word (Sheridan & Markslag, 2017).

In total, there were six review assessments assessing learners' mastery of their self-made vocabulary cards. Benny was also required to make his own cards and join review assessment. He, however, was required to make cards whose total number depended on his commitment the week before. So, instead of required to make ten cards for each topic, he made a commitment as to how many cards he was able to make and master and he should try to keep this commitment.

Differentiated assessments

Another assessment conducted in Vocabulary Building class was biweekly quizzes in which learners were required to do a 100-item matching test where they should match Indonesian words or phrases on the left and the English equivalent on the right. In total, there were five quizzes. The year before, in the 2017/2018 academic year when Benny took the class for the first time as a first semester student, he did not receive any differentiated assessment. At that time, the same with the other students, he was required to do exactly the same quizzes and ended up scoring very low. He reported obtaining 17, 25, 28 or somewhere around that out of 100. He reported that he had difficulty in matching all the words within the given time as he would suddenly feel overwhelmed and his eyes hurt when seeing so many items he could not handle. As such, in the present

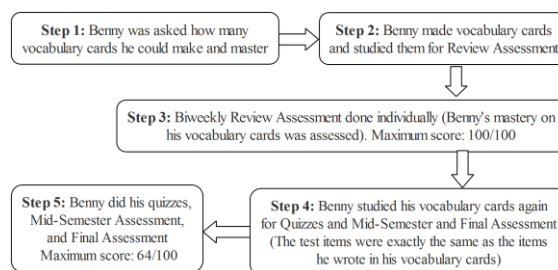
study's Vocabulary Building class, he was expected to master the self-made vocabulary cards as all the words he wrote in the cards would come out in the quizzes.

The same as the biweekly quizzes, there were mid-semester assessment and final assessment in which learners were expected to do 100-item matching test. As for Benny, following the same pattern he had for his biweekly quizzes, he would need to master all the words he wrote in his vocabulary cards as these words would all come out in the assessments.

With regard to the grading, I made a differentiation for Benny. The maximum score he could obtain for the mastery of his vocabulary cards in biweekly review assessment was 100/100, the same as that of the other students. This was based on the consideration that the load of study work they did was relatively the same. However, the maximum score he could obtain in the quizzes, mid-semester assessment, and final assessment was 64/100 whilst his peers doing 100-item matching tests could obtain the maximum score of 100/100. This was made based on the consideration that the other students needed to study and master a lot more words than Benny did. However, despite being

differentiated in scores, Benny was still in an advantage as the score of 64 was the highest score for a C enabling him to pass the class whose passing grade was 60 (the lowest C). Benny might not have been able to attain even this level just like what he did in Vocabulary Building class the year before in which he scored lower than 30/100. The sequence of the treatments for Benny can be observed in Figure 1.

Figure 1
The sequence of the treatments



FINDINGS AND DISCUSSION

The Use of Self-Made Vocabulary Cards and Review Assessments

With the reference of several key points for effective vocabulary cards proposed by Nation (2001), each of the vocabulary card contained, on one side, an English word or phrase, its phonetic transcriptions, the part of speech, the picture, and the use of the word or phrase in a sentence, and the Indonesian meaning on the other side to promote retrieval when learners were studying it (Nation, 2001).

The use of pictures in the cards was based on the idea that they could help learners understand the concept of unknown or unfamiliar words and help make them more memorable (Alqahtani, 2015; Wamalwa & Wamalwa, 2014). Besides, with regard to Benny, the student with autism in this class, the requirement of pictures in the vocabulary cards was meant to optimise his visual processing strength typical in autistic learners (Lindsey-Glenn & Gentry, 2008; Padmadewi & Artini, 2017; Phillips, 2016). The sample layout can be seen in Figure 2, whilst the sample of the contents of each vocabulary card Benny made could be seen in Figure 3.

Figure 2
The layout of learners' vocabulary cards (left: side one, right: side two)

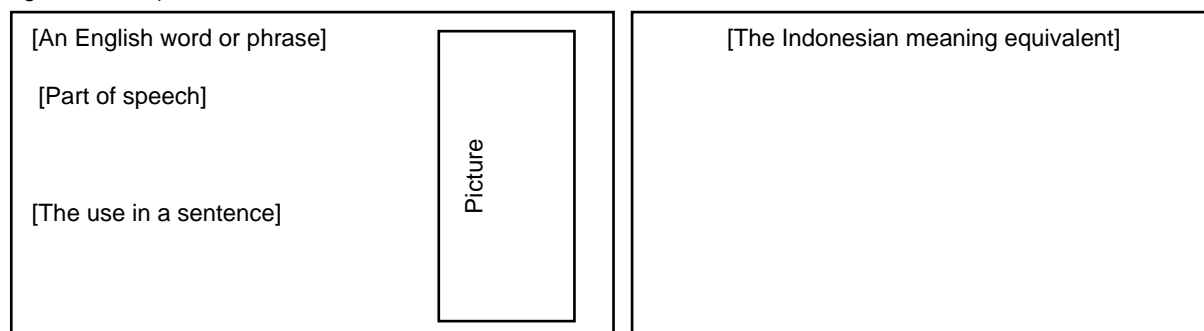
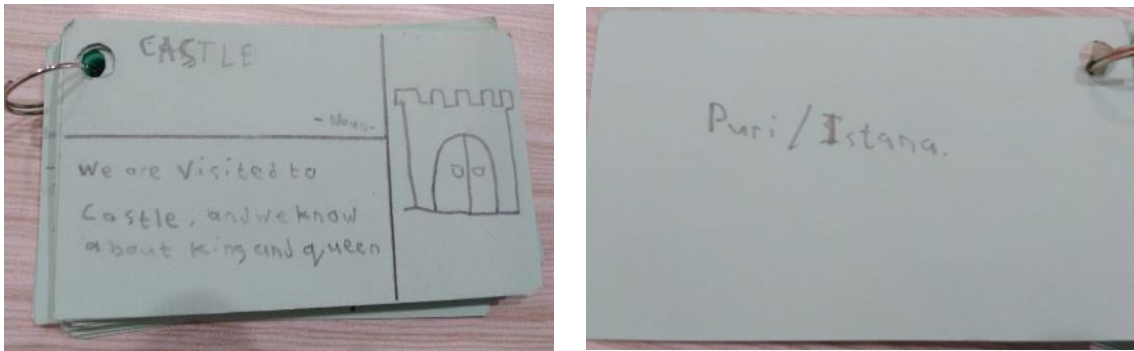


Figure 3
A sample of Benny's vocabulary cards (left: side one, right: side two)



In general, Benny showed a satisfying performance in terms of his diligence in making vocabulary cards. He started with ten cards in the first review assessment on 3 September 2018 because it was the default number of cards required from all students. At the end of the assessment, I praised him on his mastery on the cards and asked him whether he felt overwhelmed with the number. He willingly challenged himself to make twenty cards (doubled the number his classmates should make). I praised him for his bravery on stretching his limit and gave him feedback not to make cards from red papers because they were slightly difficult to read.

At the end of the semester, he obtained 95.83/100 for the category of completeness of vocabulary cards, which means that he, throughout the semester, had made his vocabulary cards based on the previously set criteria (see Figure 2) and had never missed any review assessments on which the cards' completeness was also assessed. His score was slightly higher than the class mean score, on 92.77/100, which may imply that despite his making more cards than any of his classmates, he could show diligence, consistency, and persistence. The cards he had made during the semester could be observed in Figure 4.

Figure 4
Benny's vocabulary cards throughout the semester

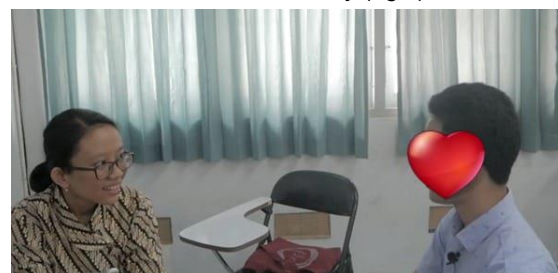


Benny's own volition in increasing the number of vocabulary cards he made is worth commenting.

Despite many experts' reiteration that autistic learners are likely to have little experience in "expressing personal preferences, making decisions based on those preferences, and assuming personal responsibility" (Dodge et al., 2014, p. 28), Benny to some extents clearly exhibited his strong will to succeed in this class and a sense of responsibility to fulfil his commitment. This attitude may be attributed to his being a high functioning autistic learner and his sensing the teacher's encouragement through the differentiated instruction.

Furthermore, the review assessments conducted six times during the semester were intended to assess learners' mastery of their self-made vocabulary cards on the given topics orally. Here, students handed their cards to me and I assessed whether they mastered the words they themselves had written. This assessment included the English equivalents of Indonesian words, their part of speech and their use in sentences based on the part of speech. For example, the word "coach (verb)" means "to train". Hence, an example of correct uses in sentences would be "Guardiola coached Barcelona several years ago". "Guardiola was Barcelona's coach" would be an incorrect example as the word "coach" in this sentence is a noun. Students making sentences using the target word allowed them to make a connection between the target word and their experiences and to train them to use the target word in communication (Sheridan & Markslag, 2017). The sample sentences students made orally in the review assessments did not have to be the same as those written in their cards. Figure 5 shows the situation of the second review assessment with Benny on 17 September 2018.

Figure 5
Review Assessment 2 with Benny (right)

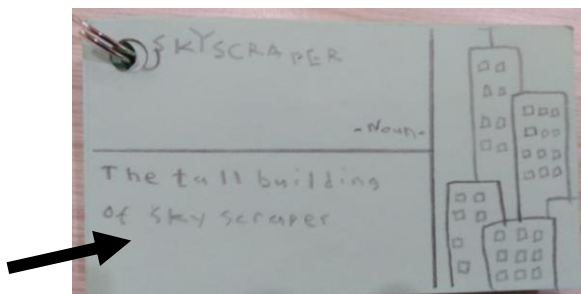


With the procedure of review assessments aforementioned, Benny seemed to have unstable, yet generally improving performance during the semester. He seemed to have a very high spirit in increasing the number of vocabulary cards he had to make. He was very enthusiastic about proposing a higher number of cards every other week. In terms of his mastery on his cards, however, some points need to be commented.

First, generally, he exhibited excellent memory of words he wrote in his cards. This was the same as an autistic participant in Ting's (2014) study in Taiwan in which he could memorise all the spellings of the given words without mistake, amplifying the reiteration of the superior memory of many autistic learners (see also Yahya et al., 2013a). In the present study, in all review assessments but the fourth and the fifth, Benny could state all of the English equivalents of the Indonesian words he wrote and the parts of speech. He, however, did not seem to be well-prepared in the fourth assessment, did not quite finish the previously promised thirty cards, and struggled with the meaning equivalents and parts of speech he was generally good at previously. He insisted himself make forty cards in the fifth assessment despite my warning that it might be overwhelming. He did struggle in finding the English equivalents of some words in his cards, but his performance was, in general, better than the previous one and he seemed to be more prepared. In the last assessment, he committed himself to memorise forty words and he performed quite well especially in meaning equivalents and parts of speech. This result may confirm Sheridan's and Markslag's (2017) idea that even though managing vocabulary cards is time-consuming and labour-intensive, it contributes to the amount of deep processing attributed to eventual vocabulary retention, in this case, seen from Benny's good performance.

Secondly, Benny had difficulty in putting words or phrases he wrote in the contexts or sentences. This could be seen from his vocabulary card sample in Figure 6.

Figure 6
Benny's card sample showing serious grammatical mistakes



As can be seen in Figure 6, Benny wrote "The tall building of skyscraper", a phrase with a rather confusing meaning. He probably meant to write "The tall building

is a skyscraper." There were other examples in which he wrote confusing "sentences" in his cards and these included "The boy is very silliness," "He is so wildness," "In the body is that ribs," and "My armpit is a smell awful." This finding was not surprising as learners with autism generally display deficiencies in organization and coherence whilst speaking or writing (Vacca, 2007) let alone in their L2.

Due to his inability in formulating grammatical and comprehensible sentences in his vocabulary cards, during the review assessments, I helped him formulate sentences by orally prompting in the Indonesian language and give instant error corrections. The following excerpt was taken from the recorded second review assessment in which I, the teacher, assessed Benny's mastery on his cards on 17 September 2018.

Teacher : Now [make a sentence using] '*menara*' (meaning: tower).
Benny : They are visit in the tower.
Teacher : They... (*giving an instant correction*)
Benny : They (*repeating the teacher*)
Teacher : Visit...
Benny : They visit... the tower.
Teacher : Okay. Now [make a sentence using] '*istana/puri*' (meaning: castle)
Benny : The king and the queen... (*thinking*)
Teacher : Very good (*giving encouragement*)
Benny : to coming in the castle.
Teacher : The king and the queen blah blah blah coming... *kurang apa* (meaning: what does it lack?)
Benny : Mmm... 'are'
Teacher : Good. Please repeat.
Benny : The king and the queen are the...
Teacher : are... (*giving an instant correction*)
Benny : are coming to the castle.
Teacher : Very good.

As seen from the later part of the excerpt, Benny could finally formulate a grammatical and comprehensible sentence "The king and the queen are coming to the castle" only after receiving several verbal prompts in the Indonesian language and some verbal encouragements. He could also formulate such sentences as "They still have childish nature," "The air is inside the windpipe," and "There is bleeding in the nostrils" among others after receiving such help. Regarding the use of the Indonesian language, this may suggest the positive effects of using L1 for spoken instructions for students with autism, who have impairment in communication and comprehension (Seltzer et al., 2004), as they generally understand auditory instructions less than their regular listeners (Padmadewi & Artini, 2017; Yahya et al., 2013b). Even though not specifically referring to learners with special needs, Swain and Lapkin (2013) asserted that the use of L1 in L2 classrooms could help learners when they are dealing with complex ideas. Besides, teachers teaching students with special needs in Malaysia also reported the effectiveness of the use of Malay (their autistic students' L1) in helping these students learn in English class (Yahya et al., 2013b), implying the

prevalence of L1 use to teach L2 to students with autism. Furthermore, regarding the immediate correction on Benny's errors in formulating his sentences, whilst it is fully acknowledged that immediate error correction has been reported to instil language learners' anxiety inhibiting learning (Subekti, 2018, 2020), teachers' immediate error correction may also contribute positively to autistic learners' language development (see also Yahya et al., 2013a). As seen in the excerpt, the latter was likely the case. However, Yahya et al. (2013a) asserted, this error correction should be conveyed in a positive and warm attitude to help autistic learners feel secure necessary for learning to take place.

Benny scored quite satisfactorily in the spoken review assessments indicating his fair mastery on his vocabulary cards. The mean of his score was higher than that of the class despite his making more cards than his classmates in each occasion. He obtained 82.83/100 whilst the class mean score was 76.79. This achievement indicated that the treatments of giving him the freedom to choose the number of words he could learn was quite successful in driving him to focus his attention on things he could handle and thus perform well because of his more intense preparation. His scores and the corresponding mean scores of the class can be observed in Table 1.

Table 1

Benny's six review assessment results on his mastery of vocabulary cards

No	Dates	Topics	Names of assessment	Benny's cards	Benny's scores	Class mean score
1	3 Sept 2018	Daily Routines	Review Assessment 1	10 cards	100	79
2	17 Sept 2018	Around the House	Review Assessment 2	20 cards	80	85.1
3	1 Oct 2018	Body and Movement	Review Assessment 3	25 cards	90	78.3
4	29 Oct 2018	Education and Career	Review Assessment 4	30 cards	67	76.8
5	12 Nov 2018	Sport and Leisure	Review Assessment 5	40 cards	60	78.1
6	26 Nov 2018	Communication and Technology	Review Assessment 6	40 cards	100	79.9
-	-		Mean scores	-	82.83	76.79

Differentiated Assessments Based on the Vocabulary Cards

Benny's vocabulary cards were not only assessed in the six review assessments aforementioned, but also in three differentiated assessments, five quizzes, the mid-semester assessment, and the final assessment. As previously mentioned, Benny could only obtain the maximum score of 64/100 for these assessments. Unlike his classmates who did 100-item matching test in each of the assessment, Benny did matching tests, materials of which corresponded to the materials which he made previously in his vocabulary cards and which were assessed in review assessments. This was what Nunan (2004) referred to as recycling the language. Based on the idea that repetition leads to better understanding (Nunan, 2004), recycling the materials

Benny wrote in his cards for all these assessments was aimed at maximising his learning opportunity, albeit limited in quantity, considering his limited ability to cope with the class "regular" demands. Benny's scores, despite all being under the class mean scores, indicated that he could achieve almost perfect attainment based on the standard required from him. He scored perfectly in Quiz 1, Quiz 3, Quiz 5, and the final assessment, which may suggest that he really was showing his best efforts to perform well in class. Table 2 shows his achievements in the assessments.

Table 2
Benny's scores in differentiated quizzes, mid-semester and final assessments

No	Names of assessment	Dates	Number items/words	of Benny's scores	Class mean scores
1	Quiz 1	10 Sept 2018	10	64	72.86
2	Quiz 2	24 Sept 2018	20	56.32	68.87
3	Mid-Semester Assessment	8 Oct 2018	55	58.88	87.86
4	Quiz 3	5 Nov 2018	25	64	59.66
5	Quiz 4	19 Nov 2018	30	51.2	75.62
6	Quiz 5	3 Dec 2018	40	64	72.76
7	Final Assessment	10 Dec 2018	60	64	73.18

Despite being differentiated in terms of the maximum score he could obtain, Benny's achievement improved much compared to his achievement in the same class he took the previous year in which he always scored lower than 30/100 in such assessments. This improvement could indicate that Benny could learn more words and learn them better when he was given more opportunities to focus his attention more specifically to words he himself wanted to learn more and to sharpen his knowledge on those words through repetitions manifested in assessments to boost his confidence as well as motivation to perform well in his vocabulary learning. During the process in which vocabulary cards and differentiated assessments were implemented to facilitate his vocabulary learning, Benny may steadily develop a sense of achievement and "I can do it" attitude, which may also contribute to the improvement in his vocabulary mastery.

As the biggest responsibility in widening one's vocabulary mastery is on the individual himself and it requires one's own interest and motivation (Alqahtani, 2015), teachers providing assessments that could channel and boost the motivation and interest of learners with autism is considered strategic and desirable. Teachers expecting too much too soon from such learners may not be working. Here, teachers' patience and step-by-step guidance, optimising autistic learners' potentials and interests and getting around their limitations, are paramount in facilitating autistic learners in their L2 learning.

CONCLUSION

The results of the treatments for the student with autism reported in this study may suggest some important points. First, learners with autism need teachers who are supportive, understanding their limitations and at the same time giving them opportunities to experience the process of learning in the "best" possible ways in accordance with their conditions optimising their potentials and getting around their deficiencies (see also Yahya et al., 2013b). Hence, any differentiated instruction given to autistic learners should not solely be viewed as a way to make them pass their classes they

otherwise could not pass. Furthermore, learners with autism can also be taught to assume certain responsibility or commitment. Teachers' support giving them reassurance can play a critical role in building their confidence to fulfil certain commitments they have made previously. Additionally, that the learner participant's mother responded positively to the teaching innovations/treatments given to him, as previously mentioned, may indicate parental support, acknowledging the uniqueness of learners with special needs and at the same time trying any possible ways to help them learn better. This openness could have a critical role as well.

Despite the possible contributions of this study in the field of education for learners with autism in the ESL setting, there are some possible limitations that should be acknowledged. First, the categorisation of the student participant with autism into a high functioning autistic learner was based on my own observation as a language teacher, a layperson in psychiatry, based on exhibited recurring observable behaviours of the autistic learner. Hence, this categorisation may not be as accurate as that made by professionals in the field of psychiatry. Secondly, I, before conducting this study, had very little experience in dealing with learners with autism other than teaching the student participant in the previous semester. Hence, the treatments I did may to some extents be bounded to have some limitations attributed to my little experience in the field. The differentiation in terms of the maximum score the autistic learner could obtain in certain assessments, even though could be considered helpful in helping him obtain higher scores he otherwise could not obtain, could also be seen as a weak point of the treatments because it may suggest a certain degree of discrimination which is obviously against the principle of inclusiveness (Chan & Lo, 2016).

Furthermore, there are several suggestions for future studies on learners with autism in the field of ESL teaching in the Indonesian context. First, despite the notable improvement on the autistic learner's achievement in various class assessments seen in this study, the treatments conducted had not optimally

helped him use words he had known in grammatical and comprehensible English sentences. Hence, conducting a further study on differentiated instruction specific in Grammar classes where he or other autistic learners could learn how to structure ideas in more comprehensible ways can be worthwhile. Secondly, investigating the perceptions and beliefs of classmates of learners with autism in an inclusive classroom may also yield interesting findings as classmates could play an important part in helping learners with autism to succeed in their learning (Kavanagh, 2018). Finally, considering the critical role of teachers in inclusive classrooms in affecting the quality of instruction (Cassady, 2011; Yahya et al., 2013b) and the rarity of empirical studies on teachers' beliefs and practices in teaching students with autism in the ESL setting, Indonesian ESL practitioners are encouraged to investigate various aspects in the field further.

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