CHAPTER II
REVIEW OF RELATED LITERATURE

A. Theoretical Description

1. Vocabulary

The English language teaching environment varies around the world. A good command of English is an entry requirement for higher education in the global market and English provides a competitive advantage for its users. Teaching basic English to students with autism is a challenge for teachers. This can be facilitated by the innovative use of digital media by teachers and parents with proper assistance.

Vocabulary is one of the important aspects of learning a foreign language, especially English. In learning English vocabulary is needed in all four skills, namely reading, writing, listening, and speaking. These four skills are basic skills or basic English that must be mastered in learning English. Lack of vocabulary can hinder the learning process of students so that they will be hampered when learning it[1]. Vocabulary can be used as the main support for students in learning basic English.

Dakhi agrees with Thornbury and remarks that zero can be carried out without vocabulary because someone can say little with grammar but anyone cannot say almost everything without vocabulary[2]. According to Kaharruddin, vocabulary is the foundation of communication skills because it is considered a tool that can describe a thought, expression, translation, and even interpretation[3].

---

[1] Joni Tzuchen Tang, 'Comparative Study of Game-Based Learning on Preschoolers' English Vocabulary Acquisition in Taiwan', *Interactive Learning Environments* 31, no. 4 (19 May 2023): 1958–73, https://doi.org/10.1080/10494820.2020.1865406.

[2] Wa Saripah, 'IMPROVING STUDENTS' VOCABULARY THROUGH PICTURE CARDS', *VISION JOURNAL Http://Jurnaltarbiyah.Uinsu.Ac.Id/Vision*, 2022.

[3] Saripah.

Vocabulary is an important thing to know first so that students will understand the learning delivered[4]. When students do not understand even a little vocabulary, then they will have difficulties in various things, especially in speaking skills, the more vocabulary students have, the better they learn[5].

According to Wardani, vocabulary is an important aspect of language because it appears in every language skill including listening, speaking, reading, and writing skills[6]. Vocabulary is a major factor in a language because it is needed in speaking, reading, and writing. It can be interpreted that a person's low ability in language is closely related to the amount of vocabulary he has. Based on the theories above, it can be concluded that vocabulary is all the words in something that can be heard, spoken, read, and written that are known by an individual in mastering a language.

2. Pronunciation

Pronunciation is one of the important aspects to be mastered by students in learning a foreign language. Pronunciation is how to pronounce or pronounce vocabulary in English. Pronunciation is the way a word is pronounced. Pronunciation is no more an optimal addition for learners than grammar, vocabulary, or other aspects of language[7]. Kristina et al argue that pronunciation is the act or way of pronouncing words in speech, in other words it can also be said that it is a way of saying a word, especially a way that is generally accepted or understood[8]. In a sense, pronunciation

---

[4] Mohfareh Alqahtani, 'The Importance of Vocabulary in Language Learning and How to Be Taught', *International Journal of Teaching and Education*, 2015.

[5] Mohfareh Alqahtani.

[6] Saripah, 'IMPROVING STUDENTS' VOCABULARY THROUGH PICTURE CARDS'.

[7] Cambridge Dictionary, 'Pronunciation', accessed 24 October 2023, https://dictionary.cambridge.org/dictionary/english/pronunciation ,.

[8] M. Fadhly Farhy Abbas and Vina Fathira, 'IMPLEMENTATION OF ANDROID APPLICATION TO SOLVE THE STUDENTS� PRONUNCIATION OF ENDING �ED', *English Review: Journal of English Education* 8, no. 2 (2 July 2020): 101, https://doi.org/10.25134/erjee.v8i2.2648.

includes the production and reception of speech sounds and the achievement of meaning. Hornby states that pronunciation is the way language is spoken, the way words are spoken, and the way a person pronounces the words of a language[9].

Kustanti argues that pronunciation is the correct pronunciation of words or sounds using the mouth organs[10]. As the opinion of Ramelan, the elements of pronunciation are divided into two, namely[11]:

1. Segmental

Segmental is an element of pronunciation where sounds are released sequentially. Segmental features are divided into several more parts, namely vowels, consonants, clusters, and diphthongs where each of these types is distinguished based on its function in use and how the sound is produced[12].

a. Vowels

Vowels are a set of sounds whose air comes out of the mouth without interruption and which occur in the same position in words that consist of a single vowel or can also be a diphthong, which is included in the vowel category including[13]:

---

[9] Nurul Latifatul Azizah, Tiyas Saputri, and Syiddatul Budury, 'The Effect of Family Background on Autism Spectrum Disorder Student's Pronunciation Mastery: A Case Study', *Bali Medical Journal*, n.d.

[10] D Kustanti, 'Problematika Budaya Berbicara Bahasa Inggris', *Jurnal Al-Tsaqafa*, 2017.

[11] Laelatul Ma'lah, 'PRONUNCIATION PROBLEMS: A STUDY OF INDONESIAN EFL STUDENTS AT STATE JUNIOR HIGH SCHOOL 2 KALIGONDANG IN THE ACADEMIC YEAR OF 2015/2016', *Universitas Muhammadiyah Purwokerto*, 2016.

[12] Laelatul Ma'lah.

[13] Laelatul Ma'lah.

Table 2. 1 Vowels in English

No.	Vowels	Example
1.	/ iː /	Kiwi
2.	/ ɪ /	Pig
3.	/ ʊ /	Cow
4.	/ uː /	Blue
5.	/ e /	Lemon
6.	/ ə /	Silver
7.	/ ɔː /	Daughter
8.	/ æ /	Crab
9.	/ ʌ /	Uncle
10.	/ ɑː /	Arm
11.	/ ɒ /	Fox

Table 2. 2 Diphthong in English

No.	Diphthong	Example
1.	/ eɪ /	Grey
2.	/ ɔɪ /	Oyster
3.	/ aɪ /	Tiger
4.	/ ɪə /	Violet
5.	/ ʊə /	Flower
6.	/ eə /	Bear
7.	/ əʊ /	Nose
8.	/ aʊ /	Brown

b. Consonant

Consonants are a set of sounds in which air from the lungs is seriously obstructed in the mouth. Consonants can also be interpreted as a sound where the spoken word is stopped or obstructed in the mouth which is divided into 6 parts, namely plosive, fricative, affricative, nasal, lateral, and glide consonant[14].

---

[14] Laelatul Ma'lah.

Table 2. 3 Consonant in English

No	Consonant	Example	Consonant	Example
1.	/ p /	*Pigeon*	/ s /	*Seal*
2.	/ b /	*Bear*	/ z /	*Zebra*
3.	/ t /	*Turtle*	/ ʃ /	*Shark*
4.	/ d /	*Dog*	/ ʒ /	*Beige*
5.	/ k /	*Cat*	/ h /	*Horse*
6.	/ g /	*Goat*	/ m /	*Monkey*
7.	/ tʃ /	*Chicken*	/ n /	*Coconut*
8.	/ dʒ /	*Juice*	/ ŋ /	*Kangaroo*
9.	/ f /	*Frog*	/ l /	*Lime*
10.	/ v /	*Violet*	/ r /	*Red*
11.	/ θ /	*Thunder*	/ j /	*Yellow*
12.	/ ð /	*Brother*	/ w /	*Wolf*

2. Supra segmental

Supra segmental pronunciation is divided into several parts including:

a. Stress

Stress or emphasis is more prominent than the surrounding syllables. It is generally agreed that stress (or prominence) can be characterised by three variables: length, pitch, and loudness[15].

b. Intonation

According to Beare, intonation is a punctuation mark that marks the end of a sentence and also has a certain intonation. Intonation means the rise and fall of the voice when speaking[16].

c. Rhythm

Carney says that rhythm is cadence in language. There is a tendency in English for strong beats to fall

---

[15] Nasution, E. O, Nelda, and Tanjung S, 'An Analysis of Student' Error In Pronunciation Practice (A Study At The Fifth Semester Of English Department Institut Pendidikan)', *Jurnal Liner, Institut Pendidikan Tapanuli Selatan*, n.d.

[16] Dhea Agisnandea, 'AN ERROR ANALYSIS OF STUDENTS' PRONUNCIATION SILENT LETTER AT THE SECOND SEMESTER OF ENGLISH EDUCATION RADEN INTAN STATE ISLAMIC UNIVERSITY OF LAMPUNG IN ACADEMIC YEAR OF 2019/2020', *Lampung: Repository.Radenintan.Ac.Id.*, 2021.

on nouns, verbs, adjectives, and adverbs and weak beats to fall on prepositions, articles, and pronouns[17].

According to Kelly, a consideration of learners' pronunciation errors and how these can inhibit successful communication is a useful basis on which to assess why it is important to deal with pronunciation in the classroom[18]. When a learner says, for example, soap in a situation such as a restaurant where they should have said soup, the inaccurate production of a phoneme can lead to misunderstanding (at least on the part of the waitress). A learner who consistently mispronounces a range of phonemes can be extremely difficult for a speaker from another language community to understand. This can be very frustrating for learners who may have a good command of grammar and lexis but have difficulty in understanding and being understood by a native speaker.

By learning pronunciation, it will make it easier for students to communicate, because if there is an error when pronouncing vocabulary, it will change the meaning of the vocabulary. In addition, mispronunciation will also cause misunderstanding in the interlocutor.

To be able to pronounce pronunciation correctly, teachers must teach and help students to pronounce correctly. Sometimes students experience difficulties so that they cannot imitate the pronunciation of the teacher. Such errors are unavoidable given the background of students who are just learning basic English, therefore the teacher must provide feedback on students' pronunciation errors. The feedback can be used as a way to explain to students so that they can pay attention to what they say. Teachers can also give some exercises which lead students to learn pronunciation.

---

[17] Agisnandea.

[18] Adam Wojciechowski and Raed Al-Musawi, 'Assisstive Technology Application for Enhancing Social and Language Skills of Young Children with Autism', *Multimedia Tools and Applications* 76, no. 4 (February 2017): 5419–39, https://doi.org/10.1007/s11042-016-3995-9.

3. Autism Student

Autism is a biological disorder in the joints. Currently, autism is categorised as a "biological disorder", meaning that autism is not a psychological disorder[19].

(DR. Hj Dasmiah, S.Pd., 2021) Autism is a comprehensive developmental disorder that results in barriers to skills, socialisation, communication and behaviour[20]. The disorder can be divided into mild and severe levels, with symptoms generally appearing before the child reaches the age of three. Autism is a pervasive developmental disorder where one of the systems in the brain does not function properly[21].

ASD or Autism Spectrum Disorder are children who have special needs that make it difficult for them to enter regular schools like normal children or students unless the child only has mild ASD symptoms[22]. ASD conditions have a wide spectrum that makes it a barrier for them, both from the mildest to the most severe range. Some ASD sufferers have delays in intellectual development so they must be given more appropriate education such as placed in special schools or inclusive schools provided by an institution so that they get the right treatment[23].

Of all children with ASD, only about 12% of ASD students are fully educated in mainstream or regular schools[24]. With the characteristics and conditions they have

---

[19] Septy Nurfadillah et al., 'ANALISIS KARAKTERISTIK ANAK BERKEBUTUHAN KHUSUS (AUTISME) PADA SISWA SD NEGERI SUDIMARA TIMUR 2 KOTA TANGERANG', *TSAQFAH Jurnal Penelitian Guru Indonesia* 2 (2022).

[20] Hj. Dasmiah, 'Model Manajemen Pelayanan Pendidikan Anak Berkebutuhan Khusus (ABK)', *Yogyakarta: CV Budi Utama*, n.d.

[21] Septy Nurfadhillah et al., 'ANALISIS KARAKTERISTIK ANAK BERKEBUTUHAN KHUSUS (AUTISME) DI SEKOLAH INKLUSI SDN CIPONDOH 3 KOTA', *BINTANG : Jurnal Pendidikan Dan Sains* 3 (n.d.).

[22] Makin, Hill, and Pellicano, 'The Primary-to-Secondary School Transition for Children on The Autism Spectrum: A Multi-Informant Mixed-Methods Study'.

[23] Dr. Alok Sharma, M.s, M.ch, *Parent and Teacher Guide Book for Autism*, Ssecond Edition (Mumbai: Surekha Press, 2015).

[24] Mazin T. Alqhazo, Laila S. Hatamleh, and Mahmoud Bashtawi, 'Phonological and Lexical Abilities of Jordanian Children with Autism', *Applied*

14

such as the lack of ability to communicate in a two-way manner, difficulty socialising, and rigid behaviour, they become difficult when they have to be in an environment that is not following their character so that it becomes difficult to adjust to learning[25].

According to Jacquie S. Mace, people with ASD have the following characteristics[26]:

a. Social communication/interaction behaviours
   - Makes little or no consistent eye contact.
   - Does not look and listen to the other person.
   - Rarely shares items or activities with those around them.
   - Fails or is slow to respond to someone calling their names.
   - Difficulty in two-way communication.
   - Likes to talk about their favourite topics without caring that the other person is interested in what they are talking about and does not even give them a chance to speak.
   - When speaking, facial expressions and gestures are sometimes inappropriate.
   - Has an unusual tone of speech.
   - Has difficulty in understanding other people's actions.

b. Restrictive/repetitive behaviours
   - Repeats certain behaviours, such as words, phrases, or behaviours.
   - Has a strong interest in a particular topic such as numbers, details, etc.
   - Will get upset if there is a change in their routine.
   - More sensitive to sensory issues such as light, noise, temperature, or clothing.
   - ASD sufferers may experience sleep problems and irritability.

Neuropsychology: Child 9, no. 2 (2 April 2020): 116–24, https://doi.org/10.1080/21622965.2018.1534690.

[25] Jacquie S. Mace, *The Little Book of Autism Resources* (Bloomigton: Autism McLean, 2021).

[26] Mace.

From the presence of these characteristic signs, ASD students have several advantages which include[27]:

- Able to learn something they like in detail and remember it for a long time.
- Strong visual and auditory learners.
- Excelling in maths, art, music or science.

4. Preschool English Game Application

The pace of technological development in this digital era is very influential in various fields of life, one of which is in the educational field. With this technology, everyone can do learning activities other than at school or a course, because now there are even applications that provide online course services without having to meet face to face[28]. In addition, learning can also be done through a game. The main function of games is as a medium to eliminate boredom or to pass the time, but on the other hand, there are many game applications made for educational purposes as learning media[29]. One of these game applications is Preschool English which can be used as a medium for learning vocabulary and pronunciation in basic English.

Preschool English game application is a free application that can be downloaded on Play Store on Android phones. This application is an application intended for preschool students or beginners. The features in this application can be used to improve vocabulary, listening, and reading skills for students with audio and image support that will attract students' attention. 12 types of basic vocabulary can be accessed for free in this application, including vocabulary about animals, our body, fruits and vegetables, numbers and colours, our house, jobs, feelings

---

[27] Mace.

[28] Petrus sokibi Sukanto and Ady Widjaja, 'GAME EDUKASI PEMBELAJARAN BAHASA INGGRIS BERBASIS ANDROID UNTUK SDIT SABILUL QUR'AN CENDIKIA', *Jurnal Bahasa Rupa* 3, no. 2 (17 April 2020): 83–94, https://doi.org/10.31598/bahasarupa.v3i2.440.

[29] Abi Febriyanto, Untoro Apsiswanto, and Usep Saprudin, 'APLIKASI GAME EDUKASI BERBASIS ANDROID SEBAGAI MEDIA PEMBELAJARAN ANAK BALITA', *International Research on Big-Data and Computer Technology: I-Robot* 3, no. 1 (1 August 2019), https://doi.org/10.53514/ir.v3i1.81.

and emotions, foods and drinks, weather, vehicles, classroom, and family. In addition to a variety of vocabulary topics, this application also features audio that pronounces the pronunciation correctly so that users can imitate it.

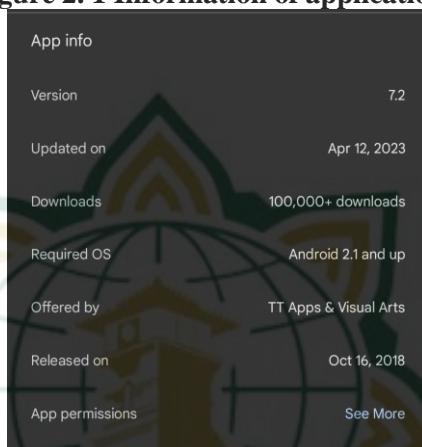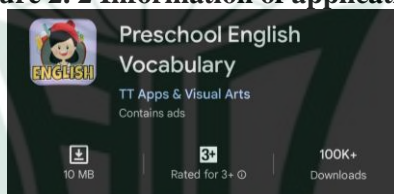**Figure 2. 1 Information of application**


Figure 2. 2 Information of application

a. How to install:
   1. Open the Play Store application, then type "Preschool English Vocabulary" in the search field so that many applications related to the search will appear.
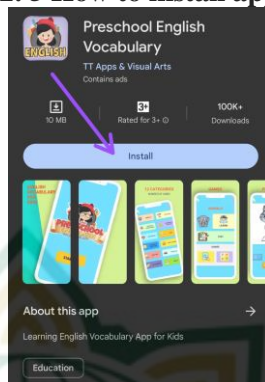
Figure 2. 3 How to install application

2. Search for the application according to the name that has been searched with the image as follows:

Figure 2. 4 Game Application
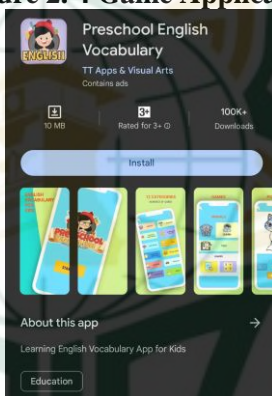
3. Download the application and install it on mobile phone.

18

Figure 2. 5 How to install application

4. After the application is installed, open the application and the application can be run immediately without having to log in first.

Figure 2. 6 How to install application

b. How to use:
   1. Open the Preschool English Vocabulary game application that has been installed on your mobile phone.

Figure 2. 7 How to use application

2. Click the start menu, and then the application can be used immediately without having to register. After that, several vocabulary options will appear, including animals, our body, fruits and vegetables, numbers and colours, our house, jobs, feelings and emotions, foods and drinks, weather, vehicles, classroom, and family.

Figure 2. 8 How to use application

Figure 2. 9 Game Application Content

**Figure 2. 10 Game Application Content**

3. Select the vocabulary to be learnt and played with, for example, animals. After opening, several more menus will appear, namely the 'learn' menu for learning vocabulary and pronunciation accompanied by pictures to make it easier for students, the 'quiz' menu which can be used to evaluate the vocabulary that students have previously obtained and the "games" menu which contains games about vocabulary that have been taught in the application.

Figure 2. 11 Game Application Content

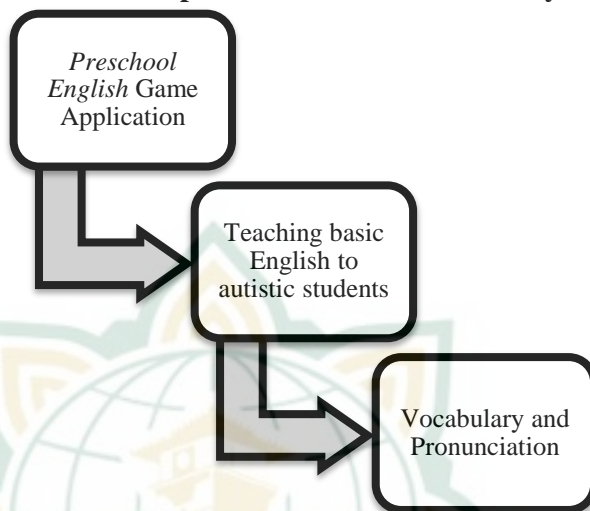**Figure 2. 12 Game Application Content**

22
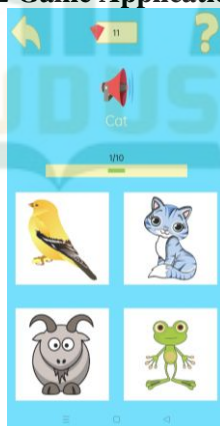
B. Theoretical framework

As explained in the literature review, Autism is a neurological disorder that causes sufferers to be unable to interact socially and communicate[30]. In the learning process, they will easily feel bored and saturated if the material or media used by the teacher is not interesting or not their interests, especially with learning English as a foreign language knowledge. This boredom and saturation make them not focus on learning and easily distracted by other things such as playing with objects around them without paying attention to the teacher who is teaching.

ASD students will feel excited when they find something interesting and find out what catches their attention. The more interesting the thing, the higher curiosity about it. Therefore, supporting learning for ASD students also requires variety so that it can fulfill the learning targets of the existing curriculum. The support can be in the form of interesting classroom arrangements or the use of varied learning media every day. In addition to learning media made manually, teachers can also utilize technology as a learning support for ASD students. The use of digital games such as the Preschool English application can be used as a medium to support English learning, especially in mastering English reading, as illustrated in chart 1 below:

---

[30] Dr. Alok Sharma, M.s, M.ch, *Parent and Teacher Guide Book for Autism*.

Chart 2. 1 Conceptual Framework of the Study

```
┌─────────────────┐
│   Preschool     │
│  English Game   │
│  Application    │
└─────────────────┘
         │
         ▼
      ┌─────────────────┐
      │  Teaching basic │
      │   English to    │
      │ autistic students│
      └─────────────────┘
               │
               ▼
            ┌─────────────────┐
            │ Vocabulary and  │
            │  Pronunciation  │
            └─────────────────┘
```

The chart above illustrates how Preschool English game application can be applied as one of the media in learning basic English for ASD students. Preschool English game application has basic English learning features that include a variety of vocabulary with pictures so that students can more easily remember the vocabulary that has been learned. In addition, there is also a listening feature to find out the correct pronunciation related to the vocabulary in the application. These features will help ASD students learn basic English without seeing the deficiencies they have so that they can minimise the occurrence of errors in learning English at a later stage. The use of this application is of course with assistance from teachers or parents because students with ASD should not operate gadgets. After all, it will interfere with their concentration.

C. Review of Previous Study

There are previous related studies that can support this research based the title variable;

Table 2. 4 Similarity and Difference of Previous Study

No.	Researcher & Title	Content	Similarities	Differences
1.	Saadeh Z. Sweidan, Haneen Salameh, Razan Zakarneh & Khalid A. Darabkh 2019 Autistic Innovative Assistant (AIA): an Android application for Arabic autism children[31]	The researcher introduced (Autistic Innovative Assistant) AIA as an android application developed for autistic children in the Arab world that can help them in overcoming learning and social difficulties which includes five main categories namely "Numbers", "Letters", "Vocabulary", "Social	The existing equation in this study is the use of android applications used as learning media innovations in autistic children.	In previous research, the application used was Autistic Innovative Assistant (AIA) as a learning media for autistic children in necessary linguistic and mathematical basics in addition to improving their social skills, while in this study, researchers used the Preschool English game application as a learning

---

[31] Saadeh Z. Sweidan et al., 'Autistic Innovative Assistant (AIA): An Android Application for Arabic Autism Children', *Interactive Learning Environments*, 2019.

		Skills" and "Relaxation and anger management ".		media to introduce basic English to autistic children using the features in it, namely vocabulary and pronunciatio n.
2.	Dian Arjuni Maya Pani 2017 The Implementatio n of Direct Method Assisted By Google Translate Voice To Improve Students' Pronunciation	The researcher used the voice feature on Google Translate as a medium to improve students' pronunciatio n and describe students' activities in learning by implementin g classroom action research. In the study, the researcher mentioned that teaching using Google Translate's voice-assisted direct	This research with previous research both use digital media to improve pronunciatio n in students. In addition, researcher also only focus on pronunciatio n skills by conducting class action research.	Previous researcher used digital media, namely Google Translate Voice to correct the pronunciatio n spoken by students, while in this study the research focus on vocabulary and pronunciatio n in autistic students using the Preshool English game application.

26

		method can improve students' pronunciatio n and voice makes students feel at home, happy, comfortable, and increase self-confidence		
3.	Iman Santoso and Andriyadi 2019 The Use Of My Dictionary Application To Improve Students' Vocabulary Mastery[32]	The researcher stated that the use of My Dictionary App as a learning media can develop and improve students' vocabulary skills compared to using the lecture method.	The similarity between my research and previous research is the use of digital media as a learning medium in developing vocabulary skills in students.	Previous research only focused on improving and developing vocabulary in students, while I tried to use the features in the Preschool English game application to introduce correct pronunciatio n to autistic students.
4.	Bashori,	In this study,	The use of	In the

---

[32] Iman Santoso and Andriyadi Andriyadi, 'THE USE OF MY DICTIONARY APPLICATION TO IMPROVE STUDENTS' VOCABULARY MASTERY', *ELTIN JOURNAL, Journal of English Language Teaching in Indonesia* 7, no. 1 (17 April 2019): 35, https://doi.org/10.22460/eltin.v7i1.p35-42.

	Muzakki, Roeland van Hout, Helmer Strik, and Catia Cucchiarini 2022 'Look, I Can Speak Correctly': Learning Vocabulary and Pronunciation Through Websites Eqquiped With Automatic Speech Recognition Technology'[33]	the researcher used 2 digital media namely I Love Indonesia (ILI) and NovoLearning (NOVO) which successfully helped Indonesian high school students improve their knowledge of pronunciation skills and skills that have been targeted by the researcher. Both media have different feedback namely Automatic Speech Recognition (ASR) so	digital media to increase the mastery of vocabulary and pronunciation in students.	previous study, the researcher used two digital media to improve students' knowledge of vocabulary and pronunciation in secondary school students, while in my study only used one application to introduce vocabulary and pronunciation as basic English to autistic students.

---

[33] Muzakki Bashori et al., '"Look, I Can Speak Correctly": Learning Vocabulary and Pronunciation Through Websites Eqquiped With Automatic Speech Recognition Technology', *Computer Assited Language Learning*, 2022.

28

		that it can help to explain the actual level of learner engagement or participation, both linguistic development and trajectory on learning.		

As the results of the research above concluded no research focuses on the use of applications as media in learning basic English, especially on vocabulary and pronunciation for ASD students, for that the researcher will try to study this. It is expected that from the results of the research to be carried out, researcher are expected to be able to produce new ideas and solutions for English teachers or teachers in inclusive schools by utilising digital media facilities as learning media.