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## The Impact of Early Intervention on Students with Autism Spectrum Disorders' Readiness to Learn in The Classroom

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### Abstract

Students with Autism Spectrum Disorder are often associated with learning difficulties. These difficulties can be reduced with early intervention. However, the impact of early intervention for readiness to learn is still uncertain. The objectives of these study are to a) find out the level of readiness to learn from adaptive skills and socio-emotional regulation aspect b) find out the level of readiness to learn from cognitive and language aspects and c) find out the level of readiness to learn towards teaching and learning process in the classroom. This is quantitative research. The research instrument uses a questionnaire and is administered to 96 special education teachers. Descriptive analysis was used in this research to investigate the effect of early intervention towards the learning readiness for ASD students. Universal Design Learning Model (UDL) was used to learn ASD student readiness towards teaching and learning process. Research findings show a moderate level for adaptive, social emotional regulation, language and cognitive skills while readiness towards teaching and learning process shows high level. This finding can be further improved if early intervention is received at an earlier age. Overall, the effect of early intervention persists in learning readiness for students with autism.

**Keywords:** Autism, Classroom Readiness, Early Intervention.

### Introduction

Classroom readiness for students with Autism Spectrum Disorder (ASD) is frequently linked to a number of obstacles. Negative gestural behaviours such as shouting, speaking without the teacher's permission, being hyperactive, not paying attention, acting aggressively, and not following established rules are associated with these difficulties. This occurs when they are unable to effectively control their emotions and behaviour, resulting in unexpected behaviour (Mahmor et al., 2021). Autism is defined as a neurological disorder that causes a delay in processing information in the brain, resulting in behaviour that is different from that of typical children (Toran, 2012). Sharif et al (2019) states that autism spectrum disorder is a neurological imbalance that affects other developmental milestones.

Developmental delay and negative behaviour of autism students should not be a reason to deny their education rights. Thus, early intervention plays a crucial role in bridging the gap of

classroom readiness for children with autism. According to Ansari (2018), early intervention is defined as a continuous educational structure that combines the necessary skills for use in primary schools. According to Vinen (2017), early intervention is an effort to lessen the impact of disability on individuals, families, and communities that is inevitable after a disability has been identified. The development of autism children towards classroom readiness relies heavily on early intervention. According to Delehanty (2018), children with autism can benefit from early intervention if it is implemented early after being diagnosed.

Early intervention plays a vital role in moulding the students with autism towards the classroom readiness skills. They require better self management skills in a few areas such as adaptive skills, social emotional regulation skills, cognitive skills and language skills in order to learn efficiently in a classroom. Nevertheless, some parties do ignore the primary need for formal education due to a lack of mastery of self-skills in communication, social, emotional, psychomotor, adaptive, and cognitive domains (Ramaian, 2019). This gives negative effects in developmental for the students with autism. Early intervention must be given priority to instil classroom readiness from a very young age. Early intervention needs to be tailored according to the needs of students with autism since each child requires different areas to be improved. According to Watts (2018), the impact of continuity of early intervention on formal learning at the primary school level is still uncertain, although early intervention is said to improve classroom readiness.

Hence, this research aimed to investigate the impact of early intervention on learning readiness for autism students in classroom settings. The objective of this research are:

- a) find out the level of readiness to learn from adaptive skills and socio-emotional regulation aspect
- b) b) find out the level of readiness to learn from cognitive and language aspects
- c) c) find out the level of readiness towards teaching and learning process in the classroom.

### **Literature Review**

Students with autism experience many challenges in getting education equity in regard to the developmental delay. This developmental delay could be reduced with early intervention which is through structured education for children with special needs, particularly those with autism between the ages of one to six. Early intervention as quoted by Vinen (2017) is an intervention that is implemented after a disability diagnosis in an effort to lessen the impact of disability on individuals, families, and communities. The early preparation for schooling that comes with the implementation of intervention is crucial to reduce the delay that children with autism experience. The development of students with autism will be slowed down without early intervention education, making it challenging for them to be equipped for school.

Hence, the need for early intervention should be identified based on the condition and progress of the child. Based on research by Fuller (2019), early interventions administered at ages two were found to be more effective than those administered at ages five or six. Early intervention is a platform to prepare the children with autism towards formal learning in a school setting. Mastery of readiness to learn in the classroom is a milestone achieved for children with autism spectrum disorders (Fontil, 2019). However, the continuity impact of

early intervention on learning readiness in the classroom is still uncertain. Although early intervention has a positive effect on students' willingness to learn in the classroom, its effect on formal learning over time cannot be determined (Duncan, 2018).

Students with autism will be able to learn better when they manage to acquire a few key skills. One of them is self management adaptive skill which is the most fundamental skill for classroom readiness. According to Purpura (2017), mastery of adaptive skills requires an understanding of the environment and the capacity to master the use of various senses. Children with autism still lack adaptive abilities that are in line with their biological age. The social story method and the Picture Exchange Communication System (PECS) are two examples of approaches that can be used to help young children master adaptive skills. To be effective, mastery of this skill requires regular practice. A consistent mastery of self management adaptive skills will help to build social emotional regulation of the autism children. Children with autism possess poor socio-emotional control. According to Siti Marziah (2018), the term "socio-emotion" describes a person's capacity to identify and control their own emotions, as well as their capacity to project a positive attitude toward both themselves and others. Mastery of socio-emotional regulation will lead to a solid readiness for learning. This has been supported by Suppiah Nachiappan et al (2017) children are able to master and attain social skills like tolerance, cooperation, and the ability to voice one's opinion when communicating with peers which helps the child to regulate their social emotional skills. Previous research shows students with autism have poor control in social emotional regulation. Students with autism are often associated with social emotional regulation issues which cause frustration due to being unable to express themselves. This leads to negative behaviours which disrupts the teaching and learning process in a classroom. Thus, mastering social emotional regulation is another fundamental key to facilitate effective learning in the classroom. A person can build positive relationships and reduce or eliminate negative behaviours with good social skill proficiency (Farhan, 2020). According to Hasbullah (2020), students with autism with high socio-emotional proficiency frequently have a positive character and personality, excel academically, and are in good physical and mental health.

With the capacity to express themselves, their language skills were built. To make it easier for other aspects to develop, it is necessary to master language skills. Alzrayer et al (2017), students with autism frequently have communication issues that make managing daily life difficult. According to Sah (2021), children who have language delays will have trouble with academic learning at school. The development of communication skills is an essential component of learning readiness. Compared to students with autism who are able to communicate with their peers, students with autism who have lack communication skills face numerous obstacles in the classroom. The socio-emotional regulation of students with autism will be negatively impacted by their inability to communicate with peers. Consequently, students with autism will have a harder time preparing for classroom learning, which also requires mastery of cognitive development.

Previous study by Yamada (2019) stated the primary obstacle for students with autism spectrum disorder is cognitive impairment. Students with autism's development of other skills is impacted when cognitive mastery is delayed (Robbles, 2020). Thus, once students with autism are diagnosed with comorbidities of cognitive delay developmental, it should be addressed and administered intervention according to the needs of the child. One of the

ways to improve cognitive development is by enhancing brain development. Zeng (2019) says that physical activity can help the brain develop by influencing physiological changes that help the brain develop. Children with autism spectrum disorders can benefit better from the early intervention process owed to the physical training that is performed. As quoted by Ritterband (2019), students with autism spectrum disorders' socio-emotional development is indirectly influenced by how they respond to their environment, which has the ability to stimulate cognitive development. This demonstrates that children with autism should receive physical education in order to enhance their cognitive development.

Early intervention that applies a variety of skills to achieve learning readiness in the classroom should be given attention. Children with autism who undergo early intervention prior to formal education are primed for active participation in the teaching and learning process. Carried out using the appropriate strategies and tactics, a meticulously planned and consistent preparation for learning in the classroom will have the greatest impact in learning readiness.

The Universal Design Learning (UDL) model is an excellent choice for determining readiness to learn in the classroom of students with autism. According to Al Hazmi (2018), universal design is a teaching and learning structure designed to expand educational opportunities by removing all obstacles deterring its delivery. This model is a complete design that takes into account a variety of disabilities to make classroom learning easier. According to Aladsani (2017), the Universal Learning Design Model offers clear and adaptable guidance for integrating modifications to the curriculum and instruction for various student disabilities in the classroom. A teacher's lesson delivery skills are essential for effective classroom learning (Al-Hiary, 2019). As a result, special education teachers who educate a class of students with autism must combine a variety of skills for working with them effectively. The variety of disabilities in the classroom necessitates new teaching strategies that can be adapted by teachers (Mokhtar, 2021). Integrating early intervention into the readiness to learn in the classroom, is essential to ensuring that students with autism can best optimally learn in the classroom.

## **Methodology**

### **Participation and Procedure**

This research is a quantitative study with a survey base method. The survey has been administered to 96 special education teachers. Krejcie & Morgan's (1970) table serves as the basis for the sample size calculation, which indicates that a total of 96 samples are required for a population of 120 individuals. The criteria of the research respondent should be special education teachers who teach year 1. The study location focused on primary schools in Klang valley, Malaysia which has Special Education Integration Programme (SEIP).

### **Measures**

Research instrument uses google form questionnaires to collect data. The five-point Likert scale was used for the instrument. There were three experts involved in the process for validity and reliability. A pilot study with 30 respondents was carried out to evaluate the stability of the items in the questionnaire. Cronbach's alpha was found to be 0.956, a high consistency value, in the pilot study. The questionnaires comprise 4 constructs., of which construct A is the demographics of the respondents, with four question items. Construct B

consists of eight items to find out about how early intervention affects readiness to learn in terms of adaptive skills and social-emotional regulation in children with autism, which was the focus of study 1. Six items in construct C examine the effect of early intervention on the readiness to learn from a language and cognitive perspective while construct D consists of 6 items to find out the involvement of children with autism in the teaching and learning process in the classroom.

### Data Collection and Analysis

The Statistical Package for Social Science (SPSS) software version 29 was used to analyse the research data. As for construct A, descriptive analysis was used to examine the frequency and percentage of each teacher's demographic variable. It was also used for constructs B, C, and D, which were examined using mean scores and standard deviation values in accordance with the study's goals.

### Findings

Statistical Package for the Social Sciences (SPSS) version 29 was utilised for the analysis of the study's findings. The results of the entire questionnaire that was given to the 96 people who participated in the study can be found below.

Table 1

#### *Demographic Analysis*

<b>Demographic Variable</b>	<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Gender	Male	27	28.1 %
	Female	69	71.9 %
Level of Education	Diploma	7	7.3 %
	Baccalaureate	78	81.3 %
	Master's Degree	10	10.4 %
	PhD	1	1.0 %
Teaching Experience	0 – 5 years	16	16.7 %
	6 – 10 years	25	36.5 %
	11 – 15 years	31	32.3 %
	16 – 20 years	7	7.3 %
	21 – 25 years	4	4.2 %
	More than 25 years	3	3.1 %
Age	20 – 30	20	20.8 %
	31 – 40	36	37.5 %
	41 – 50	34	35.4 %
	51 – 60	6	6.3 %

The demography of the respondents indicated that a sum of 27 male SEIP educators and 69 female SEIP educators have answered this study which totals up to a sum of 96 individuals which brings the corresponding percentage to 28.1% for men and 71.9% for ladies. Reflecting a percentage of 81.3%, the highest level of education reported by 78 respondents are baccalaureate. Master's degrees were the next most common, with 10 respondents and a

10.4% response rate, followed by diplomas, with 7 respondents and a 7.3% response rate. Only one person had a PhD education level, making up only less than one percent.

The respondents were mostly made up of educators having 6-10 years of teaching experience resulting in the category generating the highest percentage, 36.5%. The 11-15 years of teaching experience category shows the second highest percentage of 32.3%. Garnering a percentage of 16.7%, the educators who fell into the 0-5 year experience category had the third highest frequency of 16 people. Only seven people with teaching experience of 16-20 years were found to be among the respondents, with a percentage of 7.3%, followed by those with teaching experience for 21-25 years, making up 4.2% of the respondents. Finally, it was found that three people with teaching experience of longer than 25 years made up only 3.1% of the respondents.

As for the age group variable, 37.5% of the respondents were of the 31-40 years old category. The 41- 50 years old category comprised 34 respondents, making up 35.4% of total respondents. Subsequently, the 20-30 years old category was made up of 28 respondents, 20.8% of total respondents. The age group 51-60 had the lowest frequency, contributing only 6.3% to the total.

Table 2

*Readiness to Learn in Adaptive Skills and Socio-Emotional Regulation*

<b>Num Item</b>	<b>Mean Score</b>	<b>Standard Deviation</b>	<b>Proficiency</b>
B1 80% of students with special needs have undergone early intervention before schooling.	3.02	.833	Moderate
B2 Students with special needs who have undergone early intervention are able to adapt themselves better to the classroom environment.	3.69	.758	High
B3 Students with special needs who have undergone early intervention are able to conduct themselves appropriately when relieving themselves.	3.59	.789	Moderate
B4 Students with special needs who have undergone early intervention are able to eat by themselves requiring no assistance.	3.55	.752	Moderate
B5 Students with special needs who have undergone early intervention are able to wear their shoes by themselves unassisted.	3.52	.754	Moderate
B6 Students with special needs who received early intervention better obey instructions as opposed to those who have not received early intervention.	3.63	.771	Moderate
B7 Students with special needs who have undergone early intervention socialise better with peers.	3.56	.737	Moderate
B8 Students with special needs who have undergone early intervention have better sharing habits and seldom elicit negative behaviour when asked to share with peers.	3.35	.808	Moderate
<b>Total</b>	<b>3.56</b>	<b>0.775</b>	<b>Moderate</b>

Construct B explains the level of learning readiness in students with autism in adaptive and social-emotional regulatory aspects. Overall, construct B received a mean score of 3.48 and a standard deviation reading of 0.775, indicating a moderate level of adaptive skills mastery and socio-emotional regulation to facilitate learning readiness. Item B2 had the highest score with a mean score of 3.69 and a standard deviation of 0.758,. This explains students with autism who received early intervention found it easier to adjust to the classroom environment compared to students with autism who did not. All items have received a mean score that indicates a moderate level of readiness overall. The item B1 stated the lowest mean score which is 3.02, and the value of 0.833 for standard deviation. YThis explains only a moderate number of students with autism receive early intervention before beginning primary school.

Table 3

*Readiness to Learn in Cognitive and Language Skills Aspects*

Num Item	Min Score	Standard Deviation	Proficiency
C1 Students with autism who have undergone early intervention are able to identify themselves and say their name when prompted.	3.56	.662	Moderate
C2 Students with autism who have undergone early intervention are able to greet their teachers and educators appropriately.	3.26	.757	Moderate
C3 Students with autism who have undergone early intervention are able to recognise some or all numbers from 1 to 10.	3.30	.667	Moderate
C4 Students with autism who have undergone early intervention are able to recognise some or all alphabets from A to Z.	3.27	.672	Moderate
C5 Students with autism who have undergone early intervention are able to repeat syllables clearly during the teaching and learning process.	3.15	.740	Moderate
C6 Students with autism who have undergone early intervention show interest towards learning through singing.	3.66	.868	Moderate
<b>Total</b>	<b>3.36</b>	<b>0.727</b>	<b>Moderate</b>

Construct C was to determine the level of classroom readiness in the cognitive and language aspects. Research finding shows a mean score of 3.36 and a standard deviation of 0.727 as a whole. The construct C explains students with autism have a moderate level of cognitive and language learning readiness. Item C6 reflected a highest mean score of 3.66 with a standard deviation of 0.868. This reflects students with autism who have received early intervention seem interested in learning by singing in the classroom. However, item C5 had the lowest mean score of all the items with a mean score of 3.15 and a standard deviation of 0.740, indicating moderate level of readiness. Item C5 explains that students with autism who have received early intervention are able to repeat and combine syllables during the teaching and learning process at a moderate level.

Table 4

*Readiness to Learn of Students with Autism during Lessons*

<b>Num Item</b>		<b>Min Score</b>	<b>Standard Deviation</b>	<b>Proficiency</b>
D1	Students with special needs who have undergone early intervention have a better attention span than those who did not undergo early intervention.	4.00	.768	High
D2	Students with special needs who have undergone early intervention have higher readiness to learn than those who did not undergo early intervention.	3.99	.761	High
D3	Students with special needs who have undergone early intervention are better able to cooperate in groups than those who did not undergo early intervention.	3.99	.747	High
D4	Students with special needs who have undergone early intervention are better able to complete worksheets than those who did not undergo early intervention.	3.97	.717	High
D5	Students with special needs who have undergone early intervention better understand lessons taught than those who did not undergo early intervention.	3.96	.832	High
D6	Students with special needs who have undergone early intervention respond actively during lessons than those who did not undergo early intervention.	4.06	.779	High
<b>Total</b>		<b>3.995</b>	<b>0.767</b>	<b>High</b>

The purpose of construct D is to determine the readiness to learn of students with autism in regards to the teaching and learning process in the classroom. In general the mean score for the construct D was 3.99 with standard deviation value of 0.767. With a mean score of 4.06 and a standard deviation of 0.779, item D6 had the highest mean score for construct D, while item D5 had the lowest mean score for construct D, with a mean score of 3.96 and a standard deviation of 0.832. However, construct D has generally recorded a high mean score indicating a high level of readiness to learn with regards to the teaching and learning process in the classroom. It also portrays students with autism who received early intervention displayed good involvement during the lesson conducted in the classroom. This explains early intervention improves learning readiness in children with autism towards the teaching and learning process in the classroom.

### Discussion and Suggestion

The increasing prevalence rate of ASD causes higher demand for early intervention (Kitzerow, 2020). Students with special needs particularly those with autism benefit greatly from early intervention in learning readiness for school (Kodak, 2020). According to Towle

(2020), acceptance of early intervention at a younger age has a greater impact if it is initiated as soon as possible after the diagnosis of the disability. Early intervention has an impact on a variety of developmental areas, including the readiness to learn in students with autism. The readiness to learn of students with autism in the classroom can be used to assess the efficacy of early intervention in the long run. However, the level of readiness to learn solely relies on the children themselves. The situation at school demonstrates that some students with autism who have got early intervention show better learning readiness, while others experience regression after completing the initial intervention. It will be difficult for students with autism to adapt to mastering the teaching and learning process in the classroom if they do not master a variety of skills (Larcombe, 2019).

According to the past research findings, students with autism had a moderate level of adaptive skills and social-emotional regulation, both of which are fundamental aspects of learning readiness. The guidance of a teaching assistant is required for the preparation of adaptive and executive skills such as self-management when going to the bathroom, feeding oneself, and wearing shoes. In order to be ready to learn in school, one must have mastered adaptive skills, a vital developmental area for autism students. This is supported by previous research by Kodak that was carried out in 2022. According to Kodak's study (2020), adaptive skills are a skill that students with autism must master before they are ready to learn. Kodak stated that students with autism still lack mastery of adaptive skills and frequently require self-management assistance from parents and teachers at school. As a result, students with autism frequently depend on the assistance rendered by other individuals. Additionally, Kodak asserts that autism students will lag behind in their social and cognitive development at school if they fail to master adaptive skills. Hence, adaptive skills are essential to improve learning readiness in students with autism.

Good socio-emotional regulation can be achieved with the mastery of good adaptive skills. According to the findings of this study, students with autism who have received early intervention have better socio-emotional regulation than students with autism who did not receive early intervention. Provided with early intervention, the students are better able to adapt themselves to the classroom environment and even effectively over instructions. Good control of the socio-emotional regulation of students with autism greatly influences this factor.

Mastery of socio-emotional regulation allows students with autism to strive better for learning readiness aided by good socio-emotional regulation without any negative behaviours like tantrums and disruptive behaviour, Socio-emotional regulation can help people form positive relationships and reduce bad behaviour (Farhan, 2020). It was discovered that students with autism who had participated in early intervention programmes had a higher level of learning readiness with better control of social emotional regulations. As quoted by Izuno (2021), the ability to maintain good socio-emotional regulation is one of the many aspects of learning readiness. He emphasised that children with strong pre-school socio-emotional regulation control will perform better academically in primary school. This explains why the classroom's socio-emotional regulation of learning requires stability and control.

The study further revealed that only a moderate number of students with autism receive early intervention meaning only a select few students with autism have been extended early

intervention services. There are a number of factors that contribute to the failure to receive early intervention, including the lack of early intervention centres, early intervention specialists, the remoteness of early intervention centres, and the high cost of early intervention services. However, the movement control order implemented to contain the COVID-19 outbreak has presented the greatest obstacle to early intervention over the past three years. Early intervention training for students with special needs in preparation for primary school has also been difficult due to the closing of early intervention centres. Early intervention during a pandemic or movement control orders are only carried out online through the concept of tele-therapy (Simacek, 2021).

Preparation of learning readiness also includes both cognitive and language development. The study found that early intervention had a moderate impact on the learning readiness of children with autism in cognitive and language development. Students with autism are able to say their own name when prompted, greet teachers as well as classmates appropriately with guidance. This demonstrates that language development achieved via early intervention persists in students with autism. However, early intervention elicits only a moderate impact on readiness to learn in terms of language because the ability to identify and repeat syllables remains moderate in students with autism.

Similar research by Larcombe (2019), which looked at important aspects of autism readiness to learn in children with autism, found that language and social development are more important than mastery of other aspects for their learning preparation. The development of other aspects is said to begin with mastery of language and social aspects. Larcombe (2019) argues that students with autism benefit from language skills preparation because it helps them comprehend classroom material and ideas. The findings of Larcombe's study are also supported by Pasco (2018) study, which states that increased exposure to the social environment in the classroom increases the need to communicate and indirectly it has a positive impact even after the initial intervention is completed.

Language and communication skills help students with autism better understand lessons taught during the teaching and learning in the classroom, which also helps them learn to think more clearly. Long-term cognitive readiness effects of early intervention persist in ASD students who have received it. Although the study shows that students with autism have a moderate level of cognitive and language skills, their readiness is still higher than that of ASD students who did not receive early intervention. Students with autism who have mastered cognitive skills can recognise all or some of the letters and numbers, which makes learning easier. In fact, the study's findings also demonstrate that the classroom singing method is popular among students with autism and helps them learn. This reflects that, even after early intervention and primary schooling have ended, early intervention on language and cognitive readiness still persists in ASD students.

Past study which titled *The Chicago School Readiness: Inspecting the drawn out Effects of an early Mediation* by Tyler W. Watts is one of the studies that looks at the effects of early intervention, which asserts that even though students with special needs stopped receiving early intervention ten years ago, it still has a positive effect on their cognitive, social, and socio-emotional self-regulation in line with the findings of this study. This demonstrates that

students with autism benefit from early intervention in terms of their readiness to learn and personal development.

The readiness to learn of students with autism in the classroom is impacted by mastery of language and cognitive skills. This study found that students with autism had a high level of learning readiness during the teaching and learning process in the classroom. This proves that a positive acceptance is exhibited towards the teaching and learning process in the classroom by students with autism who had undergone early intervention. Students with autism who receive early intervention develop the readiness to learn from the very beginning. With early intervention, students with autism are much prepared and aware of the teaching and learning process, which calls for their cooperation and concentration. In point of fact, the study also revealed that students with autism who had received early intervention demonstrated improved comprehension. During the ongoing teaching and learning process, it was discovered that students with autism who acquired early intervention were extremely willing and able to provide the necessary cooperation. The findings of a study indicate that students with autism actively participate in classroom learning, indicating a high level of readiness.

The expertise of subject teachers who are able to engage students with autism in learning contributes to this level of readiness. In order to cultivate interest in learning among students with autism, a variety of learning models can be used. The teaching and learning method that is based on Universal Design Learning (UDL) is one of them. According to Aladsani (2017), this model gives students with autism the opportunity to explore the teaching and learning process using a variety of presentation techniques, such as audio or video-based teaching aids, video screening, and the use of various teaching aids that can pique the interest and focus of the students in the classroom. As a result, the students exhibit positive responses to the learning content being taught, as evidenced by their responses, facial expressions, and communication. In fact, the study found that students with autism can complete worksheets more quickly and effectively on their own.

This study brings about a number of important implications, including the possibility that classroom learning readiness issues may arise if students fail to receive early intervention. If students with autism are not prepared for the teaching and learning process, they will not be able to learn in the classroom. The readiness to learn of students with autism can be improved through early intervention. The scope of this study is the same as that of Izuno's study (2021), which also focuses on the importance of adaptive skills, socio-emotional regulation, pre-academic (cognitive) skills, and language development in the learning readiness of students with autism. Therefore, early intervention is quintessential to students with autism as preparation for classroom learning. Although the students have begun learning at the primary school level, it was discovered that the impact of early intervention still persists.

Hence, early intervention is indeed important to inculcate learning readiness for ASD students. It is suggested for the students with autism to receive early intervention as soon as they were diagnosed with autism spectrum disorder to permit maximum impact on the child's development and self progress. Besides, the government should also be accountable to establish more early intervention centres with affordable cost to cater ASD children.

## Conclusion

Early intervention does not have the same effect on every student with autism. However, this study found that the readiness to learn of students with autism is affected by early intervention. The impact of early intervention on learning readiness is found to be high among students with autism, while adaptive skills, socio-emotional, cognitive, and language regulation readiness remains moderate. This demonstrates that the students still benefit from early intervention and are more likely to be ready to learn in the long run. This finding also shows that early intervention is very important for the students' readiness to learn and their development.

This study holds a strong motivation for readers that early intervention plays an important role in developing the readiness to learn in classroom for the students with autism. It also motivates the parents of the student with autism about the importance of early intervention in enhancing the learning readiness skills before they start their formal education in the classroom. Moreover, this study also motivates the government to realise the importance of early intervention for the students with autism academic progress.

With the realisation of the importance of the early intervention towards the readiness to learn in classroom, this study expects for more parents to send their children with autism to receive early intervention as soon as they being diagnosed. It is because early intervention which prepares the readiness to learn for students with autism contributes to greater impact on academic achievement in the classroom. Hence, it is also anticipated for the government to build more early intervention centres with affordable fee to accommodate the children with autism for their academic achievement. In line to this, this study plays a major role in contributing to the academic achievement and progress of the students with autism.

Additional research can be carried out with the introduction of early intervention for students with autism in Malaysia. Malaysia still lacks in the area of early intervention services hence carrying implications in areas where early intervention services remain under-extended to students with autism. As a result, the focus of the research should be on how early intervention is implemented in Malaysia, taking into account the opportunities, challenges, and obstacles that the students face when attempting to obtain early intervention. On the possibility of obtaining early intervention for students with autism, the relationship between the educational level of parents and their socioeconomic factors can be studied. Future researchers may be able to set new standards in this area of study.

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