# LANGUAGE INTERVENTION FOR A YOUNG LEARNER UNDERGOING BILINGUAL DEVELOPMENT PROBLEMS AS SYMPTOMS OF AUTISTIC SPECTRUM DISORDER

**Fitri Darsini**
fitriabassuni6@gmail.com

**Candidate Master of Masters Study Program of English Language Education, Faculty of Teacher Training and Education, University of Tanjungpura.**

**Abstract**

Despite all benefits of bilingualism, young children who are exposed to dual language through early media viewing may experience language development problems. It may consequently lead them to undergo therapies which can be counterproductive to their developmental milestones, especially to their dual language development. This research aims to gain deeper insights about the impact of early media viewing on a young child's early dual language acquisition and how language intervention in an inclusive setting of education conducted in ZonaKata School of Language improve his dual language development. A case study of a young dual language learner experiencing language development problems diagnosed as symptoms of Autistic Spectrum Disorder (ASD) was conducted by interviewing participant's parents to gain preliminary data about his language development problems. Observations took place during 108-hour language intervention sessions. The finding is that early dual language exposure through early media viewing without adequate social interaction pertinently results in language development problems which are prone to be interpreted as symptoms of ASD rather than as a natural process of bilingualism. Language intervention conducted in an inclusive setting of education which stimulates social interaction and communication can productively support a young learner's dual language development.

**Keywords:** Language intervention, bilingual development problems, young learner, ASD

.

## INTRODUCTION

### Research Background

As technology develops vastly and rapidly in Indonesia, children who were born after 2000 are growing as digital natives. They have been exposed to worldwide technology and media such as gadgets, television programs, and other media since the day they were born. The technology and media contents are mostly in English which is not their mother tongue. Thus, these children have already been conditioned to become early dual language learners since the day they were born.

Scientifically, becoming bilinguals in early age is proven to give some benefits to children's cognitive development. Lambert & Peal (1962, pp 1-23) argues that bilinguals have general intellectual advantages as they have a language asset, are more facile at concept formation, and have a greater mental flexibility. Bialystok, Craik, & Luk (2012, pp 240-250) refer mental flexibility to the ability to adapt to ongoing changes and process information efficiently and adaptively. In line with this, parents mostly provide their children with all media and technology in order to enhance their children's early bilingualism. Despite all benefits of bilingualism, young children who are exposed to early media viewing may experience mental, behavior,

social and language development problems as revealed in previous studies by Kirkorian, Wartella, & Anderson (2008), Chonchaiya & Pruksananonda (2008, pp. 977-982), Zimmerman, Christakis, & Meltzoff (2007, pp. 364-368), Zimmerman & Christakis (2007, pp. 986-992) and Kuhl (2010, pp. 713-727).

Founded in 2014, ZonaKata is an inclusive language school which commences early literacy program for 2-8 year old children. Located on Jl. Pulau We 178 Pontianak, ZonaKata has been serving for more than 100 students which 20% of them are young children experiencing language development problems. These children have been exposed to early media viewing under 2 years of age and have been suspected, identified and even diagnosed to have language development problems as symptoms of Autistic Spectrum Disorder (ASD). The diagnoses led them to undergo therapies which happened to be counterproductive to their developmental milestones, especially to their dual language development. Parents reported that the therapies did not result in any significant progresses to their children's language development. They got tantrum easily and had difficulties in communicating and interacting with other people. One of these children is Rayhan, a 6 years old boy.

During the first 36-hour observation in ZonaKata, Rayhan showed the ability to respond better in L2 than in L1. He also showed a good progress in responding simple instructions and producing words, phrases and sentences in either L1 or L2 after 6-month language intervention. Referring to previous studies about negative impacts of early media viewing and exposure on infants' language development and about the critical role of a human being's presence interacting with the infants during language exposure to the L2 learning occurrence, it is presumable that Rayhan has been undergoing language acquisition problems for having been exposed to second language through early media viewing.

This current study will highlight the language problems a young dual language learner may experience as consequences of incomprehensible poor-social context inputs in the process of second language acquisition from early media viewing and of inadequate social interactions. Thus, a rich-social context language intervention providing social interactions is essentially given to provide comprehensible inputs which are critical for his dual language development. In regard with the phenomena, a case study of language intervention for a young dual language learner undergoing language development problems diagnosed as symptoms of ASD will take place in ZonaKata School of Language. The expected finding is that a rich social-context language intervention in an inclusive educational setting which stimulates social interaction and communication with peers and language instructors can be a productive solution to help a young autistic dual language learner improve his dual language development.

**Research Questions**

The research is expected to answer several crucial questions about:

a. Why can early media viewing counterproductively impact a young child's dual language acquisition?
b. How does a language intervention program in an inclusive education setting productively enhance the dual language development of a young learner with language development problems diagnosed as symptoms of ASD?

**Research Purpose**

This research aims to gain deeper insights about:

a. A young child's early dual language acquisition through early media viewing and its consequences on his dual language development.
b. How a language intervention program in an inclusive education setting improve the dual language development of a young learner with language development problems diagnosed as symptoms of ASD..

**Language Intervention**

*Concept of Language Intervention*

Language intervention is any planned action designed to modify or prevent an unwanted outcome. The purposes of interventions will include the acquisition of new skills and knowledge but will also include supporting the child to use and maintain skills and knowledge they have acquired. The basic assumption is that when a child receives an intervention, his/her language will improve more rapidly than if he/she receives no intervention (Dockrell & Messer, 1999, p. 134). McGee & Lord (2001, pp. 41) argue that educational objectives must be based on specific behaviors targeted for planned interventions. Some targeted behaviors, such as toilet training or acquisition of functional spoken language, provide immediately discernible practical benefits for a child and his or her family. However, in many other cases, both in regular education and specialized early intervention, the links between the objectives used to structure what a child is taught and the child's eventual independent, socially responsible functioning are much less obvious. This is particularly the case for preschool children, for whom play and manipulation of toys (e.g., matching, stacking of blocks) are primary methods of learning and relating to other children.

Characteristics of the most appropriate intervention for a given child must be tied to the child's and family's needs. McGee & Lord (2001, p. 181) emphasize that direct evaluation is essential to know which features are of greatest importance in a program. For preschool, the intervention program should fulfil some critical features comprising active engagement in intensive instructional programming for a minimum of the equivalent 5 days (at least 25 hours) a week, varied according to the child's chronological age and developmental level; the conduct of brief periods of time for the youngest children (e.g., 15- 20 minute intervals), including sufficient amounts of adult attention in one-to-one and very small group instruction to meet individualized goals; the inclusion of a family component, including parent training; low student/teacher ratios (no more than two young children with ASD per adult in the classroom); and mechanisms for ongoing program evaluation and assessments of individual children's progress, with results translated into adjustments in programming.

*Method and Approaches of Language Intervention*

There are three main approaches for language interventions to young children with autism, didactic behavioral, naturalistic behavioral and developmental language approaches. Specific skills may show different outcomes depending on the treatment. For children who do not speak, naturalistic behavioral approaches may be the most powerful for teaching functional communication and shaping speech with spontaneity, generalization, and motivation to communicate (Rogers, 2006, pp. 143-179). However as Ingersoll, Schreibman, & Stahmer (2001, pp. 343-350) have discussed, the didactic teaching method may be a more powerful initial teaching approach for some very avoidant children who initially lack much motivation for objects. Furthermore, didactic approaches may be usefully combined with naturalistic behavioral approaches for some specific reasons, such as teaching a particularly difficult syntactic form such as pronouns or other deictic constructions.

Discrete Trial Training (DTT) is one of the most important instructional methods for children with autism. DTT is a method for individualizing and simplifying instruction to enhance children's learning and especially useful for teaching new forms of behavior (e.g., speech sounds or motor movements that the child previously could not make) and new discriminations (e.g., responding correctly to different requests). DTT can also be used to teach more advanced skills and manage disruptive behavior. This method must be combined with other interventions to enable children to initiate the use of their skills and display these skills across settings. Children with autism may require many hours of DTT per week, although controversy exists over precisely how much is appropriate (Smith, 2001, pp. 86-92).

Another approach is Augmentative Alternative Communication (AAC). Romsky & Sevik (2005, pp 174-185) claim that AAC that uses manual signs, communication boards with symbols, and computerized devices that speak and incorporate the child's full communication abilities, is truly multimodal intervention approach permitting a child to use every mode possible to communicate messages and ideas. Using this approach, a child can communicate using a range of representational mediums from symbolic (e.g., speech or spoken words, manual signs, arbitrary visual-graphic symbols, printed words) to iconic (e.g., actual objects, photographs, line drawings, pictographic visual graphic symbols) to non-symbolic (e.g., signals such as crying or physical movement). In addition, some young children who have no conventional way to communicate and may express their communicative wants and needs in socially unacceptable ways, such as through aggressive or destructive, self-stimulatory, and/or perseverative means may benefit from other dimensions of AAC when communicating with familiar and unfamiliar partners across multiple environments. AAC can play at least four different roles in early intervention. The role(s) an AAC system plays will vary depending on an individual child's needs. These roles are as follows: augmenting existing natural speech, providing a primary output mode for communication, providing an input and an output mode for language and communication and serving as a language intervention strategy. The most common and well-known role is to provide an output mode for communication.

Egger and Angold in Gunter, Caldarella, Korth, & Young (2012) argue that social and emotional difficulties are common during the preschool years as young children are just beginning to develop language skills as well as capacities to regulate their thoughts, feelings, and behaviors. Children with social emotional deficits may exhibit difficulty connecting with teachers and classmates, develop internalizing behavior problems. One way to address and potentially prevent such problems is to provide children with early social and emotional learning experiences. Reicher (2010, pp. 213-246) defines SEL as the process of socialization and education related to personal, interpersonal and problem-solving skills and competencies. This process takes place in formal and informal settings and is influenced by a complex interplay of individual, situational and cultural factors. Effective SEL interventions are provided within supportive learning environments and are directed at enhancing the social–emotional environmental factors that influence learning. The multifaceted SEL approach should not be seen as additional but as an 'integral part of inclusive educational processes. Cited in Gunter, Caldarella, Korth, & Young (2012), Collaborative for Academic, Social, and Emotional Learning [CASEL] defines social and emotional learning as the process whereby children are able to acknowledge and manage their emotions, recognize the emotions of others, develop empathy, make good decisions, establish positive friendships, and handle challenges and situations effectively. SEL helps students to recognize emotions first in themselves and then in others so they can also develop empathy. SEL curricula directly teach children appropriate actions and provide a safe environment for them to practice what they learn. A focus of SEL programs is to promote positive behaviors such as success, kindness, and caring and to prevent bullying, violence, and later emotional and behavioral problems. SEL skills can help students and teachers handle themselves, their relationships, and their work more responsibly and more effectively. SEL works best for children who need it the most, but benefits are also evident in students not considered to be at risk. Several findings and studies about SEL indicate that both pro-social behaviors (e.g. good attendance, appropriate classroom behavior, positive attitude toward school) and academic achievement increased significantly, while antisocial behaviors (drug use, violence, and bullying incidents) decreased following SEL interventions. Positive effects of SEL typically maintain for at least 6 months following implementation–often longer. Another study by Wong, Li-Tsang, & Siu (2004) reveals that SEL for primary students can significantly reduce behavior problems of the participants. Incorporating an SEL program into whole-class instruction can provide all students with an equal opportunity to learn both academic and nonacademic skills.

It is a truism that no single approach can best meet the needs of all children with autism and that individualization of approach to maximize progress will be necessary to attain the best outcome for an individual child. It is clear that, whatever approach is used, ongoing individual interactions with a child using carefully planned and sequenced strategies and clear reinforcement practices in natural environments should be involved. Such interventions are being delivered effectively in many settings home, inclusive and specialized preschool group programs, and therapy sessions (Rogers, 2006, pp. 143-179). UNESCO defines inclusive education as a process intended to respond to students' diversity by increasing their participation and reducing exclusion within and from education. The concept of education for all does not imply the concept of inclusion. Even though both are intended to ensure access to education, inclusion involves access to high-quality education without discrimination of any kind, whether within or outside the school system (Acedo, Amadio, & Opert, 2008, pp. 13-20). Stubbs (2008, pp. 38-51) describes the concept of inclusive education as a broader concept of education than formal schooling which includes home, community, non-formal and informal systems. Inclusion or Inclusive Education is not another name for 'special needs education'. It involves a different approach to identifying and attempting to resolve difficulties that arise in schools. An educationally inclusive school is one in which the teaching and learning, achievements, attitudes and well-being of every young person matters. Tremblay (2011, pp. 277-284) reveals significant differences in the effects of inclusion and special education model for students with learning disabilities (LD) on students' performance. The inclusion model has no negative effect on the participating students and is globally more effective compared to the special education model. The choice of the inclusion model as an opportunity for change presents a credible alternative to the special education model by allowing for the emergence of an original and viable configuration of resources for the inclusion of students with learning disabilities.

**Bilingualism**

*Concept of Bilingualism*

More than half of the world's population is bilingual (Bialystok, Craik, & Luk, 2012, pp. 240-250). In general, the ability to use two languages is called bilingualism. Unfortunately, it is not so easy to define bilingualism that various experts in this field of study may differ in proposing the definition of bilingualism. Extreme different thoughts about bilinguals are well represented by Kanarakis cited in Sudarsono (2016, pp. 1-7) who defines bilinguals as ones who have the minimal skill of using two languages in contact for a complete meaningful speech and by Bloomfield who in contrast defines that bilinguals can also refer to those who learn a foreign language and acquire it perfectly without loss of his native language. In line with this, the terms bilingual and bilingualism have received diverse definitions. Bilingual (the person) and bilingualism (the condition or state of affairs) refer to the use of two or more languages in everyday life (Silva-Corvalan, 2014, pp. 1-3).

*Types of Bilingualism*

There are two common parameters that distinguish bilingualism to age of acquisition (early in childhood versus late after puberty) and order of sequence of acquisition in childhood (two languages being acquired simultaneously versus one language being acquired successively, after the other). Early bilingualism takes place before puberty and can be simultaneous or sequential (Montrul, 2008, pp. 94-120). Silva-Corvalan (2014, pp. 1-4) has identified two major patterns of language acquisition in studies of early bilingualism as simultaneous bilingualism and sequential bilingualism. In simultaneous bilingualism, the child acquires two languages at the same time from birth or, as some researchers proposes, before 3 years of age. Unfortunately there is no agreement existing with respect to the age at which bilingual development would be considered to be sequential. He also classifies bilingualism into: (a) successive bilingualism, when the child's exposure to a second language starts sometime between the first and third

birthdays; and (b) early second language acquisition, a form of early bilingualism that happens when a child has one established language before starting to hear and learn a second language.

Bilingual First Language Acquisition (BFLA) refers to the development of language in young children who hear two languages spoken to them from birth (De Houwer A. , 2009). BFLA children are learning two first languages. There is no chronological difference between these two languages in terms of when the children started to hear them. The term BFLA is used as a synonym for bilingual development in a more technical and precise term. Similarly, Montrul (2008, pp. 94-96) defines BFLA as the acquisition of two languages simultaneously in early childhood is similar, if not identical, to the acquisition of only one language by monolingual children.

*Dual Language Acquisition*

The distinctions among the concepts of first language, native language, primary language, and mother tongue are not always clear-cut. They are usually generalized as L1 to oppose the set generalized as L2. For purposes of SLA concerns, L1s are assumed to be languages which are acquired during early childhood, normally beginning before the age of about three years – and that they are learned as part of growing up among people who speak them. Acquisition of more than one language during early childhood is called simultaneous multilingualism, to be distinguished from sequential multilingualism, or learning additional languages after L1 has already been established. Simultaneous multilingualism results in more than one "native" language for an individual, though it is undoubtedly much less common than sequential multilingualism. Second Language Acquisition (SLA) refers both to the study of individuals and groups who are learning a language subsequent to learning their first one as young children, and to the process of learning that language. The additional language is called a second language (L2), even though it may actually be the third, fourth, or tenth to be acquired. The scope of SLA includes informal L2 learning that takes place in naturalistic contexts, formal L2 learning that takes place in classrooms, and L2 learning that involves a mixture of these settings and circumstances. A brief comparison of L1 and L2 learning is divided into three phases: the initial state which includes the underlying knowledge about language structures and principles that is in learners' heads at the very start of L1 or L2 acquisition, the intermediate states which cover all stages of basic language development which is known as learner language (also interlanguage or IL), and the final state, which is the outcome of L1 and L2 learning. The initial state of L1 learning thus is composed solely of an innate capacity for language acquisition which may or may not continue to be available for L2, or may be available only in some limited ways. The initial state for L2 learning, on the other hand, has resources of L1 competence, world knowledge, and established skills for interaction, which can be both an asset and an impediment (Troike, 2006, pp. 4-6).

According to Brown (2000, pp. 22-24) language is a fundamental part of total human behavior. Effective language behavior is the production of correct responses to stimuli. If a particular response is reinforced, it then becomes habitual or conditioned. Thus, children produce linguistic responses that are reinforced. One learns to comprehend an utterance by responding appropriately to it and by being reinforced to that response. Troike (2006, pp. 34-36) also assumes that language acquisition essentially involves habit formation in a process of Stimulus – Response – Reinforcement (S-R-R). Learners respond to the stimulus (linguistic input), and reinforcement strengthens (i.e. habituates) the response; they imitate and repeat the language that they hear, and when they are reinforced for that response, learning occurs. The implication is that "practice makes perfect".

Language use does not vary from first language situations to various second language situations. Input hypothesis is central to all of acquisition so that the teacher's main role is to ensure that students receive comprehensible input. Factors determining comprehensibility are the native

speakers (NS's) ability to understand the non-native speakers' (NNS's) pronunciation, the NNS's ability to use the second language grammatically and the NNS's ability to contextualize the language by using appropriate vocabulary and linking devices. The interaction approach accounts for learning through input (exposure to language), production of language (output), and feedback that comes as a result of interaction. Interaction involves a number of components including negotiation, recasts, and feedback. Negotiation provides the means for participants to respond appropriately to one another's utterance and to regain their places in a conversation after one or both have "slipped." In conversations involving NNSs, negotiations are frequent, at times occupying a major portion of the conversation (Gass & Selinker, 2008, pp. 308-312).

In today's world, children are widely and frequently exposed to media and technology. It happens that young children are drawn and even addicted to those media and technology available in their home and from the adults around them. They are naturally adept technology users. Christakis, et al. (2013, pp 431-438) reported that preschool children watched television for about 4 to 5 hours each day. Lapierre, Piotrowski, & Linebarger (2012, pp. 1-8) reported that the average American child between the ages of 8 months and 8 years were exposed to almost four hours of background television per day. A survey to 2500 parents all over Singapore, Thailand, Indonesia, Malaysia and Philippine about mobile device usage among young kids held in 2014 showed that 98% of the respondents allowed their children to use smartphone/tablet for edutainment and educational purpose for more than 1 hour per usage and most parents know the risks of the media and technology usage on their children's development (The Asian Parents, 2014).

Due to early media and technology exposure, Zimmerman, Christakis, & Meltzoff (2007, pp 364-368) reveals some negative impacts of early media viewing on infants' language development. His findings show that 8 to 16-month old infants who watch baby DVD's have poor language skills and their knowledge about words decrease for about 6-8 fewer words for each hour of baby videos exposure. Kuhl (2010, pp. 713-727) reveals that infants who are exposed to foreign language material via standard television or audiotape only, showed no language learning in their brain activities. Thus, the presence of a human being interacting with the infants during language exposure is critical for learning complex natural language-learning situations. De Houwer (2009) claims that children who hear two languages from birth do not say much in the first year of life. Through interactions with people who talk to them regularly they do learn to understand words and phrases in two languages by their first birthday. This comprehension of language grows, and never stops, at least not in healthy, hearing individuals. Conboy, Brooks, Meltzoff, & Kuhl (2015, pp 216-229) argue that the effets of social interaction on language learning may be multiple and complex. Social contexts provide important information that is either non-existent or greatly reduced in non-social situations, such as the passive video viewing or auditory-only presentations that fail to produce phonetic learning. There is a significant relationship between the degree to which infants shift their gaze between a tutor's face and the conversation topic and the degree to which infants show phonetic learning as measured through neural measures.

*Early Bilingual Development*

In regard with age of acquisition effects in bilingual development, Marian & Kaushanskaya (2007) indicates that early bilingualism is crucial for modification of the underlying cognitive system by the linguistic experience. A bilingual advantage on a word learning task demonstrates age-of-acquisition effects in the development of bilingual advantage, and shows that bilingualism can shape the relationship between working-memory mechanisms and word-learning capacity. Fortune (2012, pp 1-12) claims that fully proficient bilinguals outperform monolinguals in the areas of divergent thinking, pattern recognition, and problem solving. On the other hand, Core, et al (2012, pp 1-27) claims that, on average, children acquiring two languages will lag behind children acquiring only one-when the bilingual children's skills in

only one of their languages are assessed. The size of difference between monolingual and bilingual children's skills in any language depends on how much of that language the bilingual child hears.

Children are born ready to learn the language or languages of their environments without confusion or delay (Werker & Heinlein, 2008, pp. 144-141). In line with this, Hoff & Core (2015, pp. 89-99) concludes that in bilingual development, dual language input does not confuse children and learning two languages takes longer than learning one; on average, bilingual children lag behind monolingual children in single language comparisons. A dominant language is not equivalent to an only language. A measure of total vocabulary provides the best indicator of young bilingual children's language learning capacity. Bilingual children can have different strengths in each language, and the quantity and quality of bilingual children's input in each language influence their rates of development in each language.

According to Heinlein & Williams (2013, pp. 96-112), one misunderstood behavior which is often taken as evidence for confusion, is when bilingual children mix words from two languages in the same sentence. This is known as code mixing. In fact, code mixing is a normal part of bilingual development, and bilingual children actually have good reasons to code mix. Rather than being a sign of confusion, code mixing can be seen as a path of least resistance: a sign of bilingual children's ingenuity. Paradis, Nicoladis, & Genesee (2000, pp. 245-261) prove that there is also evidence that children's early code mixing adheres to predictable grammar-like rules, which are largely similar to the rules that govern adults' code mixing. In line with this, Montrul (2008) explains that like proficient bilingual adults, bilingual children mix the two languages within and between utterances. Initially, code switching may be a strategy bilingual children resort to in order to compensate for gaps in lexical development. But research has shown that, as their linguistic competence in the two languages develops, bilingual children mixed utterances progressively.

It is also known that bilingual children are not more likely than monolingual children to have difficulties with language, to show delays in learning, or to be diagnosed with a language disorder (Paradise, Nicoladis, Crago, & Genesee, 2011, pp. 554-578); (Pettito & Holowka, 2002, pp. 4-33). So, early bilingualism is not supposed to result in language development problems. On the contrary, bilingualism is a way to promote successful early bilingual development, even though in some cases, where families are not fluent in a second language, early bilingualism might be unrealistic (Heinlein & Williams, 2013, pp. 96-112).

**Language Development Problems**

Differentiating language delay or disorder from sequential bilingualism is important. A child learning a second language will normally have delays and inaccuracies in syntax that monolingual child may not have. These usually result from "learning errors' derived from common underlying, learning strategies (the methods used to teach a child a language) and are not language disorders. Progress in the first language sometimes appears to be slowing down compared with that of a monolingual child, but this relative delay is usually not significant. There may be some periods of language mixing, but having a solidly developed language can only help with mastery of second language. When first language acquisition stagnates (usually because support for its maintenance is lacking), the second language is often developed enough to take over (Fierro-Cobas, 2001, pp. 79-98).

The behavioral characteristics of autism and related disorders vary considerably. Flusberg, Paul, & Lord (2000, pp. 335-364) argue that one consistent problem area of autism is in the acquisition and use of language. Schwartz (2010, pp. 67-89) refers language problems as ASD symptoms to joint attention, delayed onset of speech, deficits in the comprehension and use of prosody. Prosody can be examined in three general categories: grammatical prosody, marking

syntactic information within a sentence; pragmatic prosody, used to carry social information beyond what is conveyed in the sentence; and affective prosody, the change in register conveying speaker's general feelings. Menyuk (1985, pp. 127-145) proposes that autistic children demonstrate a severe cognitive-semantic deficit. There are two aspects in the acquisition of relational terms that make them particularly difficult for autistic children to acquire: (1) the need to process contextual and linguistic material simultaneously for understanding of relational terms, a difficulty that severely affects many aspects of language development by autistic children and (2) the gestalt or associative manner in which relations are encoded in the memory of autistic children. Autistic children's language is characterized by slow acquisition and restricted use of relational word classes. They have particular problems in generalizing meaning across settings and, therefore, use certain of these word classes in an absolute rather than relational manner, even though the terms themselves are relational in nature.

## METHODOLOGY

### Research Design

This current research is a case study. Creswell (2012, pp. 465-466) defines a case study as an in-depth exploration of a bounded system. The case may be a single individual, several individuals separately or in a group, a program, events or activites. The research seeks to develop an in-depth understanding of the case by collecting multiple forms of data such as pictures, video tapes and scrapbooks. Dawson & Algozzine (2006, pp. 9-11) differ case studies from another type of qualitative research in that they are intensive analyses and descriptions of a single unit or system bounded by space and time. Context is important in case study research, and its benefits are a strength of doing intensive investigations of individuals or groups as well as events, situations, programs, activities, and other phenomena of interest. Case study research is richly descriptive, because it is grounded in deep and varied sources of information. Through case studies, researchers hope to gain in-depth understanding of situations and meaning for those involved. Yin (2003, p. 2) refers case study as a method which allows investigators to retain holistic and meaningful characteristics of real-life events such as individual life cycles.
Referring to the definitions above, this study observed and recorded the language intervention in a classroom consisting of two language instructors, one tutor, the selected participant and at least four other regular students to gain an in-depth exploration of how a language intervention program in an inclusive education setting enhance the dual language acquisition of a young learner with language development problems.

### Selecting Case of Study

In line with the problems to explore and the purposes to obtain, Kohn (1997, pp. 1-9) defines criteria of a case study as follow:
A case to describe a process or the effects of an intervention, especially when such events affect many different parties and to explain a complex phenomenon.
A case applied in program evaluation studies or studies that track changes which may actually be more powerful for explanatory purposes in its ability to answer questions of how and why.

Referring to the case criteria above, the language intervention conducted in ZonaKata School of Language for a young learner undergoing language development problems as consequences of early dual language acquisition through early media viewing is selected as a case of this study. In this case, language intervention is a process that affect participant's dual language development. Early bilingualism through early media viewing resulting in language development problems undergone by the participant and the progress of the participant's dual language development after certain periods of language intervention in ZonaKata are viewed as the phenomena requiring exploration and understanding to answer questions of how and why.

**Selecting Participants**

In accordance with the purpose of the research, this study selected purposive samplings comprising of young dual language learner with relevant characteristics and his mother. The characteristics of the young dual language learner are listed as follow:

1. Participant has language development problems
2. Participant has been diagnosed to have symptoms of ASD.
3. Participant has been exposed to dual language through early media viewing.
4. Participant has shown some progress in his dual language development after having been undergoing language intervention sessions for 108 hours in ZonaKata School of Language.

Referring to the participants' characteristics above, Rayhan and his mother are selected as participants of the case. Rayhan was born on June 26, 2011 and has been exposed to media viewing, gadgets, TV and video, since he was under the age of 2 years. He produced more English words than Indonesian words. He understood only limited simple instructions either in Indonesian or in English. At the age of 5, Rayhan was diagnosed to have ASD and therefore he had to undergo therapy for 2 weeks. The therapy happened to be counterproductive to his social-emotional development and behavior so that his parent stopped enrolling him in the therapy sessions. Then, he enrolled in a special needs education preschool for 6 months. Still, Rayhan did not have any language development progress so that he started enrolling in ZonaKata School of Language on April 5, 2017. Regarding the commencement of inclusive education program in ZonaKata and the social emotional problems experienced by the subject of the research, ZonaKata implemented SEL intervention combined with DTT and AAC to intervene subject's language development.

**Techniques and Tools of Collecting Data**

*Techniques of Collecting Data*

To collect data, social scientists make use of a number of different data collection strategies. In a qualitative research design the data collection strategy typically involves collecting a large amount of data on a rather small, purposive sample, using techniques such as in-depth interviews, participant observation, or focus groups. Data collected can be primary or secondary data. Primary data are original data that are collected for the specific research problem at hand, using procedures that fit the research problem best whereas secondary data are data originally collected for a different purpose and reused for another research question (Hox & Boeije, 2005, pp. 593-599). In short, the various nature of qualitative forms of data can be placed into four categories: observations, interviews and questionnaires, documents and audiovisual materials (Creswell, 2012, pp. 212-224).

*Interview*

A popular method of data collection in a qualitative research is the qualitative interview in which interviewees are given the floor to talk about their experiences, views, and so on. Instead of a rigidly standardized instrument, interview guides are used with a range of topics or themes that can be adjusted during the study (Hox & Boeije, 2005, p. 595). Dawson & Algozzine (2006, pp. 40-45) classify interviews into structured, semistructured, or unstructured interviews. They claim that semistructured interviews are particularly well-suited for a case study research as semistructured interviews invite interviewees to express themselves openly and freely and to define the world from their own perspectives, not solely from the perspective of the researcher. Researchers use predetermined but flexibly worded questions and ask follow-up questions designed to probe more deeply issues of interest to interviewees. In this study, the one-on-one interview will be addressed to the participant's mother before the language intervention sessions by using a guided and open-ended list of questions to gain preliminary data about participant's historical and chronological language development problems.

*Observation*

Observation is the process of gathering open-ended, firsthand information by observing people and places at a research site. Considering the situations, a researcher can be a participant observer or nonparticipant observer. In many observational situations where a researcher needs to adapt his/her role to the ongoing situation, a changing observational role can be very advantageous (Creswell, 2012). Dawson & Algozzine (2006, pp. 46-47) consider the most important factor for the researcher is to identify what must be observed in order to shed light on possible answers to the research questions. This study will apply a changing observational role to observe the process and the outputs of language intervention including the method applied and the aids used, participant's response, gestures, emotion, speech, social skills, pragmatic skills, language skills and communication skills.

*Documents, Video Records and Reports Review*
According to Hox & Boeije (2005, pp. 595-599), for some social research questions, it is possible to use data collected earlier for other purposes than research such as administrative records or other accounts kept routinely by organizations. Using secondary data presents researchers with a number of characteristic problems.
In order to have a deeper insight about participant's bilingual progress in the first 6 months of language intervention, this study uses participant's progress reports recorded by ZonaKata tutor and language instructors and learning video records as secondary data.

*Tools of Collecting Data*
This study will utilize a video recorder, a camera and notes during the language intervention sessions to record data on the site. Guided list of questions for interview in Appendix 3, 4 and 5 are adapted and modified from Assessment day: Questions about the communication development of your young child with an Autism Spectrum Disorder (Vicker, 2003) and DSM-5 Autistic Spectrum Disorder Guidelines and Criteria Exemplar (Carpenter, 2013).

**Procedure of Data Analysis**
*Preparing and Organizing Data*
The researcher does initial data management consisting of organizing the data, transcribing interviews, typing observation check lists and notes in order to analyze the data by hand. Since the data to be collected represent only one participant, computer program is not necessary. All instruments are attached in appendices (Creswell, 2012).

*Coding to Build Description and Themes*
A code in qualitative inquiry is often a word or short phrase that symbolically assigns a summative, salient essence-capturing, and or evocative attribute for a portion of language-based or visual data. The data can consist of interview transcripts, participant observation field notes, documents, literature, artifacts, photographs video, websites, e-mail correspondence, and so on. First Cycle coding processes can range in magnitude from a single word to a ful1 sentence to an entire page of text to a stream of moving images (Saldana, 2009, p. 3). In order to directly answer the research questions and purposes, researcher is going to use First Cycle Coding Method. This study applies Descriptive and Simultaneous Coding since the intentional findings are about participant's real problems in his bilingual language acquisition and how the language intervention improve his dual language development (Saldana, 2009, pp. 45-53).

*Analyzing Data*
Data analysis is a systematic search for meaning. It is a way to process qualitative data so that what has been learned can be communicated to others. Analysis means organizing and interrogating data in ways that allow explanations, make interpretations, mount critiques, or generate theories. It often involves synthesis, evaluation, interpretation, categorization, hypothesizing, comparison, and pattern finding (Hatch, 2002, p. 148). Good qualitative data analyses are distinguished by their focus on the interrelated aspects of the setting, group, or

person under investigation—the case— rather than breaking the whole into separate parts. The whole is always understood to be greater than the sum of its parts, and so the social context of events, thoughts, and actions becomes essential for interpretation. Qualitative data analysis is an iterative and reflexive process that begins as data are being collected rather than after data collection has ceased. Identifying and refining important concepts is a key part of the iterative process of qualitative research. Sometimes, conceptualizing begins with a simple observation that is interpreted directly, "pulled apart," and then put back together more meaningfully. A well-designed chart or matrix can facilitate the coding and categorization process. Examining relationships is the centerpiece of the analytic process, because it allows the researcher to move from simple description of the people and settings to explanations of why things happened as they did with those people in that setting. The process of examining relationships can be captured in a matrix that shows how different concepts are connected, or perhaps what causes are linked with what effects (Schutt, 2015, pp. 320-333). Miles and Huberman cited in Dawson & Algozzine (2006, pp. 110-111) comprehensively describe and summarize a set of helpful analytic manipulations. Making a matrix of categories and placing the evidence within such categories are one of the useful and important analytic manipulations to put evidence in preliminary order.

This study analyzes the language intervention and the language development condensed into simple categories. The language intervention involves methods or approaches applied, teaching aids used, instructions given and contextualization which can be categorized as input. In the process of language intervention, functional communication skills, pragmatic skills and communication skills are intervened and indicated by the participant's responses The language production of the participant's is categorized as output of the language intervention (Schwartz, 2010); (Menyuk & Quill, 1985); (Smith T. , 2001); (Rogers, 2006); (Romsky & Sevcik, 2005); (Brown, 2000); (Troike, 2006); (Flusberg, Paul, & Lord, 2000); (Reicher, 2010). Participant's comprehension and utterance comprehensibility in L1 and L2 are reveiwed as measurements of participant's dual language development (Gass & Selinker, 2008); (De Houwer A. , 2009); (Core, et al., 2012); (Core, et al., 2012); (Montrul, 2008); (Paradis, Nicoladis, & Genesee, 2000); (Paradise, Nicoladis, Crago, & Genesee, 2011).

*Representing and Reporting Qualitative Findings*

The primary characteristic of reporting findings when doing case study research is repetitive, continual review of obtained information to identify answers to questions being investigated. Reports of case study research reflect all aspects of the investigative process using integrated sections of text or illustrative tables to reduce the typical volumes of available information to meaningful units for confirmation and dissemination. The report should articulate the event, situation, program, or activity under investigation, and how the research effort is bounded by time and space, reflect the literature related to the topic under investigation and how that literature informs the research questions, be richly descriptive and include key participants' statements that elucidate significant findings (Dawson & Algozzine, 2006, pp. 61-63). The findings of this study are represented in visual displays such as pictures with captions and illustrative tables. Findings are reported in descriptive and explanatory discussions to answer the research questions of the study.

## FINDINGS AND DISCUSSION

### Early Media Viewing Counterproductively Impact A Young Child's Dual Language Acquisition

The initial interview with parents taken before the language intervention reveals that Rayhan had some communication, social-emotional and behavior problems. He was diagnosed to have Autistic Spectrum Disorder (ASD) but has never taken any IQ test. Rayhan has been exposed to television, computer or gadgets since he was below age of 2 years with no parents' supervision

for more than 5 hours a day. He watched videos or games in L2 and while doing so he did not have any interaction with people around him. The only focus he was on to was the media.

Rayhan's mother reported that most people around Rayhan use Indonesian to communicate. There are three people living in the house: Rayhan, his 8 year-old sister and his mother. Rayhan's father does not live in the same city and spends time with Rayhan during his working holidays only. Rayhan's mother is a working mother and she spends most time with her children early in the morning before school and at evening time (6-9 pm) on weekdays. Rayhan spends his time with his caregiver during his mother's working hours.

Based on the observation in early sessions of the language intervention, Rayhan showed no emotional expressions and comprehensible utterances in communicating with others. Rayhan had difficulties in responding people who talked to him appropriately and properly, expressing his needs and thoughts, and speaking in L1. It was easier for him to utter English words than Indonesian words, for example, he used the word "yellow" instead of "kuning" in identifying the color of a thing being asked to him. Overall, Rayhan displayed difficulties which extend beyond speech and language to other aspects of social communication, both receptively and expressively.

In the aspect of pragmatic skills, participant showed that he had no difficulties in appropriately responding or doing activities based on the instructions given as long as he understood the instructional language. Most of the time, the language instructor needed to use L2 as a bridging instructional language along with appropriate gestures and facial expressions. When Rayhan spoke, either in L1 or in L2, he used telegraphic speech such as "mamak…. cocroach", "no…..ok", "main…ayo". Rayhan also did code switching and code mixing in his utterances, for example mentioning fruits: "apel, jeruk, pineapple", counting in L1 and L2 alternately: "one, two, three, four, five, enam, tujuh, eight……" and spelling words "mobil" as em-o-bi-ai-el.

In aspect of social participation, Rayhan also displayed difficulties or differences or both in interacting with people. Most of the time, he did not show interests or enjoyment of an activity with others as he has difficulties in making and maintaining friends. Rayhan appeared to be more interested in objects than people and tend to avoid social contacts with others. Rayhan could only express his anger and sadness by shouting and crying. Rayhan misunderstood others easily which eventually made him angry, sad and frustrated easily. He got even more frustrated every time he was not understood by others. Rayhan did not give any proper and appropriate responses when tutors spoke in L1. He started giving responses when the language instructor asked yes/no questions and optional questions in both L1 and L2 by making an eye contact and nodding or shaking his head while saying yes or no or choosing the given options. By the time tutors and the language instructor understood what Rayhan was trying to utter and helped him to articulate the words appropriately, he tried to articulate the word and started to feel at ease in communicating with the tutors and the language instructor. When English and Indonesian were used alternately to communicate with Rayhan, the tutors and language instructor could communicate more smoothly with him as he could comprehend the instructions more and became more understandable. He then started to be able to respond in both L1 and L2 with clearer articulations.

Having been exposed to L2 through early media viewing, Rayhan has actually been undergoing a process of simultaneous dual language acquisition in his critical period. Unfortunately, it was an improper simultaneous acquisition regarding the poor social-context inputs which cannot support Rayhan to communicate interactively with people around them. Referring to Karshen's view, there are absences of persons who can ensure that they receive comprehensible input. Rayhan can easily imitate the NSs' pronunciation, but as NNSs, he is lost in contextualizing the language by using appropriate vocabulary and linking devices. Since L2 is acquired almost with

no interaction, only through media exposures, he misses feedbacks, negotiations and recasts that come as a result of interaction. This condition makes him lack of ability to respond appropriately to other people's utterances and to regain his places in a conversation. Being exposed to media viewing in his infancy with limited social interactions, Rayhan experienced the impacts of early media viewing on his dual language development as he was not adequately and properly stimulated and reinforced to produce words. Referring to (Kuhl, 2010), when Rayhan was exposed to L2 through the media, the learning process did not occur even though he listened the words from the media in his memory. The inputs became incomprehensible which consequently led to Rayhan's insufficient vocabulary to produce words. In this case, Rayhan has no difficulties in articulating the words. He just did not know what the words are to represent what he needed to express.

In order to intervene the language development, comprehensible inputs were significantly required as subject was in the state of acquiring his dual language. Referring to Troike (2006) about the notions in behaviorist psychology that language acquisition essentially involves habit formation in a process of Stimulus – Response – Reinforcement (S-R-R), early dual language acquisition can be acquired properly and naturally by facilitating learners to respond to the stimulus (linguistic input). The tutors conditioned the reinforcement strengthen (habituated) the response by training them to imitate and repeat the language that they hear in order to let the learning occurs. The implication is that "practice makes perfect".

**Language Intervention for a Young Learner with Language Development Problems Diagnosed as Symptoms of ASD**

The process of language intervention implemented necessary methods, techniques, approaches and teaching aids in a rich social context classroom atmosphere to stimulate participant's responses, behavior, emotion, expressions, gestures, social interaction, word production and communication for 2 hours per session. The necessary teaching aids utilized among others are vocabulary blocks, flash cards, worksheets, a laptop and a smartphone.


**Picture 1. Bilingual flashcards used in language intervention**

This study found the phenomena of language development problems undergone by the participant as an impact of poor social context in early bilingualism through early media viewing and that the language intervention conducted resulted in progress on the participant's dual language development as it provided rich social-emotional contexts equipped with appropriate vocabulary inputs, language contextualization, feedbacks and negotiation to enhance participant's L1 and L2 production after certain periods of intervention. The participant was conditioned to interact with other persons using both languages, English and Indonesian simultaneously, in a 30m2 air-conditioned classroom. While the participant was playing among his peers, the language instructors provided social contexts through pretend plays. Participant was stimulated to produce language as responds to the situation occurred during the play. Such language contextualization facilitated by the language instructions in participant's social interactions cannot be acquired through early media viewing. Picture 1, Transcript 1 and 2 depict a stimulating rich-social context situation in a pretend play acted out by the participant and the language instructors.

**Picture 2. A rich-social context pretend play**

Transcript 1, 2 and 3 show that Rayhan can already express his thought verbally in phrases. Even though Rayhan used more non-verbal language than verbal language to communicate, it is obvious that he could already conduct a two-way communication in his social interaction in line with his social-emotional and pragmatic skills progress.

**Transcript 1. The language intervention in a pretend play**

| | |
|---|---|
| LI: Rayhan, what are you doing? | *input* |
| R : (busy setting up the playing spot) | *process* |
| LI: Ooohh….. is this your study room? | *input* |
| R: (smile and kept busy) | *non-verbal output* |
| LI: (observing) | |
| R: (done with the setting and sat down) | *process* |
| LI: Wow…. It's your study room. | *contextual input* |
| R: Ok (smile) | *output* |
| LI: Kriiiiiiing…..Kriiiiiiing…. | *contextual input* |
| R: (picking up the phone) halo | *output* |
| LI: Halo, Rayhan sedang apa? Sedang main ya? | *contextual input* |
| R: ya | *verbal output* |
| LI: tut…tut…tut | *contextual input* |
| R: hmmmm… (hang up the phone) | *output* |
| P: (approaching and picking up the phone) | |
| R: huaaaa…. (got angry)….no..no | *output* |
| LI: It's ok. El wants to join you. Main sama-sama. | *input* |
| R: (pushing away his peer) | *process* |
| P: Ngape kau ni? (moving out of the room) | |
| R: (moving his hand) go away | *verbal output* |

**Transcript 2. The implementation of DTT and AAC in the language intervention using flash cards and printing material**

| | |
|---|---|
| T1: (showing pineapple flashcard) What is this? | *question* |
| R : (busy playing) | *process* |
| T1: Ehan…. Apa ini? ..... Apa ini? | *question* |
| R : Pineapple | *verbal output* |
| T1: Yes. Nanas….. nanas…….Ehan……..nanas | *input* |
| R : (touching the bucket cap one by one) | |
| T1: One….. two…three… | *contextual input* |
| R : (Taking a printing of a milk box given by Tutor 2) | |
| T2: Ini apa ini …… apa ini? | *input* |
| R : Susu | *verbal output* |
| T2: Susu | *reinforcement* |
| R : (Pretending pouring the milk to his imaginative glass and poked T2 to see what he was doing) | *non-verbal cue* |
| T2: Apa ini? | *question* |
| T1: Ehan….. oooh…. dituang | *contextual input* |
| R : sssssssssss…… (pretending pouring) | *verbal output* |
| T2: (giving R a printing of glass) Nih…tuangnya di sini. | instruction |
| R : (ignoring T2 and pretending drinking the milk) | |
| T1: Oooo….. minum. | *contextual input* |
| T2: Ehan, tuangnya dimana ini? (giving a printing of glass) Ehan…..Ehan….tuangnya dimana? | *contextual question* |

**Transcript 2. The implementation of DTT and AAC in the language intervention using flashcards and printing materials (……..continued)**

| | |
|---|---|
| R : (Paying attention and trying to grab the printing) | *process* |
| T2: Ini apa? | *question* |
| R: (Grabbing the printing) | |
| T2: Gelas | *input* |
| R : Gelas | *verbal output* |
| T2: Tuang di gelasnya. | *instruction* |
| R : Ayan | *verbal output* |
| T1: A? | *corrective question* |
| R : Ayan | *verbal output* |
| T1 :Ayam | *corrective feedback* |
| R : Ayan | *verbal output* |
| T1: Chicken | *negotiation* |
| R : Chicken | *verbal output* |
| T2: Ini ayamnya nih (giving R a printing of fried chicken) | *contextual input* |
| T1: Ayam goring | *input* |
| R : (taking the printing) | |
| T1: Makan ayamnya….. makan ayamnya. | *contextual input* |
| R : (pretending eating) krauk….krauk… | *output* |
| T1: OK…. (showing a picture of monkey) What is this? | *question* |
| R : Monyet | *L1 output* |
| T1: Monyet…..monkey | *bilingual input* |
| R: Monkey | *L2 output* |
| T1: Apa ini? | *Reinforcement* |
| R: Monyet | *L1 output* |
| T1: Monyet | *Reinforcement* |
| R : Monyet | *L1 output* |
| T1: What is this? | *L2 reinforcement* |
| R :Monkey | *L2 output* |
| T1: Monkey | *Reinforcement* |
| R :Monkey | *L2 output* |
| T1: Good | *reward* |

There were three segments for each intervention session, vocabulary building, cognitive stimulating activities and free play for social skills building. In vocabulary building segment, the language instructor used DTT as a method and didactic behavioral approach to expose and drill new vocabulary to the participant. The language instructor gave a vocabulary blocks to the participant while articulating the words for the pictures on the blocks, the participant accepted and repeated the words and inserted the vocabulary blocks to the provided space after he could articulate the words correctly as can be seen in Picture 3 and Transcript 3.

**Picture3. Vocabulary building in language intervention using vocabulary blocks.**

**Transcript 3. Language intervention using vocabulary blocks**

| | |
|---|---|
| T: Mana anggur? | *question* |
| R: (taking and inserting the grape block to the box correctly) | *pragmatic skill* |
| T: (giving R watermelon block) Ini… semangka | *input* |
| R: sememang | *verbal output* |
| T: semangka ….watermelon | *corrective feedback* |
| R: watermelon | *verbal output* |

**Picture 4. Cognitive stimulating segment of a language intervention session**.

In cognitive stimulating activities segment, the language instructor used AAC as a method combined with didactic and naturalistic behavioral approach to expose participant on instructional language in order to stimulate his communication skills while doing worksheets, book reading, card reading and video viewing. Cognitive stimulating segment is presented in Picture 4.

Free play segment is conducted using SEL approach by conditioning the participant to interact with his peers. When conflicts occurred between the participant and his peers, the language instructor intervened with contextual words needed in accordance with the ongoing situations. Picture 5 represents free play segment.

**Picture 5. Free play to build participant's social skills by interacting with peers**.

Having conducted a 108-hour observation on Rayhan's language development during language intervention sessions, the research did not find any symptoms of pragmatic, affective and grammatical prosody which lead to context blindness and problem solving disabilities which both are the main characteristics of ASD. Having sufficient dictions and repertoire to express what he needed and thought as well as being able to identify and express his feelings appropriately, Rayhan could get involved in the communication and interact well using telegraphic speech with facial expressions showing his emotions. He could easily joke and be involved in jokes with peers and tutors in his social interaction. Code switching and code mixing occurred occasionally when he communicated. Challenging behaviors like tantrums, throwing things and hitting peers which were mostly caused by emotional problems were more manageable and frequently lessen. Overall, the language intervention implemented has effectively and progressively enhanced subject's dual language acquisition and development.

**Table 4. Participant's vocabulary development in 6 months of language intervention**.

| Intervention | O | Development | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Greetings | Requests/ Instructions | Negotiations | Prohibition | Questions | Imitating | Learning Attitudes |
| Vocabulary Building | PS | Understood greetings in month 4 | Playing vocab blocks as instructed in month 1 | | | Started to use question words in month 5, respond "*bunyin ya gimana*?" with appropriate sounds. | Accomplish drilling activities in month 2. | Able to respond animal flashcards with appropriate sounds in month 3. |
| | CS | Started to respond and greet in month 4 | | | | Able to ask names of things by saying "mamak", "miss" while pointing things in month 3 and by saying "apa" while pointing things in month 5. | Refused to imitate in month 1, started to repeat after tutor in month 2 | Able to act out words on flash cards in month 6. |
| | LP | Started to say "bye" in month 4, "hi" in month 5 and phrases like "iya Miss", "kabar baik" in month 6 | Able to say words "ulat" and "tiger" in month 2 | | | | | Able to say words on flash cards in month 6. |

O: output PS=pragmatic skills CS: communication skills
LP:language production

**Table5. Participant's cognitive development in 6 months of language intervention**.

| Language Intervention | O | Development | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Greetings | Requests/ Instructions | Negotiations | Prohibition | Questions | Imitating | Learning Attitudes |
| Cognitive Stimulating Activities | PS | | Started to understand instructions to do worksheets in month 3. | | | | | Had been attentive to and understood book readings and nursery video viewing by responding with appropriate facial expressions since month 1. |
| | CS | | Responding instructions | Crying and shouting to disagree in month 1-6, started to say OK to agree in month 2 and say "no" to disagree in month 3 | | | | Responded with big smile when tutor offered to watch "baby jojoy" in month 3, started showing animals to tutor in month 3. |
| | LP | | | | | | Imitated articulating numbers in month 2 | Could exclaim "wow" in month 1, was able to name 20 animals in L2, count 1-15 (L1/L2) |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | in month 3, was able to count 1-20 (L1/L2) and articulate words properly in month 4, was able to count 1-40 (L1/L2) in month 6. |

O: output PS=pragmatic skills CS: communication skills
LP:language production

**Table 6. Participant's social-emotional development in 6 month of language intervention**

| Language Intervention | O | Development | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Greetings | Requests/ Instructions | Negotiations | Prohibition | Questions | Imitating | Learning Attitudes |
| Free Play | PS | Understood how to greet and respond in month 5 while playing. | Understood how to ask for help in month 6 | | Understood rules not to disturb peers in month 2 | | | |
| | CS | Responding to tuor's greeting while playing in month 5 | Able to say "Miss, tolong buka" to ask tutor to help opening his food package and say "thank you" afterwards in month 6 | | Crying and shouting when prohibited not to disturb peers in month 1, non-verbal and verbal responses to agree not to disturb peers in month 2, able to | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | prohibit peers not to disturb him by saying "go away", "stop" and "wait" in month 6 | | | |
| | L P | Greetings in phrases in month 5 | Able to request in phrases in month 6. | | Able to say OK to agree and no to disagree in month 2, able to say phrases in appropriat e context of prohibitio n in month 6. | | | |

O: output PS=pragmatic skills CS: communication skills
LP:language production

The findings of the study show that Rayhan's dual language development was progressing in 6 months of language intervention sessions. Rayhan had no problems in developing his pragmatic skills. Rayhan was also progressing in his communication skills as his comprehension on other persons' utterances progressed well. Rayhan could also be understood well after 6 months of language intervention as he was well trained to articulate words and express thoughts properly by supporting him with sufficient vocabulary and contexts.

In order to intervene the language development, comprehensible inputs were significantly required as subject was in the state of acquiring his dual language. Referring to Troike (2006) about the notions in behaviorist psychology that language acquisition essentially involves habit formation in a process of Stimulus – Response – Reinforcement (S-R-R), early dual language acquisition can be acquired properly and naturally by facilitating learners to respond to the stimulus (linguistic input). The tutors conditioned the reinforcement strengthen (habituated) the response by training them to imitate and repeat the language that they hear in order to let the learning occurs. The implication is that "practice makes perfect".

Participant was stimulated and trained to respond simple language instructions in both languages, English and Indonesian, considering that effective language behavior to be the production of correct responses to stimuli. If a particular is reinforced, it then becomes habitual or conditioned. Thus, children produce linguistic responses that are reinforced. One learns to comprehend an utterance by responding appropriately to it and by being reinforced to that response. The language intervention effectively help the participants to develop both languages simultaneously in their process of first language acquisition as mentioned by Brown (2000) that language is a fundamental part of total human behavior, and human behaviorists examined it as such and sought to formulate consistent theories of first language acquisition.

In order to stimulate participant's language skills, the language instructor trained Rayhan to express proper and appropriate words while interacting with his peers and tutors. Reffering to Karshen's view concluded by Gass & Selinker (2008) the teacher's main role is to ensure that students receive comprehensible input since the Input Hypothesis is central to all of acquisition and the interaction approach accounts for learning through input (exposure to language), production of language (output), and feedback that comes as a result of interaction. Interaction involves a number of components including negotiation, recasts, and feedback. Negotiation provides the means for participants to respond appropriately to one another's utterance and to regain their places in a conversation after one or both have "slipped." In conversations involving NNSs, negotiations are frequent, at times occupying a major portion of the conversation.

Challenging behavior and emotional problems demonstrated by Rayhan occurred as a result of communication failures, not as symptoms of ASD. The failures are mostly caused by his being unable to express what he needs and thinks for having insufficient vocabulary either in L1 or in L2 which is prone to be misinterpreted as language lag. Parents have difficulties in figuring out his utterances which are mostly in poor-articulated L2. Rayhan tends to avoid eye contacts to manifest his failure in comprehending the instructional language. Referring to Fierro-Cobas (2001), it is important to differentiate language delay or disorder from sequential bilingualism. A child learning a second language will normally have delays and inaccuracies in syntax that monolingual child may not have. These usually result from "learning errors' derived from common underlying, learning strategies (the methods used to teach a child a language) and are not language disorders. Referring to Schwartz (2010) who mentioned that language problems as Autistic Spectrum Disorder symptoms include joint attention, delayed onset of speech, deficits in the comprehension and use of prosody, it is obvious that Rayhan does not have any of those symptoms.

In facilitating participant's social interaction with his peers, the language instructors did not only provide opportunities for participants to express and manage his emotions but also appropriate language inputs to help participant recognize his emotion. Referring to Egger and Angold in Gunter, Caldarella, Korth, & Young (2012), the implementation of SEL was productive as children with social emotional deficits may exhibit difficulty connecting with teachers and classmates and develop internalizing behavior problems. One way to address and potentially prevent such problems is to provide children with early social and emotional learning experiences. SEL helps students to recognize emotions first in themselves and then in others so they can also develop empathy. SEL curricula directly teach children appropriate actions and provide a safe environment for them to practice what they learn. A focus of SEL programs is to promote positive behaviors such as success, kindness, and caring and to prevent bullying, violence, and later emotional and behavioral problems.

As an inclusive school of language, ZonaKata provided supportive learning atmosphere for participants to interact with peers in rich social context language intervention. The language intervention was effective to overcome participant's social emotional problems which further enhance his communication and social skills. As claimed by Reicher (2010, pp. 213-246), effective SEL interventions are provided within supportive learning environments and are directed at enhancing the social–emotional environmental factors that influence learning. The multifaceted SEL approach should not be seen as additional but as an 'integral part of inclusive educational processes.

## CONCLUSION

The analysis on the research findings leads to the conclusion that early dual language exposure through early media viewing to a child below 2 years of age without adequate social interaction pertinently results in language development problems which are prone to be interpreted as symptoms of Autistic Spectrum Disorder (ASD) rather as improper early dual language

acquisition. Early media viewings expose a young learner to incomprehensible inputs which consequently cause problems for the learner to develop his pragmatic and communication skills properly.

Supporting a young dual language learner with appropriate language intervention simultaneously with adequate social interactions can help him improve his dual language development. The language intervention conducted in an inclusive educational setting implemented in ZonaKata School of Language can productively improve dual language acquisition of a young learner undergoing impacts of early media viewing on his language development because it exposes the learner to sufficient comprehensible inputs in a rich-social context atmosphere by conditioning participant's social interactions with other persons to enhance his communication skills.

It is suggested that parents wisely use media to support young children's early dual language acquisition by providing them adequate social interactions as young children can acquire their first language only with the presence of a human. Further studies on how children with various types of language development problems such as mental retardation, dyslexia and ADHD can benefit inclusive education settings for their dual language acquisitions are recommended.

## BIBLIOGRAPHY

Acedo, C., Amadio, M., & Opert, R. (2008). Defining an Inclusive Education Agenda: Reflections of the 48th session of The International Conference on Education. *SRO-Kundig* (pp. 13-20). Switzerland: Unesco International Bureau of Education.

Bialystok, E., Craik, F. I., & Luk, G. (2012). Bilingualism: Consequences for Mind and Brain. *Journal of Trends In Cognitive Science April Vol. 16 No. 4,*, 240-250.

Brown, H. D. (2000). *Principles of Language Learning and Teaching (4th Edition).* New York: Longman.

Carmines, E. G., & Zeller, R. A. (1991). *Reliability and Validity Assessment.* Newbury Park: Sage Publications.

Carpenter, L. (2013). *DSM 5 Autism Spectrum Disorder: Guidelines and Criteria Exemplars.* South Carolina: Medical University of South Carolina.

Chonchaiya, W., & Pruksananonda, C. ( 2008). Television Viewing Associates with Delayed Language Development. *Journal of Acta Pædiatrica 97,*, 977–982 .

Christakis, D. A., Garrison, M., Herrenkohl, T., Haggerty, K., Rivara, F. P., Zhou, C., & Liekweg, K. (2013). Modifying Media Content for Preschool Children:. *Journal of PEDIATRICS Volume 131, Number 3, March 2013*, 431-438.

Conboy, B. T., Brooks, R., Meltzoff, A. N., & Kuhl, P. K. (2015). Social Interaction in Infants' Learning of Second-Language Phonetic: An Exploration of Brain-Behavior Relations. *Journal of Developmental Neuropsychology, 40(4)*, 216-229.

Core, C., Place, S., Rumiche, R., Senor, M., Parra, M., & Hoff, E. (2012). Dual Language Exposure and Early Bilingual Development. *Journal of Child Language: 39(1)*, 1-27.

Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research. 4th Edition.* Boston: Pearson.

Dawson, R. H., & Algozzine, B. (2006). *Doing Case Study Research: A Practical Guide for Beginning Researchers.* New York: Teachers College Press.

De Houwer, A. (2009). *An Introduction to Bilingual Development.* Bristol: Multilingual Matters.

De Houwer, A. (2009). *Bilingual First Language Acquisition.* Bristol: Multilingual Matters.

Dockrell, J., & Messer, D. (1999). *Children's Language and Communication Difficulties: Understanding, Identification and Intervention.* London: Continuum.

Fierro-Cobas, V. a. (2001). Language Development in Bilingual Children: A Primer for Pediatricians. *Contemporary Pediatrics Journal. Vol. 18, No. 7*, 79-98.

Fink, A. (1995). *How to Measure Survey Reliability and Validity.* Thousand Oaks: Sage.

Flusberg, H. T., Paul, R., & Lord, C. (2000). Language and Communication in Autism. In J. Groden, *Handbook of Autism and Pervasive Developmental Disorder* (pp. 335-364). New Jersey: American Journal of Psychiatry- American Psychiatric Association.

Fortune, T. (2012). What The Research Says about Immersion. In Asia Society, *Chinese Language Learning in The Early Grades* (pp. 1-12). Minnesota: The Asia Society.

Gass, S. M., & Selinker, L. (2008). *Second Language Acquisition (3rd Edition).* New York: Routledge.

Guest, G., Namey, E., Thairu, L., & Johnson, L. (2008). Data Reduction Techniques for Large Qualitative Data Sets. In G. Guest, & K. M. MacQueen, *Handbook of Team-based Qualitative Research* (p. 141). New York: Altamira Press.

Gunter, L., Caldarella, P., Korth, B. B., & Young, K. R. (2012). Promoting Social and Emotional Learning in Preschool Students: A Study of Strong Start Pre-K. *Early Childhood Education Journal (40),* 151-159.

Hatch, J. A. (2002). *Doing Qualitative Research in Education Settings.* New York: State University of New York Press.

Heinlein, K. B., & Williams, C. L. (2013). Bilingualism in the Early Years: What the Science Says. *Journal of LEARNing Landscapes | Vol. 7, No. 1, Autumn 2013*, 96-112.

Hoff, E., & Core, C. (2015). What Clinicians Need to Know about Bilingual Development. *Semin Speech Lang Conference Proceeding; 36;* (pp. 89-99). New York: Thieme Medical Publishers, Inc.

Hox, J. J., & Boeije, H. R. (2005). Data Collection, Primary vs Secondary. In K. K. Leonard, *Encyclopedia of Social Measurement Vol.1* (pp. 593-599). Dallas: Elsevier.

Ingersoll, B., Schreibman, L., & Stahmer, A. (2001). Differential Treatment Outcomes for Children with Autistic Spectrum Disorder Based on Level of Peer Social Avoidance. *Journal of Autism and Developmental Disorders (31),* 343-350.

Kirkorian, H. L., Wartella, E. A., & Anderson, D. R. (2008). Media and Young Children's Learning. *Spring Vol.18 No.1*, 39-61.

Kohn, L. T. (1997). *Methods in Case Study Analysis - Technical Report.* New York: The Center for Studying Health System Change.

Kuhl, P. K. (2010). Brain Mechanisms in Early Language Acquisition. *Neuron Journal (67); September 9*, 713-727.

Lambert, W. E., & Peal, E. (1962). The Relation of Bilingualism to Intelligence. *Journal of Psychological Monographs: General and Applied, Vol.76*, 1-23.

Lapierre, M. A., Piotrowski, J. T., & Linebarger, D. L. (2012). Background Television in the Homes of US Children. *PEDIATRICS Volume 130, Number 5, November 2012*, 1-8.

Marian, V., & Kaushanskaya, M. (2007). Age-of-Acquisition Effects in the Development of a Bilingual Advantage for Word Learning. *Proceeding of The Boston University Conference on Language Development.* Boston: Boston University.

McGee, J. P., & Lord, C. (2001). *Educating Children with Autism.* Washington DC: National Academic Press.

Memisevic, H., & Hadzic, Z. (2013). Speech and Language Disorders in Children with Intellectual Disability in Bosnia and Herzegovina. *Brief Reports Vol. 24, No. 2*, 92-99.

Menyuk, P., & Quill, K. (1985). Semantic Problems in Autistic Children. In E. a. Schopler, *Communication Problems in Autism* (pp. 127-145). New York: Springer.

Montrul, S. A. (2008). *Incomplete Acquisition in Bilingualism: Re-Examining the Age Factor.* Philadelphia: John Benjamins Publishing Company.

Paradis, J., Nicoladis, E., & Genesee, F. (2000). Early Emergence of Structural Constraints on Code Mixing: Evidence from Frenc-English Bilingual Children. *Journal of Bilingualism: Language and Cognition 3 (3), Cambridge University Press*, 245-261.

Paradise, J., Nicoladis, E., Crago, M., & Genesee, F. (2011). Bilingual Children's Acquisition of The Past Tense: A Usage-Based Approach. *Journal of Child Language Volume 38 / Issue 03 / June 2011*, 554 - 578.

Pearson, B. Z. (2008). *Raising A Bilingual Child.* Massachusets: Living Language.

Pettito, L. A., & Holowka, S. (2002). Evaluating Attributions of Delay and Confusion in Young Bilinguals:Special Insights from Infants Acquiring a Signed and a Spoken Language. *Sign Language Studies Journal Vol.3/1*, 4-33.

Reicher, H. (2010). Building Inclusive Education on Social and Emotional Learning: challanges and perspectives. *International Journal of Inclusive Education, Vol. 14(3), May*, 213-246.

Rogers, S. (2006). Evidence-Based Interventions for Language Development in Young Children with Autism. In T. Charman, & W. Stone, *Social and Communication Development in Autism Spectrum Disorders: Early Intervention, Diagnosis, and Intervention, Diagnosis and Intervention* (pp. 143-179). New York: Guilford Press.

Romsky, M., & Sevcik, R. A. (2005). Augmentative Communication and Early Intervention: Myths and Realities. *Infants and Young Children Journal; Vol.18, No. 3*, 174-185.

Rutter, M. a. (1987). Autism and Pervasive Development Disorders:Concepts and Diagnostic Issues. *Journal of Autism and Developmental Disorders June, Volume 17, Issue 2*, 159-186.

Saldana, J. (2009). *The Coding Manual for Qualitative Researchers.* London: Sage Publication.

Schutt, R. K. (2015). *Investigating Social World.* Los Angels: Sage Publication.

Schwartz, R. G. (2010). *Handbook of Child Language Disorder.* New York: Psychology Press.

Silva-Corvalan, C. (2014). *Bilingual Language Acquisition: Spanish and English in The First Six Years.* London: Cambridge University Press.

Simon, M. K. (2011). *Validity and Reliability in Qualitative Studies; Dissertation and scholarly research: Recipes for Success.* Seattle: Dissertation Success.

Smith, J. (2003). *Qualitative Psychology: A Practical Guide to Research Methods.* London: Sage Publication.

Smith, T. (2001). Discrete Trial Training in the Treatment of Autism. *Focus on Autism and Other Developmental Disabilities Journal (16)*, 86-92.

Stubbs, S. (2008). *Inclusive Education: Where There Are Few Resources.* Oslo: The Atlas Alliance.

Sudarsono. (2016). *Bilingualism and Teaching English as Foreign Language.* Pontianak: Tanjungpura University .

The Asian Parents, I. (2014). *Mobile Device Usage Among Kids.* Jakarta: The Asian Parents Indonesia.

Tremblay, P. (2011). Assessment of the Real and Perceived Effectiveness of Two Educational Models for Students with Learning Disabilities. *Literacy Information and Computer Education Journal (LICEJ), Vol. 2, Issue 1, March*, 277-284.

Troike, M. S. (2006). *Introducing Second Language Acquisition.* Cambridge: Cambridge University Press.

Vicker, B. (2003). Can Social Pragmatic Skills Be Tested? *The Reporter Journal, 8(3),* 12-15.

Werker, J. F., & Heinlein, K. B. (2008). Bilingualism In Infancy: First Steps In Perception and Comprehension. *Journal of Trends in Cognitive Sciences*, 144-151.

Wong, A. S., Li-Tsang, C. W., & Siu, A. M. (2004). Effect of a Social Emotional Learning Programme for Primary School Students. *Hongkong Journal of Occupational Therapy 24*, 56-63.

Yin, R. K. (2003). *Case Study Research: Design and Methods (3rd Edition).* London: Sage Publication.

Zimmerman, F. J., & Christakis, D. A. (2007). Associations Between Content Types of Early Media Exposure and Subsequent Attentional Problems. *Pediatrics Vol.120 No. 5, November* , 986-992.

Zimmerman, F. J., Christakis, D. A., & Meltzoff, A. N. (2007). Association between Media Viewing and Language Development in Children under Age 2 Years. *The Journal of Pediatrics*, 364-368.