

Language Development Barriers Encountered by Young Dual Language Learners as a Result of Early Exposure to Media: A Case Study

FITRI DARSINI

University of Tanjungpura
fitriabassuni6@gmail.com

ABSTRACT

Benefits of bilingualism abound in the literature. However, some scholars claim that young children who are exposed to dual language through early media viewing at an early age may experience language development problems. Such problems may in turn have them undergo therapies which can be counterproductive to their developmental milestones, particularly their dual language development. This research aims to gain deeper insights into the impact of early media viewing on young children's early dual language acquisition. In this regard, a case study of five young dual language learners experiencing language development problems diagnosed as symptoms of Autistic Spectrum Disorder (ASD) and Mental Retardation (MR) was conducted. Specifically, in order to gain preliminary data about their language development problems, the participants' parents were interviewed, and an estimated 108-hour language intervention sessions were observed. Upon having conducted 108-hour observation, the researcher did not identify any symptoms of pragmatic, affective and grammatical prosody which lead to participants' context blindness and problem-solving disabilities as the main characteristics of ASD and MR. Findings of this study revealed that early dual language exposure through media viewing without adequate social interaction may pertinently result in language development problems. It was also found that such problems are often misinterpreted as symptoms of ASD or of MR rather than the processes of bilingualism. It is therefore recommended that appropriate language intervention programs which provide adequate social interactions can really help young learners improve their dual language development.

Keywords: dual language acquisition, early media viewing, language development problems, Young learners

INTRODUCTION

With the advent of technological era in Indonesia, children who were born beyond the year of 2000 have been considered as digital natives. Such a development has exposed them to various technological devices and programs such as gadgets, a wide range of television programs, and other media since birth. Notably, both the technology and media contents are mostly available in English, which is not their mother tongue. Thus, the simultaneous use of both their mother tongue and the English by these children have made them early dual language learners since the day they were born.

It has scientifically been proven that being bilinguals at an early age brings various benefits to children's cognitive development. Some studies have proven bilingual children as having better attention span, task-switching capacities and being able to adapt themselves to environmental changes better than monolingual children (Lambert & Peal, 1962, Bialystok, Craik, & Luk, 2012 and Fortune, 2012). With the aim of further enhancing bilingualism, most

parents provide their children with all media and technology. Nonetheless the benefits, it has been argued young children experience language development barriers, social-emotional and behavioural problems as they have been exposed to media and technology at a very young age.

Zona Kata i.e., an inclusive language school that was founded in 2014, commences early literacy program for children of 2-8 years old. Located on Jl. Pulau We 178 Pontianak, Zona Kata has been offering its services to more than 100 students, 20% of which are young children experiencing language development problems. These children have been exposed to early media viewing below 2 years of age and have been suspected, identified and even diagnosed to have language development problems as symptoms of Autistic Spectrum Disorder (ASD) or Mental Retardation (MR). Three of these children, namely Nu (7 years), Att (7 years) and Ti (4 years) were diagnosed with ASD but have never taken any IQ test whereas the two other children, namely Ath (7 years) and Ka (7 years) had taken an IQ test and were diagnosed with mental retardation (MR). As a result of the diagnoses, they had to undergo therapies which happened to be counterproductive to their developmental milestones, especially to their dual language development. In addition, their parents reported that the therapies did not result in any significant progress with regards to their children's language development. According to the parents, they threw tantrums easily and had difficulties in communicating with others.

It was discovered in the first 36 hours of observation in ZonaKata that all five children demonstrated an ability to respond in English better than Indonesian. After a 6-month language intervention, they also indicated a good progress in responding to simple instructions, producing words, phrases and sentences in both languages. Upon relating to previous studies looking into the adverse impact of early media viewing and exposure on infants' language development, and the critical role of a human beings' presence interacting with the infants during language exposure to English learning occurrence, it was learnt that these children were encountering problems related to language acquisition as a result of being exposed to second language through early media viewing. It has to be noted that the previous studies did not discuss in detail the reasons to early media viewing counterproductively impacting on young children's language development. In contrast, the current study attempts to explain the impact of early media viewing on young children's bilingual development by highlighting the language barriers they may experience as a result of incomprehensible poor-social context inputs and of inadequate social interactions in the process of second language acquisition from early media viewing. In this regard, a case study of looking into the impact of early media viewing on five young dual language learners experiencing language development problems diagnosed as symptoms of ASD or MR was carried out in ZonaKata School of Language. The present study specifically aims to gain deeper insights into the reasons of early media viewing counterproductively impacting on the five sampled young children's bilingual acquisition and development.

BILINGUALISM

Early bilingualism reportedly happens before an individual reaches puberty and it can be either simultaneous or sequential (Montrul, 2008, pp. 94-120). Silva-Corvalan (2014, pp. 1-4) observed two major patterns of language acquisition in studies looking into early bilingualism i.e., simultaneous bilingualism and sequential bilingualism. As regards simultaneous bilingualism, a child acquires two languages at the same time from birth or, as some researchers propose, before 3 years of age. Unfortunately, there is no clear consensus with

respect to the age at which bilingual development can be considered as sequential. De Houwer (2009) refers Bilingual First Language Acquisition (BFLA) to the development of language in young children who hear two languages spoken to them from birth. BFLA children learn two first languages. In addition, no chronological difference is observed 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 manner. 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.

According to Brown (2000, pp. 22-24), language is a fundamental part of total human behaviour. In this regard, an effective language behaviour can be considered as 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 opines that language acquisition essentially involves habit formation in a process of Stimulus – Response – Reinforcement (S-R-R). Learners respond to the stimulus (i.e., 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 from the explanation is that “practice makes perfect”.

It has to be noted that language use does not vary from first language situations to various second language situations. Input hypothesis is central to all of the acquisition so that the teacher’s main role is to ensure that students receive comprehensible input. Factors determining comprehensibility are the native speakers’ (NS’) ability to understand the non-native speakers’ (NNS’) pronunciation, the NNS’ ability to use the second language grammatically and the NNS’ ability to contextualize the language by using appropriate vocabulary and linking devices. The interaction approach accounts for learning through input (i.e., exposure to language), production of language (i.e., output), and feedback that comes as a result of interaction. The interaction here 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 reportedly frequent, at times occupying a major portion of the conversation (Gass & Selinker, 2008, pp. 308-312).

DUAL LANGUAGE EXPOSURE

At present, the level of exposure to media and technology had by children is relatively higher. Interestingly, young children are drawn to, adept at and even addicted to those media and technology available in their respective homes and from the adults around them. Christakis, et al. (2013) found in their study that preschool children in the US watch television on an average of 4 to 5 hours each day. Another finding about children in the US stated by Lapiere, Piotrowski, & Linebarger (2012) is that the average American child between the ages of 8 months and 8 years is exposed to almost four hours of background television per day. In a recent survey sampling 2500 parents all over Singapore, Thailand, Indonesia, Malaysia and the Philippines about mobile device usage among young kids in 2014, it was found that the Asian Parents felt that 98% of the respondents allow their children to use smartphones/tablets for

edutainment and educational purposes for more than 1 hour per usage. This is despite most parents being aware of the risks of the media and technology usage on their children's development.

Upon closely looking into early media and technology exposure, Zimmerman, Christakis, & Meltzoff (2007, pp 364-368) revealed some negative impact of early media viewing on infants' language development. Their findings showed that 8 to 16-month old infants who watch baby DVDs 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) observed that infants who are exposed to foreign language material via standard television or audiotape only, indicated no language learning activities in their brain. It can therefore be argued that 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) argued that children who hear two languages from birth may not say much in the first year of their lives. By means of interactions with individuals who talk to them on a regular basis, they do learn to understand words and phrases in two languages by their first birthday (one year). This comprehension of language grows, and never stops, at least not among healthy, hearing individuals. Conboy, Brooks, Meltzoff, & Kuhl (2015, pp 216-229) argued that the effects of social interaction on language learning may be multiple and complex. It has to be noted that the 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.

Differentiating between language delay or disorder from sequential bilingualism is of utmost importance. A child learning a second language normally experiences delays and inaccuracies in syntax that a monolingual child may not have. These usually result from "learning errors" derived from common underlying, learning strategies (i.e., 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 a significant one. There may be some periods of language mixing but having solidly developed any language can only help with mastery of second language. When the first language acquisition stagnates (usually due to lack of support for its maintenance), the second language is often developed enough to take over (Fierro-Cobas, 2001, pp. 79-98).

DUAL LANGUAGE ACQUISITION AND EARLY BILINGUAL DEVELOPMENT

Related studies have found that fully proficient bilinguals outperform monolinguals in the areas of divergent thinking, pattern recognition, and problem-solving (Fortune, 2012). For instance, Marian & Kaushanskaya (2007) revealed that a bilingual advantage on a word learning task, demonstrated age-of-acquisition effects in the development of bilingual advantage, and showed that bilingualism can shape the relationship between working-memory mechanisms and word-learning capacity. It was learned through the study that early bilingualism is crucial for modification of the underlying cognitive system by the linguistic experience. On the other hand, Core, et al. (2012) reveals that on average, children acquiring two languages will lag behind those acquiring only one. Specifically, it happens in the event of the bilingual children's skills in only one of their languages being assessed. It is also worth

highlighting that the difference between monolingual and bilingual children's skills in any language may depend on how much of that language the bilingual child hears.

As regards the effects of acquisition age on bilingual development, Marian & Kaushanskaya (2007) indicates that early bilingualism is crucial for modification of the underlying cognitive system by the linguistic experience.

Children are born ready to learn a language or languages of their environments without confusion or delay (Werker & Heinlein, 2008, pp. 144-141). In line with such a view, Hoff & Core (2015, pp. 89-99) concluded that in relation to bilingual development, dual language input does not confuse children and learning two languages takes longer than learning one language only; on average, bilingual children lag behind monolingual children in single language comparisons. According to Heinlein & Williams (2013, pp. 96-112), one misunderstood behaviour, which is often taken as evidence for confusion, is when bilingual children mix words from two languages within the same sentence. This is broadly known as code-mixing. In fact, code-mixing is common within 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. Therefore, early bilingualism may not necessarily 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 can be considered unrealistic. Along this line of thinking, Hoff & Core (2015) drew several conclusions from basic research on bilingual development which include: (1) Dual language input does not confuse children, (2) learning two languages takes longer than learning one language only; on average, bilingual children lag behind monolingual children in single language comparisons, (3) a dominant language is not equivalent to a only language, (4) a measure of total vocabulary provides the best indicator of young bilingual children's language learning capacity, (5) bilingual children can have different strengths in each language, and (6) the quantity and quality of bilingual children's input in each language influence their rates of development in each language. According to Paradis, Nicoladis, & Genesee (2000), 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. 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 (Paradis, Nicoladis, Crago, & Genesee, 2011); (Pettito & Holowka, 2002). In other words, bilingualism may not necessarily result in language development problems. On the contrary, bilingualism is a way to promote successful early development, even though in some cases, where families are not fluent in a second language, early bilingualism might be unrealistic (Heinlein & Williams, 2013).

LANGUAGE DEVELOPMENT PROBLEMS

It is of utmost importance to differentiate between language delay or disorder from sequential bilingualism. A child learning a second language may normally experience delays and inaccuracies in relation to syntax that monolingual child may not do so. Such a scenario usually results from "learning errors" derived from common underlying, learning strategies (i.e., the methods employed to teach a language to a child) and are not language disorders. Progress in

the first language sometimes may appear to be slowing down compared with that of a monolingual child, but this relative delay may not be notably significant. There may be some periods of language mixing but having solidly developed a language can only help with the mastery of the second language. When first language acquisition stagnates (i.e., usually because of the lack of support for its maintenance), the second language is often developed enough to take over (Fierro-Cobas, 2001, pp. 79-98).

The majority of studies examining language disorders among children have to date focused on children exhibiting specific language impairment (SLI) (i.e., language impairment in the absence of sensory, neurological, or organic impairments). Besides, cross linguistic studies have indicated that patterns of SLI may vary according to ambient language (Goldstein & Ikard, 2010, pp. 61-62). Upon an exhaustive review, Bishop in Verhoeven & van Balkom (2004, pp. 3-5) concluded that, with regards to SLI, at least six different hypotheses can be formulated: (a) impairment in the processes that are involved in converting underlying linguistic knowledge into a speech signal, (b) impairment of auditory perception that influences the course of language acquisition, (c) impairment of the specialized linguistic mechanisms that have evolved to handle language processing, (d) generalized deficit in conceptual development affecting language development, (e) abnormal language learning strategies including hypothesis-testing procedures, and (f) limitations in the speed and capacity of the information-processing system. It is worth highlighting that atypical language development refers to specific difficulties to language, which accompanies another developmental disorder: autism, Williams syndrome, or Down syndrome and the development of reading and reading disorders (dyslexia) (Hoff & Schatz, *Language Development*, 2007, pp. 410-412).

The behavioural characteristics of autism and related disorders may also vary considerably. In this regard, Flusberg, Paul, & Lord (2000, pp. 335-364) argue that one consistent problem area of autism is both 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 the 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 the speakers' 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 materials simultaneously to establish an understand into the 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 characterised by a rather slow acquisition and restricted use of relational word classes. Particularly, they have problems in generalising meaning across settings and, therefore, use certain of these word classes in an absolute rather than relational manner, despite the terms themselves being relational in nature.

A person with mental retardation is generally limited at least to some extent in six adaptive skills needed for daily living-communication, social skills, academic skills, sensorimotor skills, self-help skills and vocational skills. The overall picture of early language development in children with retardation provides strong evidence pointing to differences, similarities and various delays in comparison to normal children. It has been argued that retarded children may follow a similar set of universal principles in acquisition of word meaning (i.e., not true for

severely and profoundly retarded children). Similarly, there are broad similarities in the kinds of phonological errors made by these children and those in normally developing children. Such a development appears to suggest the universal aspects of speech articulation process. Furthermore, it is seen that retarded children acquire syntactic and morphological knowledge in the same order as the normally developing children (especially in the early stages). With regards to pragmatic skills, children with intellectual disabilities acquire basic pragmatic skills, however, more subtle aspects of conversational competence are less commonly displayed (Pruthi, 2007). In this regard, Memisevic & Hadzic (2013) revealed that children with intellectual disability may have even higher risk of developing some type of speech and language disorder. Intellectual disability per se has a detrimental effect on language development. Speech and language disorder is one of the main traits which, if not attended to at an early stage, can have a long-lasting negative effect on the child's development. The need for speech therapy for children with intellectual disability is repeatedly emphasised in various studies as it is capable of culminating in significant improvements in the adaptive, social and academic areas. Of course, as is the case with many other treatment modalities, speech and language therapy should begin as early as possible, ideally at the age of preschool, and should continue throughout the child's formal education.

METHODOLOGY

As it was mentioned earlier, the present study has employed a case study approach. This study observed and recorded the bilingual development of five young learners experiencing the impacts of early media viewing in a classroom consisting of two language instructors, one tutor, the selected participants and at least four other regular students to gain an in-depth exploration of why early media viewing can counterproductively impact on the dual language acquisition of these young learners, who are selected as the cases of this study. In accordance with the purpose of the research, Nu (7 years), Att (7 years) and Ti (4 years), Ath (7 years), Ka (7 years) and their mothers were selected as participants of the case study.

In the course of gathering data, this study at first addressed the one-on-one interview to the participants' mother. It was carried out before the language intervention sessions by using a guided and open-ended list of questions to gain preliminary data about the participants' historical and chronological language development problems. This study also applied a changing observational role to observe the process and the outputs of language intervention including the method applied and the aids used, participants' responses, gestures, emotion, speech, social skills, pragmatic skills, language skills, communication skills and behaviour. In order to gain deeper insights into participants' bilingual progress in the first 6 months of language intervention, this study used participants' progress reports recorded by ZonaKata tutor and language instructors and learning video records as secondary data and utilised a video recorder, a camera and notes during the language intervention sessions to record data on the site. Prior to taking photos and recording videos, the consent of the participants' parents were sought first. Guided list of questions for interview were 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).

At the stage of analysing the data, this study applied Descriptive and Simultaneous Coding in line with the intentional findings, which are about participants' real problems in their bilingual language acquisition and how the language intervention improves their dual language development (Saldana, 2009, pp. 45-53). The study also analysed the language development condensed into simple categories as language development problems or as natural process of bilingualism. The language intervention involves methods and approaches applied, teaching aids used, instructions given and contextualisation, which can be categorised as input. In the course of language intervention, functional communication skills, pragmatic skills and communication skills are intervened and indicated by the participants' responses which were further coded as ASD/MR symptoms or improper dual language acquisition. The language production of the participants' was categorised as the output of the language intervention (Menyuk & Quill, 1985; Brown, 2000; Flusberg, Paul, & Lord, 2000; Smith, 2001; Romskey & Sevcik, 2005; Rogers, 2006; Troike, 2006; Reicher, 2010; Schwartz, 2010). Participants' comprehension and utterance comprehensibility in *INDONESIAN* and *ENGLISH* were reviewed as measurements of participants' dual language development (Gass & Selinker, 2008; Montrul, 2008; De Houwer A., 2009; Core, et al., 2012; Paradis, Nicoladis, & Genesee, 2000; Paradise, Nicoladis, Crago, & Genesee, 2011). In attempting to answer the research questions of the study, the findings of this study are represented in visual displays such as pictures with captions and illustrative tables. In addition, findings are reported in descriptive and explanatory discussions.

FINDINGS

The initial interviews with parents carried out before the language intervention revealed that all participants experienced both communicative and behaviour problems. All participants have been exposed to television and gadgets since they were below 2 years of age with no parents' supervision. It was also discovered that they all watched videos or movies in *English* and in doing so, they did not have any interactions with people around them so that the only focus they was the media.

In addition, it was also reported by the parents that most people around them used *Indonesian* to communicate. Some parents occasionally used the *English* language to communicate with their children and some of the participants also went to multilingual schools. Participants had difficulties in appropriately and properly responding to individuals who talked to them, especially in expressing their needs and thoughts, and speaking in *INDONESIAN*. They tended to use *ENGLISH* more than *INDONESIAN* in their daily communications. Furthermore, they indicated experiencing difficulties which extend beyond speech and language to other aspects of social communication, both receptively and expressively. In relation to social participation, they also indicated difficulties or differences or both in interacting with people and events. Most of the time, they did not show interests or experience enjoyment of an activity with others as they had difficulties in making and maintaining friends. They appeared to be more interested in objects than people and tended to avoid social contacts with other individuals. They also indicated difficulties in learning and using rules of social interactions with peers, observers, and parents.

In relation to developmental rates and sequences, parents reported that participants have uneven profile of skills – social, motor, sensory and/or learning are unevenly developed. Some

are very good in math and reading skills but poor in motor and sensory skills. In contrast, some others are very poor in reading and writing but good at math and motor skills. All participants did not follow a predictable, “normal” pattern of development, and there were delays or regressions in sensory and social skills. In relation to their cognition, all participants were found to be good in understanding symbols, understanding means to end and cause and effect, time-based information, imitation ability and generalisation. Most of participants exhibited unusual responses to sounds, sights, smell, tastes, touch or movement.

One of the common observations made was that in early sessions of the language intervention, all participants tried to communicate with no emotional expressions in their “planet language” like “blebleblebleble”, “kame...kame...kame”. The only emotional expressions they were good at were when they were expressing their anger and sadness by shouting and crying. They easily misunderstood others, which eventually made them angry, sad and frustrated easily. They got even more frustrated every time they were not understood by others. In addition, they did not give any proper and appropriate responses when tutors spoke in **INDONESIAN** to them. They only responded when tutors asked yes/no questions and optional questions by making an eye contact and nodding or shaking their heads while saying yes or no or choosing the given options. By the time tutor understood what they were trying to utter and attempted to help them articulate the words appropriately, they started to feel at ease in communicating with the tutors. When English and Indonesian were used alternately to communicate with the participants, tutors could communicate more smoothly as participants could comprehend the instructions better and became more understandable, it was at that stage they started to respond in both **INDONESIAN** and **ENGLISH** with clearer articulations.

All of the participants tended to have high self-regulation, good attention span and executive function. The oppositional and aggressive behaviour occurred only if they started to get frustrated as they were not understood despite having tried hard enough to express their needs and thoughts in their unclear speech. Such a situation led them to get anxious every time they needed to communicate something they did not know how to utter. By the time the tutors could figure out what they wanted and train them how to say the words, they gained back at ease and happily enjoyed the sessions.

The researcher found no deficits in use or understanding of social communications and social interactions in multiple contexts, nonverbal communicative behaviours used for social interaction and social-emotional reciprocity. In addition, the researcher also did not find in the participants, restricted, repetitive patterns of behaviour, interests, or activities, excessive adherence to routines, ritualised patterns of verbal or nonverbal behaviour, or excessive resistance to change, highly restricted, fixated interests that are abnormal in intensity or focus, hyper-or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment. Deficits in developing and maintaining relationships appropriate to developmental level are caused by their difficulties in understanding what others talk about. None of those behaviours occurred when instructional language was delivered in **INDONESIAN** and **ENGLISH** alternately.

| | |
|---|----------------------------------|
| T : Ti mau sandwich? | <i>Indonesian question</i> |
| Ti: Aaaaaa (opened his mouth) | <i>non-verbal respond</i> |
| T : Aaaaam..... yummie. Makan apa lagi? | <i>open-ended question</i> |
| Ti: (took a picture of an apple) Apple (put the apple on a plate) | <i>English verbal respond</i> |
| T : Apel. Ti mau apel? | <i>Indonesian input</i> |
| Ti: Yes | <i>verbal English respond</i> |
| T : Mau pakai garpu atau pakai sendok? | <i>optional question</i> |
| Ti: Sendok..... (put a picture of a glass of milk on a plate) | <i>verbal Indonesian respond</i> |
| LI: You put the milk on the plate? You drink or you eat the milk? | <i>English question</i> |
| Ti: (acting out drinking) | <i>non-verbal respond</i> |
| LI: You drink it, not eat it. | <i>English input</i> |
| Ti: Ya | <i>English verbal respond</i> |

Transcript 1: Two-way communication between the Tutor (T), Language instructor (LI) and the participant (Ti) in a pretend play

| | |
|--|-----------------------------|
| Nu: (doing a word search worksheet) Ini terlalu sulit | <i>Indonesian statement</i> |
| LI: What is so difficult? | <i>English question</i> |
| Nu: Aku tak menemukannya | <i>Indonesian respond</i> |
| LI: Apa yang tidak ditemukan? | <i>Indonesian question</i> |
| Nu: Gelas yang tidak ditemukan | <i>Indonesian respond</i> |
| LI: (still busy training another student how to spell) | |
| Nu: Gelas yang tidak ditemukan | <i>Indonesian respond</i> |
|after a while..... | |
| LI: Mana Nu. Can I see? | <i>Code mixed question</i> |
| Ti: (grumpy) Nanti dulu | <i>emotive respond</i> |
| LI: OK | <i>English input</i> |

Transcript 2. Two way communication between the Language instructor (LI) and the participant (Nu) in a teaching-learning process

Transcript 1 and 2 show that in pragmatic skills, participants showed that they had no difficulties in appropriately responding or doing activities based on the instructions given as long as they understood the instructional language. Most of the time, tutors needed to use ENGLISH as a bridging instructional language along with appropriate gestures and facial expressions. When they spoke, either in INDONESIAN or in ENGLISH, they used telegraphic speech such as “me drink”, “*hitam mobil*”, “*belajar...ayo*”. They also did code-switching and code-mixing in their utterances, for example: “*just belajar*”, “*pohon mangga is big*” the participants spoke ENGLISH more proficiently than INDONESIAN or they spoke INDONESIAN in a scholarly style, not in colloquial style, like: “*aku mengalami kesulitan*” instead of “*ini sulit*”, “*aku tidak menemukannya*” instead of “*tak ada*” and “*mengapa kau menggangguku?*” instead of “*ngapain sih?*” One of the participants was even in the state of translating ENGLISH expressions into INDONESIAN in his utterances, like: “*selamat sore nyonya*” for “good afternoon, madam” instead of uttering “*selamat sore, bu*”.

Upon carrying out 108-hour observation on each participant’s language development during language intervention sessions, the researcher did not find any symptoms of pragmatic, affective and grammatical prosody leading to context blindness and problem-solving disabilities, both of which are the main characteristics of ASD or MR. Having sufficient dictions and repertoire to express what they need and think as well as being able to identify and appropriately express their feelings, participants can get involved in the communication and interact well using appropriate utterances and facial expressions. They can easily joke and be

involved in jokes in their social interaction. Code switching and code mixing occur naturally when they communicate. Challenging behaviors which mostly caused by emotional problems are manageable and lessen.

DISCUSSION

It was found in this study that having been exposed to English through early media viewing, participants were undergoing a process of simultaneous dual language acquisition in their critical period. In this simultaneous acquisition, the ENGLISH language dominated INDONESIAN as they were exposed to media more than interactive communication with individuals around them. Referring to Karshen's view, there are absences of persons who can ensure that they receive comprehensible input. They can easily imitate the NSs' pronunciation, but as NNSs, they were lost in contextualising the language by using appropriate vocabulary and linking devices. Since ENGLISH was acquired almost with no interaction, i.e., only through media exposures, they missed formative feedback, negotiations and recasts that come as a result of interaction. This condition incapacitates them to respond appropriately to other individuals' utterances and to regain their places in a conversation. Moreover, ENGLISH dominance on INDONESIAN has made participants to have deficits in INDONESIAN vocabulary, which eventually caused difficulties for them to communicate in INDONESIAN.

It has to be noted that the challenging behaviour and emotional problems demonstrated by participants occurred as a result of communication failures, not as symptoms of ASD/MR. The failures were mostly caused by them being unable to express their needs and their thoughts for having insufficient vocabulary either in INDONESIAN or in ENGLISH, which is prone to be misinterpreted as language lag. Parents have difficulties in figuring out their utterances which are mostly in poor-articulated ENGLISH. Participants tended to avoid eye contacts to manifest their failure in comprehending the instructional language, not as an ASD/MR symptom. In line with (Fierro-Cobas, 2001), it is of utmost importance to differentiate between language delay or disorder from sequential bilingualism. A child learning a second language may normally have delays and inaccuracies in syntax that monolingual child may not have. It usually results from "learning errors" from common underlying, learning strategies (i.e., the methods employed to teach a child a language) and are not language disorders. Aligning with (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 participants did not have any of those symptoms. In relation to MR symptoms, participants demonstrated no type of speech and language disorder and intellectual disability per se has a detrimental effect on language development. One significant problem is that participants had difficulties in understanding instructional language in INDONESIAN. Moreover, it led to their failure in accomplishing IQ test conducted in INDONESIAN which eventually resulted in relatively lower IQ test score diagnosed as MR while children who did not take any IQ tests were prone to be suspected as autistic.

CONCLUSION

The analysis of the research findings culminated in the conclusion that early dual language exposure through early media viewing without adequate social interaction may adversely result in language development problems which are often misinterpreted as symptoms of Autistic Spectrum Disorder (ASD) or Mental Retardation (MR) rather than being construed as a bilingualism process. It is therefore recommended that appropriate language intervention programs along with adequate social interactions with peers and adults in an inclusive educational setting can really help them improve their dual language development.

It is also suggested that parents avoid exposing their children to early dual language through early media viewing without facilitating them with adequate social interactions. Social interactions with parents or teachers can be considered as the most appropriate to young learners below 5 years of age. This is because formative feedback and contextualisation are very essential to young children's early bilingual development. It is also advisable that parents avoid IQ test for children with language development problems caused by early media viewing before the appropriate language intervention can be considered in order to avoid mistaking bilingualism process for MR symptoms.

REFERENCES

- 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 16*(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 13* (3), 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., Senior, 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*. 18(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.
- Goldstein, B. A., & Ikard, R. H. (2010). Diversity Considerations in Speech and Language Disorders. In J. S. Damico, N. Muller, & M. J. Ball, *The Handbook of Language and Speech Disorders* (pp. 61-62). Oxford: Wiley-Blackwell.
- 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*, 7 (1), 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.
- Hoff, E., & Schatz, M. (2007). *Language Development*. Oxford: Blackwell Publishing.
- Hox, J. J., & Boeije, H. R. (2005). Data Collection, Primary vs Secondary. In K. K. Leonard, *Encyclopedia of Social Measurement, 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*, 18(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), 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*, 130(5), 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*, 24(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 French-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*, (38)3, 554 - 578.
- Pearson, B. Z. (2008). *Raising A Bilingual Child*. Massachusetts: 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*, 3(1), 4-33.
- Reicher, H. (2010). Building Inclusive Education on Social and Emotional Learning: challenges and perspectives. *International Journal of Inclusive Education*, 14(3), 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*, 18(3), 174-185.
- Rutter, M. a. (1987). Autism and Pervasive Development Disorders: Concepts and Diagnostic Issues. *Journal of Autism and Developmental Disorders* June, 17(2), 159-186.
- Saldana, J. (2009). *The Coding Manual for Qualitative Researchers*. London: Sage Publication.
- Schutt, R. K. (2015). *Investigating Social World*. Los Angeles: 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)*, 2(1), 277-284.
- Troike, M. S. (2006). *Introducing Second Language Acquisition*. Cambridge: Cambridge University Press.
- Verhoeven, L., & van Balkom, H. (2004). Developmental Language Disorders: Classification, Assessment, and Intervention. In L. Verhoeven, & H. van Balkom, *Classification of Developmental Language Disorders: Theoretical Issues and Clinical Implications* (pp. 3-5). London: Lawrence Erlbaum Associates, Inc. Publisher.
- 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*, 120(5), 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.