INTEGRATING ENGLISH WITH TOTAL PHYSICAL RESPONSE AS AN EFFECTIVE METHOD FOR PRESCHOOLERS' COGNITIVE DEVELOPMENT

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ABSTRACT

This qualitative naturalistic observational study explores integrating English with Total Physical Response (TPR) for preschoolers' cognitive development. Research is built upon, review of cognitive developmental theorists, stakeholders, teachers' feedback with researcher's empirical knowledge and experience. The right and left brain coordination in cognitive development provides a unifying perspective for this research. In order to accentuate the TPR curriculum, conducive, learning environments, teaching tools and competent teachers are necessary complements to dual-hemisphere collaboration for cognitive development. Qualitative observation of 5 years old, 10 participants' cognitive attributes, through participants' response and perspectives towards this teaching-learning approach justified findings pertinent to research questions. Through this research it has been found that participants are actively engaged in the learning process 50% longer than traditional teaching approaches. Participants' also qualitatively based on third-party teacher feed-back, showed increased capability in participants ability to compose short, meaningful sentences, increased adoption and use of vocabulary, as well as increased motivation towards learning. The implication of this research indicates that progressions in language also translated to improved observable cognitive output such as the ability to respond to questions, asking questions to clear doubts, justified thoughts and opinions, as well as increased attention, retention and recall of knowledge.

MENGINTEGRASIKAN BAHASA INGGERIS DENGAN TEKNIK *TOTAL PHYSICAL RESPONSE* BAGI MENCAPAI PERKEMBANGAN KOGNITIF KANAK-KANAK PRA-SEKOLAH

ABSTRAK

Kajian pemerhatian kualitatif secara naturalistik ini meneroka pendekatan mengintegrasikan pembelajaran Bahasa Inggeris bersama dengan teknik *Total Physical Response* (TPR) bagi mencapai perkembangan kognitif kanak-kanak pra-sekolah. Penyelidikan ini merangkumi kajian semula ke atas teori-teori perkembangan kognitif sedia ada, pihak-pihak yang berkepentingan, maklum balas tenaga pendidik serta pengetahuan empirikal dan pengalaman peribadi penyelidik. Koordinasi di antara bahagian kiri dan kanan otak di dalam perkembangan kognitif kanak-kanak pra-sekolah turut mewujudkan perspektif yang penting di dalam kajian psikologi pendidikan ini. Untuk menyerlahkan lagi kurikulum TPR, suasana pembelajaran yang kondusif, penggunaan alat bantuan mengajar dan kemahiran tenaga pengajar yang kompeten adalah penting di dalam perhubungan dwi-hemisfera bagi perkembangan kognitif. Pemerhatian kualitatif terhadap sifat-sifat kognitif ke atas 10 orang peserta yang berumur 5 tahun, melalui respons dan perspektif para peserta terhadap pendekatan pengajaran-pembelajaran ini menunjukkan bahawa penemuan adalah wajar dan sesuai dengan persoalan kajian. Hasil kajian menunjukkan bahawa peserta menumpukan perhatian dan terlibat secara aktif sewaktu proses pembelajaran untuk sela masa 50% lebih lama berbanding dengan kaedah pembelajaran secara konvensional. Berdasarkan pemerhatian tenaga pengajar pihak ketiga, peserta didapati menunjukkan peningkatan ketara di dalam menghasilkan rangkap ayat yang sempurna, penggunaan perbendaharaan kata yang amat komprehensif serta, secara keseluruhannya, keinginan untuk belajar yang lebih ketara. Implikasi kajian ialah kemajuan yang diperhatikan ini secara langsung memberikan impak yang positif terhadap kebolehan kognitif peserta seperti menjawab soalan yang diajukan, membangkitkan persoalan bagi memperoleh kepastian, mengemukakan pandangan dan pendapat serta meningkatkan tahap fokus, penghayatan ilmu serta mengingat semula ilmu pengetahuan.

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COR	Child Observation Record
ECD	Early Childhood Development
LP	Lesson Plan
PAP	Process Action and Product
RQ	Research Question
TPR	Total Physical Response

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CHAPTER 1

1.1 Introduction

Chapter 1 provides the background of this study which encompasses the academic perspective of what preschool cognitive development is all about and how it can be achieved in relevance to education and human development. This chapter then highlights the statement of problem, research questions and objectives, followed by the significance of study and definitions of terms used contextually throughout this study. Finally, this chapter reveals the theoretical as well as empirical knowledge gathered and utilized, pertinent to this research which aims to, educate, facilitate and produce preschool thinkers, through integrating English language with Total Physical Response (TPR), as an effective method, and new approach to teaching and learning. The researcher also fundamentally integrates language with movement, which includes theory of action based learning or known as the TPR approach, which was developed by Dr. James J. Asher (2009).

1.2 Background Study

Preschoolers in this day and age are occupied by watching television, playing with electronic gadgets such as their parents' i-pads or smart phones and are becoming sedentary with very little physical activity or movement. As such, it is crucial for preschoolers to be provided with learning activities that encompasses action learning or activity based, movement related learning involving both hemispheres of the brain in order for them to learn effectively as this will allow enhancement of their cognitive development. Research shows that reducing play time in preschools and kindergartens to increase learning as being counter-productive (Blakemore, 2003). Previous studies reaffirm that active play is vital to cognitive development in preschool aged children and that poor motor development can actually inhibit academic learning.

Cognitive developmental research in psychology of learning supports the idea that learning is an integrated process, whereby it is a process focused on constructing meaning, and a process largely dependent on the ability to think to communicate. In order to educate and produce preschool thinkers, integrating English language with Total Physical Response (TPR) as an effective method need to be practiced and applied by equally qualified, well trained and competent teachers in a conducive, positive environment to create learners who would be nurtured towards cognitive development. Asher 2009suggestedthat preschoolers actually enjoy and learn best through movement and hands on activities. In "Children Learning another Language",

employing TPR is seen as a keen motivation that leads to genuine achievements amongst young learners (Asher, 2009).

The first few years of a child's life equals a time of rapid brain growth. Every neuron in the cerebral cortex comprises of an estimated 2,500 synapses and by the age of three, this number grows to a whopping 15,000 synapses per neuron. Through the most intensive time of brain development, of a young child's life (3-5 years of age), a child needs adequate right and left brain stimulation to help his/her brain to forge neurological pathways that will significantly stimulate the frontal lobe of the brain, thus laying the foundation for emotional development (joy for prolonged learning) as well as cognitive development (ability to know, think, retain and recall).

Young children rely on care givers, nature and nurture, to provide them with opportunities and experience for language acquisition, learning and practicing language. Nevertheless, a generation ago, kindergartens were deemed to get children ready for school. However, to emphasize the importance of school 'readiness', preschools are building foundations before kids get to kindergarten. Failure to encourage and provide these opportunities can lead to significant delays in cognitive development as it weakens the neurological pathways of a child's brain.

As such, it is strongly believed that by providing lessons such as integrating English with TPR, preschoolers are then inspired by the natural language acquisition strategies, like that of L1 acquisition, or mother- tongue acquisition will respond and

express in the classroom in such a manner indicating cognitive development. This new method emphasizing movement with language applying together with the natural language acquisition L1 strategy allows preschoolers to experience an explosion of cognitive development as they progress through learning and begin to develop math, science, reading, and other academic skills. They tend to learn more about the world around them as they grow into confident learners at school as well as outside of school. In Piaget's theory, children cannot merely copy and store what their teachers say, but they act upon the world, first through literally knowing the new knowledge by grasping it and absorbing it, then symbolically through language, and subsequently, logically, through a combination of testing, experimenting, questioning, and reasoning, and finally, through the concrete world and with the insertion of formal logic of science and algebra (Jean Piaget, 1896–1980).

The three main areas of focus in this research are, a) the importance of cognitive development in preschool classrooms, b) the importance for preschools to provide appropriate learning curriculum by integrating English with TPR as an effective method in preschool classrooms, thus creating a conducive environment and producing competent teachers to deliver action based lessons for preschoolers' cognitive development and, c) the potential benefits to preschoolers by integrating English with TPR as an effective method in preschool curriculum. The three main areas of focus mentioned above in this research are discussed in detail below;

a) The importance of cognitive development in preschool leads to the need for new approaches in learning for preschoolers. Dr. Jeannet Vos mentions that, “How every child develops a unique talent depends, on the way nurture builds on nature”, as stated in her book, Unlimited; the new learning revolution and the seven keys to unlock it (Vos, 2008). Constructive educators who understand the preschoolers’ unique ways of seeing the world around them will be more patient and appreciative of apparent mistakes which will more likely explain their expectations and rules in making sense to the preschool learners. Educators must be able to provide conceptual learning environments like how the young learners learnt their first language or mother tongue (L1), without using grammar as the focus. The (L1) language learning environment is provided by care caregivers with conceptually aided real world situations where the young learners learn by listening, observing, imitating, responding and doing actions through movements, nods or gestures.

b) Taking children seriously is to value them right now rather than seeing them as adults-in-the-making. Thus, what they do should have horizontal relevance and it ought to be meaningful to them at that point of time. The only justification for learning something is for learners to know something and later, apply it appropriately when time permits. Studies on learning cognitive development and teaching have highlighted the importance of learning based on relationships of the learner and the learning environment (Fu, 2000). Cognitive development emerges as a result of physical activities engaged and shared in an environment that connects the young

learner to materials, tools and symbol systems learning (National Research Council, 2000)

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The importance of this new approach for preschools is that formal education begins at the preschool stage (years 3-5), where young learners, need to learn and must socialize in a multicultural, and with bilingual peers in a nurturing and playful environment with the main focus being cognitive development. This is where, teachers in classrooms must be able to provide different approaches as well as use various effective strategies to meet an individual child's strengths and weakness.

Such abilities would most likely be applicable by integrating English with TPR as an effective method for preschoolers' cognitive development, through the application of effective and appropriate strategies by preschool educators. These are then expected to, contribute by stimulating both the right brain and left brain of the frontal lobe where thinking skills are generated, cultivated and projected , making it most successful in producing preschool thinkers.

In Malaysia, government monitored non-profit early education programs, which are generally located in rural areas, emphasize more on socio-emotional developments and focus less on academic achievements. Whereas, non-governmental for-profit preschools are usually established in urban areas, and heavily emphasize academic aspects (United Nations Educational Scientific and Cultural Organization

(UNESCO), 2000). Public early education programs are free to parents and fully funded by the government, but private early education programs are not free and their administrators are at liberty to choose the curriculum and medium of instructions to be used in their establishments (Majzub, 2003). Even though guidelines from the Ministry of Education serve as the base for curriculum for children of 6 years of age, there are no specific curriculum guidelines for children aged 3 to 5.

In Malaysia's semi-urban and rural preschool classrooms, learners are being taught monotonously to sit at the desk to colour into books, to write alphabets and numbers, to cut-out pictures, to sing some nursery rhymes, and etc. This is widely considered, a teacher centric and conventional method and has been long discarded by generators of preschool curriculum and syllabus of the developed world. The educators of the developed world are currently, using much improved and effective workable methodologies by integrating language learning with movements, such as TPR, to enhance cognitive development, so as to produce thinking young learners.

At present, the new model preschools, known as the National PERMATA Pioneer Project was implemented in 2007 as a result of observations made on early childhood education and care programmes in developed countries such as France, United States of America, Australia and New Zealand where, emphasis is placed on learning through play. It is a method of learning that is enjoyable and based on children's natural inclinations. This is the 'brain child' of Datin Seri Rosmah Mansor

in Malaysia, who regards the importance of cognitive development at preschool levels (Aminah Ayob *et al*., 2008).

Teaching preschoolers effectively takes a lot of strategic preparations to cater for these young learners to develop fine motor skills and cognitive skills which, they can apply in enhancing their learning through knowledge based activities and fun filled games in the classroom. The preschoolers consequently need adequate right and left brain stimulation to help their brains forge neurological pathways that will significantly stimulate the frontal lobe thus, laying a concrete platform for emotional as well as cognitive development.

Effective classroom strategies are equally important for preschoolers' cognitive development. Different preschools employ various strategies and different teaching-learning syllabus and methodologies in order to guide and educate preschoolers when learning. The anticipated precise educational strategy for one child may not prove as effective with another child. Therefore, it benefits to pull together various strategies and to help create new strategies that will fit the needs of an individual preschooler's learning development.

Nonetheless, multiple strategies planned and employed competently to cater for the needs of an individual child can motivate learning and lead to cognitive development which in turn will prove to be a greater success for educating and producing preschool thinkers. One of the reasons for this is mentioned through the

theory of intrinsic motivation which elaborates that, the idea learners are motivated to learn because of internal factors, which is known as the joy of learning. It is also vital to motivate preschoolers to do the classroom activities through action based learning so that they can enjoy the process altogether.

Listening skills are widely considered the key to language acquisition and expressive movement, singing and subsequently reading and writing (Wolf, 1992). Music and songs in English deployed with TPR stimulates the frontal lobe of the brain and helps increase the listening skills in a fun-filled and relaxed manner. Research has shown that during electroencephalogram (EEG), physical action with music can change brain waves and make the brain more receptive to learning thus, enhancing cognitive development. Hence, it is eminent that integrating TPR when teaching English using effective strategies stimulates preschoolers' cognitive development. These strategies can be equally effective when employed in teaching language, math, science, and physical activity in classrooms where, the teacher is committed and well trained to be able to understand the needs of the learners and has the ability to facilitate and deliver the action lessons competently.

Preschool syllabus should cover lessons integrating English with TPR, just as it should be with teaching the main academic subjects, such as math, language arts and science in a very basic sense by being able to provide factual information presented in a mentally stimulating and creative manner, such as in the form of child play. Tate (2010) states that vocabulary induction and promoting phonemic awareness

is crucial for early literacy in alphabetic languages such as English as it demonstrates the ability to link letters or a group of letters with individual sounds or phonemes. Moreover, number consistency repetition, arts and crafts, games, and role-play should be employed while integrating English with TPR to teach preschoolers' basic lessons. This approach of knowledge facilitation will help to stimulate mental process which in return will enhance their thinking skills through cognitive development processes.

Essentially, qualified, experienced and committed teachers are required to carry out such strategies effectively. In reality, preschool teachers emanate into a child's live at a crucial age of development as this is where the basic foundation is built for the rest of a learner's academic future. Through these effective classroom strategies, teachers need to understand and disseminate, by finding real life learning materials. For instance, a strategy that could be deployed is by relating learning through integrating English with TPR as an effective method to teach math, science, music, yoga, story, songs through nature. Such a method encourages the use of props and realia, which are things that learners can visualize, touch, feel and associate with their learning. These strategies help to nurture and enhance the natural enthusiasm and curiosity of the preschoolers towards life, thus, promoting cognitive development which subsequently, produces thinking learners.

As such, the ability to provide a conducive learning environment, an assortment of resources, strategies and techniques are critical for sustaining continued learner interest coupled with the application of, imperative method is a powerful

facilitator of learning. However, only a well-trained and competent teacher will recognize that it should be used creatively and combined with appropriate and effective strategies. The optimal combination varies from teacher to teacher and class to class whereby the imperative drills in English becomes the major classroom activity when employing TPR.

TPR is typically used to elicit or draw physical actions, gestures and responses on the part of learners until conversational dialogues are delayed, roughly after about 120 hours of instructions. Asher's rationale for this is that “everyday conversations are highly abstract and disconnected. Therefore, to understand them requires a rather advanced internalization of the target language” (Asher, 2000).

Moreover, there are other classroom activities to enhance cognitive development, which includes role plays and pretend plays. Role plays and pretend plays should center on everyday situations, such as situations like, schools, playgrounds, supermarkets, zoos, gas stations and etc. Subsequently, reading and writing activities may also be employed to further consolidate structures and vocabulary. As follow-ups to oral-imperatives, commands and drills could be incorporated such as stand, sit, clap hands, thumbs up, salute, walk, skip etc. whereby learners respond through movement and action.

c) The benefits of the new learning approach to preschoolers and the implication of the lack of this new approach to Preschoolers can create a vast gap of

knowledge for preschoolers. Preschoolers who experience the new learning approach gain cognitive developments and become thinkers and preschoolers, while the ones who lack this new learning approach do not benefit cognitively and can lag far behind. The young learners from the urban areas whose parents can afford to pay high fees are privileged to gain higher order thinking skills at the age of 3-5 years old. These learners get to participate and interact with qualified teachers applying cognitive developmental strategies as they learn in a learner-centered, positive and conducive classroom environment. However, those preschoolers whose parents can only afford government aided preschools are left to follow the conventional syllabus which encompasses coloring, writing numbers and alphabets in books, monotonous repetition of the rhymes and songs while staying sedentary on their cluttered seats or on the floor mat.

Theories mention that movement stimulates neural networks and activates mental capacities, which are not activated when preschoolers are predominantly sitting at a desk or are at sedentary. Preschool children are often energetic and need appropriate and positive outlets to express and vent out this energy in a constructive and creative way. These children are more likely to be curious and anticipate well when presented with English language integrated with TPR activities, such as music, games, stories etc.

Hence, by nurturing them to be creative and active, which are the main factors towards learning and cognitive development, it will help to create thinking

preschoolers. (Isaksen, 2011) proposes that the creative process is concerned with the mental or cognitive processing or thinking that occurs as learners use their minds or intellect in novel ways. In this definition, creativity is viewed as a kind of thinking, reasoning, association making, or problem-solving ability which results in many new and original ideas that is associated with cognitive development.

Preschoolers are more likely to join in and enjoy themselves when given the options to participate in activities that, incorporates English language through TPR to learn music, action song, play, math and science etc. Preschoolers are more inclined to learn and retain knowledge regarding language in this manner as their minds are like sponges that absorb extensively when they are engaged in activities they enjoy and are actively participating as the language acquisition takes place. Elenbass (1983) stated that there are three stage of natural language acquisition which is mentioned below:

i. The comprehension stage (preproduction characterized by pointing, nodding, imitating, repeating; ‘parakeet’).

ii. The early speech stage (characterized by yes/no responses and listing words).

iii. The speech emergence stage (characterized by short phrases and sentences without fluency).

As listening ability is the key for speaking ability, the natural approach to teaching-learning starts with comprehension rather than production. Techniques used