

## Rigor and Relevance to 21st Century Learning :

### A Reflection on Early Childhood Teaching

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### Abstract

There are many theories that has been created in the field of Psychology and Applied Linguistics to help the teachers in understanding the needs of the learners in order to have an effective teaching-learning process and long term appreciation of what was taught. However, it is clear that the learning styles of the students also evolve together with the ever changing modernization of the society.

For us to be able to understand the accuracy and consistency of these theories to the real school set up in Nakhon Ratchasima, the experience of Pulumbarit as a teacher was unfold to give an insight on how she was able to relate several theories which has been tested by time to the learners of today. Her background to such studies and how it was used to kindergarten and primary school will make us understand even more that educational theories are used not just because of the desire of the teacher but must also consider the stakeholders where the theories will be applied.

**Keywords :** Bloom's Taxonomy, Multiple Intelligences, Higher Order Thinking Skills, Lower Order Thinking Skills, Behaviorism

### 1. Introduction

Education refers to the systematic process of gaining knowledge and skills through study and instructions. As teachers guide the students to learn, teaching does not only apply to the intellectual aspect rather the impact must be visible holistically. Education takes a broad view of life; it encourages the intellectual and moral approaches of life. Therefore, it is a must to take into consideration the process of teaching, the process of learning and the skills or knowledge acquired during the process.

#### 1.1 Rationale of the Study

According to one of the Influential Models of Curriculum Development, Ralph Tyler's Ends-Means Model (1949) cited in Hlebowitsh (n.d.) focuses on the learners as the primary bases of curriculum development as they are the reason for its being; whereas it must suits their level of development, characteristics, needs, interests, ability level and motivation. Theories in education has been widespread

learned by educators which were proven to be the effective foundation before stepping into the teaching-learning process for us to be equipped with prior knowledge on how kids are meant to learn.

### 1.2 Objectives of the Study.

The purpose of the study is to reiterate the credibility and dependability of different theories in Education after being applied and evaluated in real life situations, comparing the previous experiences from Philippines and in Thailand. Doing so, we will have an idea on how to improve the quality of Education that schools can offer because there will be cognizance in kindergarten and primary school set-up. Also, it is a goal to give awareness that even though these theories were created outside Southeast Asia, the theories are still applicable in Thailand through proper knowledge and understanding on both the theories together with the needs and background of the stakeholders.

### 1.3 Scope of the Study

The study aims to discuss that there are many theories that has been proven to be applicable in different school setting. Moreover, considering the learners where these theories will be applied is vital. Pulumbarit would like to share her teaching experiences and aims to give an impression that several theories are still applicable and effective in providing lifelong learning.

### 1.4 Terms

Psychoanalytic Theory (Sigmund Freud 1856 to 1939) cited in McLeod (2018) focuses on social and emotional development. It is the early experiences and unconscious emotional conflicts can gave a dramatic effect on the developing personality. Psychosocial Theory (Erik Erikson) Characterized by “conflict or crisis” that the individual must successfully resolve in order to develop a healthy direction. Cognitive Development (Jean Piaget) He views children as constructivists and curious active explorers who respond to the environment and work harmoniously with peers and with himself/herself. Cognitive Development (Jerome Bruner) *Language Acquisition Support System (LASS)* means the human mind gains inputs through the senses, processes them through cognitive abilities and produces outputs employing languages and creative expression. Moral Development (Lawrence Kohlberg) is the moral development of each successive generation is of obvious significance to society. Zone of Proximal Development (Lev Vygotsky) is the gap between actual and potential development.

## 2. Learning Theories

There are three learning theories that I was able to apply during the years of my teaching in different places. I must say that these theories are the most realistic compared to others because it mirrors the real classroom set-up and the interaction of the learners with their peers, teachers and the environment where learning transpires. They also made me realize how I will continuously manage the students in spite of their individual differences. These theories are the Bloom’s Taxonomy (1956), cited in Clark (2015), Multiple Intelligences and Behaviorism.

## 2.1 Bloom's Taxonomy

Benjamin Bloom (1956) cited in Eisner (2000) is an educational psychologist who developed Bloom's Taxonomy that focuses on cognitive domain of learning. Even though Lorin Anderson and David Krathwohl (1970) cited in Wilson,(n.d.) rearranged the sequence of the taxonomy, the effectiveness of such is still undeniable. According to Bloom's Taxonomy, cited in Clark (2015), it starts with lower order thinking skills- knowledge, comprehension and application followed by the higher order thinking skills- analysis, synthesis and evaluation. On the other hand, the Anderson-Krathwohl revised taxonomy was rearranged the other way around; it starts with the higher order thinking skills-creating, evaluating, analyzing followed by the lower order thinking skills such as applying, understanding and remembering. Anderson and Krathwohl believed that long-term learning contributes more impact to a learner. As I have taught different groups of students, the taxonomy plays a vital role in their learning. It has a positive and negative impact to the learning process which proves that meaningful learning can be acquired either through pleasure or pain.

## 2.2 Higher Order Thinking Skills (HOTS)

In 2012, the use of Understanding by Design (UbD) planning was in trend in Sacred Heart of Jesus Catholic School, a private schools in Manila, Philippines. During this time, HOTS (Higher Order Thinking Skills) are the main plugs to be enhanced. Teachers were trained to be facilitators of learning, minimal guidance exerted during the course topic and provide ample time until the outcome was evident. When students were taught by maximizing their HOTS, it was expected for them to have deeper understanding. This challenged them to think critically and to learn how to ask creative questions as a means of voicing out their curiosity. Students revealed their understanding most effectively when they were provided with complex, authentic opportunities to explain, interpret, apply, shift perspective, empathize and self-assess. All of the objectives were aligned to develop HOTS. However, students' responses showed that both pleasure and pain were realized.

HOTS is the entry point of learning, gradual release of responsibility also takes place. Creating a group activity in large number of participants builds cooperation and teamwork, followed by smaller groups either by threes or partners and individual task takes place as the last respectively. However, there is no assurance that during this course, all members were able to provide their insights and would be acknowledged. An example of this situation happens when the students are grouped randomly. Students count from one to five, all students who counted themselves as number one will be working together and the like. Since they are not grouped according to their abilities and learning styles, fast and average learners would manipulate the group and would conclude their own ideas that would be carried over. More so, the slow learners are hesitant to impart their ideas since the fast and average kids has been moving on a fast phase. As the bigger group becomes smaller groups, that would be the

turning point to provide more ideas. Since the smaller group came from the bigger group who made a fast phasing conclusion of opinions, others would be certain that their contributed efforts are concrete, others would follow what was agreed by most while there will be others who would think theirs is meaningless. Having said that, HOTS is giving pleasure to the satisfactory learners and unprivileged learners takes the pain. It will be a lifelong learning for both because the fast learners were able to acknowledge their ability to grasp the course objective in a gratifying manner while the others would have the lifelong learning because their intuitions were left unknown.

### 2.3 Lower Order Thinking Skills (LOTS)

Lower Order Thinking Skills (LOTS) has been considered as trivial. According to the sub-categories of the revised taxonomy, LOTS are focused on remembering data, understanding facts and carrying out the idea in a different state. These are the skills that were acquired in school systems. In LOTS, information does not need to be applied to real life examples, it only needs to be recalled and slightly understood. As of today, there are instances that might elicit an educator to begin their course topic using LOTS.

The use of LOTS must always be the foundation to move on the higher level of thinking. Gratification in learning must be realized in a higher level. Often times, LOTS is used in early childhood learning process. During this stage, learners are more focused on the simple details their senses would acquire. But then, teachers must also take it as a benefit because LOTS can be used as springboard to the deeper learning outcome. An illustration of LOTS in a kindergarten class could be identify the colors of the toys inside the classroom. In order to use LOTS as springboard to give a deeper meaning and initiate to HOTS, I let the students create a pictograph to illustrate the quantity of toys based on their colors. Also, teacher can insert values formation with the topic by asking the learners what is the significance of classifying things and how doe colors make the surrounding a better place to live.

Lower Order Thinking Skills and Higher Order Thinking Skills work together hand in hand. A teacher may be able to choose one skill from LOTS before deriving to a specific HOTS and the other way around. Even though a teacher has a goal to give meaningful learning to the students, teachers must also take into consideration the readiness of the learners to perceive such learning in different methods. Though it is said that lower order thinking skills are shallow, teachers can always turn it to a positive manner. Similar to teaching the kids on how to read and write, learners must be able to realize that these skills would be their groundwork to comprehend profound knowledge. Variation would be ideal in applying the taxonomy per se. The significance of the variation would impact the students because there will be a wide room for learning. Since the taxonomy is used to create objectives in teaching which reflects on the activities the teacher can use all throughout the process, there should be a clear vision as to what is the expected outcome from the learners connecting the skills acquired, skills to be acquired and its lifelong impact.

## 2.4 Multiple Intelligences

Due to realization of lapses with Bloom's Taxonomy, Howard Gardner (1991) cited in Lane (n.d.) was able to identify Multiple Intelligences (MI). Though both theories are concentrated with the cognitive domain, Gardner reiterated that individual difference is present same as their intelligences that must be addressed and developed. The theory is composed of the following intelligences.

**Verbal-linguistic** intelligence refers to an individual's ability to analyze information and produce work that involves oral and written language, such as speeches, books, and emails

**Logical-mathematical** intelligence describes the ability to develop equations and proofs, make calculations, and solve abstract problems.

**Visual-spatial** intelligence allows people to comprehend maps and other types of graphical information.

**Musical** intelligence enables individuals to produce and make meaning of different types of sound.

**Naturalistic** intelligence refers to the ability to identify and distinguish among different types of plants, animals, and weather formations found in the natural world.

**Bodily-kinesthetic** intelligence entails using one's own body to create products or solve problems.

**Interpersonal** intelligence reflects an ability to recognize and understand other people's moods, desires, motivations, and intentions.

**Intrapersonal** intelligence refers to people's ability to recognize and assess those same characteristics within themselves.

**Existential** intelligence means sensitivity and capacity to tackle deep questions about human existence such as, What is the meaning of life? Why do we die? How did we get here?

In Thailand, it has been a practice that Kindergarten schools should utilize these intelligences in order to transfer knowledge. Ban Kun Nu Kindergarten, a multi-lingual school in Naimuang district of Nakhon Ratchasima who caters almost five hundred learners are commonly proficient with four intelligences; visual – spatial, verbal – linguistic, musical and bodily kinesthetic. These could be the usual response of teachers if they will be asked if Fun Learning is defined.

### **Visual – Spatial**

Since this intelligence is the primary skill that is being developed to all learners, the teachers of Ban Kun Nu is making its way to give more twist to have the attention of the kids in tact during the learning process. Big, colorful visual aids such as prints and real life objects are used in this manner. It has been also a practice that the learners in the said school makes their own visual aids from scratch so that

can ensure that the experience in learning becomes more meaningful. There are even times that parents are taking videos and posted them on social media showing how kids tell stories of the learning activities and talking about their lesson using the visual kids they created.

#### **Verbal – Linguistic**

This is commonly associated with the Visual – Spatial intelligence that is being developed to the learners at the early stage of their schooling. Since it has been part of the school curriculum that kids must be able to speak out both in Thai, English and Chinese languages, it is a practice that they should have a well-developed skill in listening and speaking. These skill is the basic means of expressing their thoughts and understanding so it must be routinely practiced.

#### **Musical**

Music makes gives hype both to the teachers and the learners. Integrating music when teaching is a very effective means in the teaching and learning process since kids feel like the beat is making everything fun. Teachers in Ban Kun Nu Kindergarten are changing the lyrics of a song and associate it with their topics. Doing this, kids easily remember what they are learning together with the beat. Since children at this stage are hyperactive, it can be used for them to learn. Video presentation, sing and dance or speech practice using audio recording are the streamlines. When the teacher use these activities and the like in a repetitive manner or the activity does not give significance to the lesson, students will find ways to do something new.

#### **Bodily - Kinesthetic**

This behavior is usually judged as not being cooperative, however I always consider each kid's response based on what is expected for them to do. For example, my Kindergarten 3 class which is composed of 18 students are learning in an authentic way. When I asked the students to pick up the pieces of paper on the floor while singing Bits of Paper, kids will happily follow. If I ask them to sing and do the action of the same song on the next day, 8-10 kids will show laziness since there are no papers to be picked and others will show lack of interest because there was no distinction with what was told for them to do for these several occasions. On the same thought during speech class, when I am practicing the kids for CVC drills, the students might be able to say the words with proper enunciation but there will be a shallow learning since the kids were only taught on how to sound out the letters and not with what the word's meaning. As they step to the childhood stage they will start to direct their interest in a different way.

I started the semester of my first graders from Metapaht Primary School which is composed of eighty students by letting them assess themselves. I asked them to write five activities that they like to do inside the classroom and justify their answers.

Based on their response, sixty-four of the class prefers kinesthetic activities, twelve are into musical and the remaining four are those who favors on spatial. Even though the response showed a

clear data as to how they wished to be taught, discovering unlocked intelligence to the children can be integrated.

During the activity in Science – Living and Non-Living Things of the said first graders in Metapaht Primary School, students were brought to the school grounds to observe and note details. I gave an instruction for the children to list down five things that they things that they can see, hear or touch. They have to identify in a table if those on their list grows or not. Doing this makes them appreciate and connect themselves to nature - which is the concept of Naturalistic intelligence. On the same activity, Interpersonal intelligence is being measured as to how they are willing to work in groups, interact in discussion to come up with one answer and to understand other people's point of view with sincerest appreciation. More so, Logical – Mathematical intelligence can also be measured by letting others interpret date though figures. Choosing the specific task in a group activity must be voluntary to determine the unlocked intelligence that has a potential to be developed.

Existentialism, Spiritual and Intrapersonal would be too complicated to develop from early childhood pupils until the first three levels in primary schooling. As defined, Existentialism points out the human existence, Spiritual intelligence is derived from spiritual parallels of intelligence quotient (IQ) and equation quotient (EQ) that focused on the well-being of the universe and all who live there while Intrapersonal intelligence is the ability to outcast oneself and dwell on their own instincts, wisdom and strong will. Having said that, Existentialism as an intelligence usually occur on fourth graders. As I have handled such class, they tend to look for answers for deeper meaning of their existence. Most of the students who develop this thinking are triggered by a devastating experience caused by their surroundings. One of my students from Sacred Heart of Jesus Catholic School asked me, "Why do I have to be a part of a broken family?" This was a clear representation of questioning her presence to an unwanted situation on her life and would want to have a deeper empathy on her situation.

Although spiritual intelligence (SQ) has been an emerging topic among social and organizational scholars in recent years, there have been serious academic discussions on whether SQ is an elusive construct, on its dimensionality, and on whether it should even be considered an intelligence in the first place. Proponents of the SQ construct have argued that it is distinct from traditional personality traits and general mental ability and that it is a meaningful construct that can be used to explain various psychological and managerial phenomena.

Intrapersonal Intelligence on the other hand has its advantage and disadvantage. Its advantage is that a learner can learn by themselves through internalization and self-reflection, they are good in determining their own strengths and weaknesses. Though this might be a good skill, it also generate the sense of being egoistic and separating oneself to others. It will cause difficulties to the learner if this skill will be fully developed and primarily used in the process of learning.

### C. Behaviorism

Since deeper learning is essential, behavior of the learner must be well-thought-out. On top of that, learners behave based on how their surrounding reacts with their action. Burrhus Frederic Skinner (1938) cited in McLeod (2018) created the Behaviorism Theory based on his belief that human free will is an illusion and that any human action is the result of the consequences of the same action. According to Skinner cited in Berger (2005), Operant Conditioning separates itself from classical conditioning because it is highly complex, integrating positive and negative conditioning into its practices; whereas, classical conditioning focuses only on either positive or negative conditioning but not both together.

#### Operant Conditioning

In my kindergarten class at Ban Kun Nu Kindergarten, operant conditioning shows a normal stimuli-response pattern. Every morning during the first month of the semester, I told my class which is composed of 18 students to bring out their milk from their bag and place it in front of their locker. Since there was a stimulus given, the expected response was visible. I intentionally skipped informing them for several times to assess if they were able to grasp the routine without my command. As a result, eight students showed positive response and brought out their milk. On the other hand, the remaining ten students in the class did not able to provide the expected response because they were expecting a stimuli to prompt them and react accordingly. As I reminded the kids on the next day to bring out their milk, they expected response from the stimulus was perceived until it was learned. This is a good representation that through operant conditioning, students though many practice can acquire learning.

Nonetheless, operant conditioning can also be reiterated to the student's response with the teacher's stimulus. For example, one of my kinder 3 student in at Ban Kun Nu Kindergarten has dyslexia - a learning disorder wherein the student write the letters backwards. Either pleasure or pain will be used to correct the disorder, both initiated a positive and negative response. At the beginning of the remediation, reinforcement was provided by giving varied activities to correct his skill, there was an increase of positive behavior by following the correct instruction due to further guidance provided to the learner. However, even reinforcement can prompt negative response. In this case, the learner is following the correct behavior to escape from the repeated instruction provided to him and the worst scenario was he showed active avoidance to keep himself away from the repeated instruction because it turned out to be unpleasant in his favor.

Since reinforcement falls on pleasure, pain can be reflected in giving punishment which gives positive and negative result as the behavior decreases. In the same case, positive punishment decreases behavior by adding unpleasant stimulus following the behavior. This means giving repeated instruction which was not favor to the learner's style to carry out learning. As the positive punishment went on, the learner did not appreciate it any longer so the positive punishment became intimidating. Negative punishment decreases behavior by removing the desired repeated instruction based on the kid's learning

style. Therefore, whatever the stimulus is being transmitted to the learners, they can respond in a positive or negative way. Hence, during the process of operant conditioning, positive reinforcement increases the behavior through the presence of the stimulus while the absence of the stimulus increases the negative reinforcement. Under the negative reinforcement, escape shows the stimulus is removed and the avoidance prevents the stimulus. On punishment, positive and negative is similarly defined with reinforcement however it decreases the behavior of the learner.

Though Skinner's theory made sense to real classroom set-up John Watson's and Ivan Pavlov's theory in behaviorism (1913) cited in Weibell (2011) showed similarities and differences to one another. Based on my personal experience using Watson's, I realized that his theory is more of practicing strengths and complex behavior comes about through the combination of identifiable human reflex. In short, everything the learner does is always based on what he is anticipated to do so. This means that if my kindergarten fast learner is asked to sequence the number from least to greatest, her response is based on what she was told to do as she looks forward to get recognized and will get a sticker after providing all correct answers. This proves that Watson's explanation to relationships between antecedent condition (stimuli), behavior (response) and consequence (reward, punishment or neutral effect) is also applicable to real classroom set-up.

### **Classical Conditioning**

Ivan Pavlov's theory in Behaviorism (1890) cited in McLeod (2018) evolves in classical conditioning. His theory is more of a new behavior through the process of association. It means two stimuli are linked together to produce new learned response in a learner. Based in the three stages of classical conditioning, even before the learners go to school, learning already occurred. That is why when the kids started studying with me, they already know how to express their feelings if they are happy, sad, scared, etc. These are the responses gathered based on the natural response they have to show based on what was unconditionally taught by their environment. In a nutshell, this is the response that comes out naturally. There will be instances wherein as the learners are taught to intensify the feeling of happiness, sadness and the like, learning takes place as they apprehend that their prior knowledge can reach to extent. For example, learners from Ban Kun Nu Kindergarten knows that happiness can be expressed through smile or laughter, during conditioning I was able to associate hand movements, jumping or dancing to show intensified feeling of happiness. Likewise, when a kindergarten student brought a leftover chocolate by his sick elder brother, it produces a response of nausea since the chocolate carries a virus. This is a good illustration of after conditioning, the conditioned stimulus (chocolate) has been associated with the unconditioned stimulus (virus) to create new conditioned response (nausea). In another classroom incident at George Mueller Christian Academy, my third grader student overheard his parents cursing at home so when he imitated his parents while he was in school, his classmates were disappointed with his words. In this situation, the conditioned stimulus was the student who overheard

his parents cursing, the unconditioned stimulus was his acquired act of and the conditioned response was his classmates' reaction in the incident.

Based on these facts, I can conclude that Bloom's Taxonomy and Multiple Intelligences are the most realistic theory that puts rigor and relevance to the 21<sup>st</sup> century learning. As a teacher who have taught different levels and different schools in the past few years both in Philippines and Thailand, I was able to realize that I must always consider the learner's style of learning before I set my teaching-learning goals. Though it is my responsibility to maximize their potential, I want to make sure that my teaching would give an impact to the learners. I know that as much as I want to make my learners ahead of the others, it will still matter if I check their readiness and learning capabilities before I set my own techniques in teaching a specific topic. I never fail to try as much styles as I can in teaching wherever I go or whoever I teach because it has been also my strategy to keep myself updated as to which of the theories I learned are still applicable and should be set aside.

### **3. Summary**

#### 3.1 Teaching Experience in Ban Kun Nu Kindergarten

When I started teaching in Ban Ku Nu Kindergarten, I am overly excited to apply all the strategies I learned when I was in college because BKN gives the teacher the freedom to apply their strategies and techniques in teaching. There are advantages and disadvantages in doing so, however I took it more of an advantage to experiment on the theories that I believe are more applicable to others. That is how I was able to come up with the fact that based on my teaching experiences in BKN, I realized that the learners, in spite their individual differences can develop their skills in learning as I initiate them by giving them an overview on the expected outcome. Though this strategy is not practiced all the time since having variation is one of my objectives, using the Bloom's taxonomy makes them realize that the art of questioning and critical thinking derived from the taxonomy makes the learning process more meaningful for them. It is also an advantage for me as a teacher that the school is really advanced in teaching English language and the integration of the English to other subjects is mandatory because it makes the teaching-learning process easier for both the learners and for me as a teacher.

The most effective and primary theory that I am using in Ban Kun Nu Kindergarten is Multiple Intelligence. MI allows the kids to grow and learn based on their interest. This seems to be challenging at the beginning but this is very beneficial to the learners are they are not limited to study based on their capacity. I believe that Ban Kun Nu Kindergarten, regardless of its restricted space, ensures quality in education and the student's outcome. As a teacher, I want my students to reach their maximum potential so that they will be ready to face real-life situations. I think that should be the goal of other teachers and schools too. I am proud to say that I am not relying all the activities, lessons on the books and internet but make sure that what they are learning are applicable to the real life set-up especially here in Korat.

### 3.2 Teaching Experience in Metapaht Primary School

Recently, I was fortunate enough to design the curriculum of Metapaht Primary School in Nakhon Ratchasima, Thailand. Since Thailand is one of the participating countries that promotes collaboration and teamwork among other members of ASEAN who aims to establish a strong alliance in pursuing undertakings that lead to sustainable development, I used this as a core value of the curriculum that no child should be left behind. The implication of this is that all of the differences of the learners are acknowledged and addressed based on their needs, that is where MI enters. After which, Bloom's Taxonomy can be used in setting the goals. Teachers are guided with action words to be used in setting the goals for the learning process which are classified to what skill wants to be developed. Since differentiated instruction is the combination of MI and Bloom's Taxonomy, I reiterated that in the process of deeper learning must begin from the formation of the heart, formation of the mind and formation of the body.

The formation of appropriate values, character and discipline of the learners as they interact with people, nature, animals, objects and the like around them. The ability to recognize and reflect on responsible decisions that affect oneself and others. The preservation of Thai heritage and culture that are contributory to their well-being and in becoming responsible members of the society. Learners live their spirituality to the fullest at home, in school or in the community. Just like what Aristotle once said, "*Educating the mind without the heart is no education at all.*" The formation of cognitive skills that are contributory to the development of communicative skill, critical thinking skills, problem solving abilities, collaborative or teamwork skills, and other life-long skills that will truly help learners become active, responsible and self-giving members of the family, society and global community. The development of all faculties of the mind that empower learners to co-exist harmoniously with people from all walks of life anywhere, everywhere, in the whole world. A healthy body results in a sound mind and is the means to a healthy living. This formation puts premium on having a healthy body that allows one to participate in various day to day activities. A body that participates in a lot of physical activities such sports, arts, and other humanitarian endeavors of reaching out. Learners respect the body as the temple of one's fullness of life.

I say, No Child Left Behind, emphasizing my intention that every child in the classroom learns to the fullest. I see to it that attention is given to every child in the classroom and that individual needs are being addressed. Such intention will be made possible through the use of those realistic theories that make learning highly interactive between and among children. I believe that ensuring what a student learns, how he or she learns it, and how the student demonstrates what he or she has learned is a match for that student's readiness level, interests, and preferred mode of learning makes the "deeper learning" come to reality.

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