

Tools of the Mind: A Path to Build Knowledge and Construct Language through Play

Tools of the Mind: Una vía para construir conocimiento y lenguaje a través del juego

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ABSTRACT

“Tools of the Mind” is a Project created over the last twenty years. The core of this program is Vygotskian ideas about how to develop cognitive and literacy skills in young children. This has been a work in process plan that focusses on the acquisition of self-regulations, focused attention, as the critical skills that help young children to learn how to learn. In addition, the philosophy of the “Tools of the Mind” Curriculum is to conduct the children to build the foundation for later academic learning through specific skills development that involve symbolic thinking and the increase of early language and literacy concepts.

Keywords: “Tools of the Mind”, Constructivism, Scaffolded Writing, Play Planning, Vygotsky.

RESUMEN

“Tools of the Mind” es un Proyecto en cuya creación se ha trabajado durante los últimos veinte años. Dicho proyecto se constituye sobre la base de las ideas de Vygotsky acerca del desarrollo cognitivo y las destrezas de lectoescritura en los niños más jóvenes. El proyecto se ha ido modificando teniendo en cuenta la adquisición de habilidades en los niños para aprender a aprender, con autonomía, mediante una filosofía que trata de inculcarles el pensamiento simbólico y el de la lectoescritura.

Palabras clave: “Tools of the Mind”, Constructivismo, Andamiaje de la escritura, Planificación del juego, Vygotsky.

One of the biggest challenges for ESL teachers nowadays is to incorporate grammar and vocabulary into their lessons, promoting the acquisition of the second language in a meaningful context for students who are motivated to learn different subjects in the target language. We are referring to a complex process that involves many variables in it. For this reason, the perspective on how to approach the teaching methods and strategies, in order to achieve a successful learning has changed constantly through the last decades.

In many occasions, there has been discrepancies between linguists, psychologists, researchers and educators about what will be the appropriate methods or techniques for the implementation of the “Perfect Teaching/Learning Tool” that will lead our second language learners to construct their knowledge either based on repetitions, memorization, grammar or using own experiences through motivation and/or active participation.

In the 1940 and 1950 decades, the Structuralism/Behaviorism theory established that individuals learned by the use of memorization, defining the learning as a passive process that responds to environmental or external conditions or stimuli: “any notion of “idea of meaning” is explanatory fiction, and that the speaker is merely the locus of verbal behavior, not the cause”. (Brown: 9) In the other hand, the Rationalism and Cognitive Psychology, in the decade of the 1960 remarks the importance of motivation or emotive behavior in second language acquisition: “What were the person’s motives and psychological state, what might have been the cause of the behavior, and so on” (Brown: 11).

In contrast with the structural linguistics and the behavioral psychologist theory, the Constructivism approach appears in the last part of the Twentieth Century, moving away from the reinforcing behavior and the universal grammar concepts, the new school of thought will be represented by Jean Piaget and Lev Vygotsky. Constructivists assert that all men and women construct their own translation of reality, and consequently multiple different ways of describing are identically legitimate (Piaget, 1972; Vygotsky, 1978).

According to the constructivist perspective, children construct their knowledge and develop language through either environmental or social interaction. Piaget and Vygotsky supported the idea of “and emphasis on active process construction [of meaning] attention to text as a means of gaining insights into those processes, and the nature of knowledge and its variations, including the nature of knowledge associated with membership in a particular group” (Brown: 11).

As schools of thought have come and gone, researches are discovering an interesting picture of possible methodology and strategies for the foreign or second language learner classrooms, developing revolutionary methods such as the Audiolingual Method (ALM) of the late 1940 and 1950, that assumed principles from the Direct Method, far from the Grammar Translation paradigm. (Harmer: 79-80) By the 1970 decade, the relationship between theoretical discipline, teaching methodologies and psychology turns especially evident, providing special attention to the value of group work

and interpersonal relationships and looking for more specific answers to the nature of communication and for more appropriate strategies for of the development of interactive process of language acquisition. Researches and teachers moved beyond the typical patterns, teaching rules, memorization and definitions to begin teaching the students to communicate genuinely spontaneously and meaningfully in the second language.

There are many research based methods to teach languages in context, but maybe the most important aspect is to realize that there is no “instant recipes” when learning a second language. No fast or easy method will guarantee the successful classroom, but the best methods will be those that are based on the students as a unique learner that is dealing with a unique context.

Pre-Texts (Pre-Textos) is one of the interactive methods for “language and culture learners” created by Professor Doris Sommer, from Harvard University. This program intents the students to acquire knowledge in a meaningful and ludic context. It is a teacher-training plan with a flexible approach to comfortable ways for teaching in order to develop avid and creative students, users and readers of a language. This method has been described with specific details in prior sections of this publication (Letral: Agentes Culturales). (Suárez Trejo: 124-139, Prince: 192-205, Duarte Riascos: 127-140). Doris Sommer assures that “los maestros son agentes culturales que multiplican las lecciones que aprenden al acceder a grupos de estudiantes, cualquiera que sea el gusto que impere en el arte” (Sommer: 129).

“Tools of the Mind” is another example of a very interesting project developed during the last twenty years and it is a research based curriculum inspired on the Constructivism approach, created by Deborah Leong, professor at Metropolitan State College of Denver and Elena Bodrova, a researcher for *Education and Learning*, Ruth Hensen, TOM teacher and consultant, Amy Hornbeck, from the Institute of Early Childhood Education Research at Rutgers University and Susan Burns from Mason University. This group started working with model Pre Schools and Kindergarten classrooms to conduct small testing and experiments to discover which activities work best with children. As any other good research, the development of the activities and methodologies in the curriculum has been an on-going process that varies depending of the experiments results.

As I was working as a preschool teacher at Passaic Public School # 16 in the year 2001, I became part of this project. It was a pleasure for me to be selected to participate in a “Pilot Program” that was inspired in the Vygotskian ideas about how to amplify development in young children. I founded very interesting the fact that the goals of the curriculum were to “underline cognitive skills as well as the development of self-regulations” (Leong, Bodrova & Hensen, 2002: 25). The program was also focused on developing specific skills that had to do with symbolic thinking, de development of early literacy skills and numeracy.

In addition, it was an actual challenge for us to move away from the traditional way of teaching, and starting to promote child initiated activi-

ties, as well as to incorporate “play” to a substantial portion of our day, as part of the instructional time. During the summer trainings, our group of future “Tools of the Mind Teachers” were wondering how could we possibly take our three and four year old children to master Mathematic and numerical concepts, English language, grammar and literacy skills without a lot of direct instructions and a lot activities based on “play.”

September arrived and the new approach took place in our classrooms. Our biggest concern was how to implement a new program based on the development of the English language and literacy skills with a population that was eighty five percent Spanish speaking. As the year went on, I became a certify “Tools of the Mind Teacher” who discovered the importance of dramatic play as a leading activity to develop self-regulations and academic skills for children of preschool and kindergarten ages (Bodrova & Leong, 2007).

As I was putting all the TOM activities in place, I began to understand the concept of “Play” not as the most unrestricted “free” activity, but rather it is a the most desirable activity so that children are extremely motivated to act in different ways, as well as they can develop the ability to self-regulate their behavior, which is the foundation to involved in any other types of learnings. The Vygotskian philosophy establishes that play influences, not just self-regulations, but two underlying skills necessary for later literacy: oral language and symbolic thinking. Therefore, “Play provides the motivating context in which children use oral language with each other. Because children create the imaginary situation, the explicit roles, and multiple themes through language, children often practice their most mature language skills in play (...) children have to use language to negotiate, paint a picture, and describe” (Leong, Bodrova & Hensen, 2002: 47).

In fact, back in September, 2001, all these ideas and concepts seemed too perfect to become true in a real classroom, where children used to play for half an hour, only at the end of the day. At that point, some questions arrived to our minds: How does mature play grow? How do I motivate children to play different roles, multiple themes, creating imaginary and pretend situation that conducts to real learning?

The plan was already developed and the answers were in the TOM manual. In order to promote meaningful, organized and mature play, this program created an original activity named “Play Planning”, as a tool to scaffold play that can be later used by children independently, which includes oral language, reading and writing. Usually, in traditional Preschools and Kindergarten programs, children play in centers for a period of one or two hours a day, without developing any structured plan. However, “Tools of the Mind” discovered an interesting “tool” to help the children create a planning process that will lead to mature play. In some programs students plan their activities aloud before proceeding to “Center Play.” In a “Tools of the Mind” setting, we used paper and markers for the children to draw and write their plans. In this scenario, the play plan is a descrip-

tion of what the child expects to do during the play period: the imaginary situation, the roles and themes.

Play planning was that kind of “magic” activity that involved oral language, writing and reading skills as it reinforced the students motivation to think, plan ahead and share their thoughts to teachers and friends. We, as teachers, realized that it increases the quality of child play and the levels of self - regulations, both cognitive and social.

In order to implement this activity, the class is divided in two groups as the teacher uses effective language to encourage the children to plan ahead their activities during center time. The students will choose a colored clip that represents a center and, on a piece of paper, they will draw a picture of themselves doing the playing in the chosen center. The play plan (piece of paper divided in three sections) will have a line on top for the children to write their names, a space in the center of the paper for the picture of themselves doing something at the center and a space bellow for the dictation of their plan, that in a future weeks will become a representation of Scaffolded Writing, when they begin to write their own plans using a “Sound & Vowel Map.”

Approximately by the fourth week, the play plans becomes a tool for the children to remember what to do in their centers, which makes the activities more and more structure, there is less lack of language when planning and they begin to use private and public language as part of play. At the end of the play period, they had some time to recall what they did at their centers, as the teacher is collecting the clips and asking where they played, as well as plan ahead for the next day. They had also an opportunity to share with each other such things as:

- . My favorite toy was...”
- . What was the most fun?
- . Next time I go I would...”
- . What I played with

By the fifth week, students begin using the Sound Maps for Scaffolded Writing when writing more elaborated messages in their play plans. They are able to recall and read their prior messages, pointing to the words that they wrote, as well as reading aloud their same day writing. On that stage, Scaffolded Writing consists on students drawing lines that represented words in the sentences. It is really amazing how, as they work on their plans, they slow down their speech pausing as each line was written, which proved that print and phonological awareness was finally taking place.

Children also began to try to put letters on the lines, with the help of the sound map, to represent the sound that they hear. The planning lessons moved from play to Scaffolded Writing for most children, although some of the students still needed special support during the planning process to promote play. In fact, the idea of using “play plans” to develop concepts of print/writing and oral language is a clear success. Children were

hearing more and more sounds on their own during their play planning session. The progression was usually as follows: initial sounds, the ending sounds, the middle sounds and the vowels. That was the perfect times for us, as teachers, to start working on left to write orientation and the sweep to those children keep being more independent.

We arrived to what Vygotsky defined as “mature play” (Vygotsky, 1978), therefore, by that time of the year children had enough self regulations to play and develop themes with little adult intervention during center time. In addition, roles became more diverse and children were capable to play more than one role at a time, without depending on props and can “pretend” to have those props, when play were sustained for longer than 40-minute period.

Visitors were amazed when discovered that, in a three and four year old classroom, “children seemed to know exactly what to do without adult direction,” (<http://nieer.org/publications/new-%E2%80%98tools-mind%E2%80%99-curriculum-aims-boost-memory-self-control-and-literacy>). They were able to speak English during Play Planning & Center Play, buddy planning and commenting on it and making sure that the plans include what the buddies will do with each other, with only a few or not disputes and arguments when working in pairs.

As a “Certified Tools of the Mind Teacher”, I came to the conclusion that “Play planning” certainly helped our students to practice using language to discuss the play scenario, to create props and roles for the other players as they enriched and developed language. By the midyear, teachers became facilitators and that was the perfect opportunity for them to prompt the use of new vocabulary and encourage the children to include literacy elements, such as books, pencils, paper, etc., into their play stations. A “literacy-rich environment” is a key of success in a “Tools of the Mind” classroom and mature play reinforces that scenario.

When visiting a Head Start classroom in Denver, Amy Hornbeck expressed:

“I couldn’t believe what I saw at first,” she says. “They all planned out their activities and then they went off and did it. And they did it for longer than you normally see in a preschool classroom. Many teachers wouldn’t even believe me at first when I told them about it. They’d say it would be cruel or harsh to expect kids that age to spend that much time on one thing. But there it was. I’d seen it with my own eyes. The kids weren’t suffering! If anything, they were happier and more focused than most preschoolers I’d ever observed,” she says. “And not one, not even one, was wandering without a purpose. Each one was engaged.” (<http://nieer.org/publications/new-%E2%80%98tools-mind%E2%80%99-curriculum-aims-boost-memory-self-control-and-literacy>).

This type of learning also took place in my public preschool classrooms, at Passaic, New Jersey. We gladly adopted the “Tools of the Mind” approach and we were able to help our children to develop mature language and representation to plan and think before they even started moving

to work at their centers, and our goals, as teachers, was really accomplished. One of the TOM researches commented, as she observed my classroom during morning activities:

Aparicio watches, but rarely takes part in the play unless it is to help the children move their narrative along. "The teachers ask questions and get children to think their way through their roles and expand the narrative," says Hornbeck. "In that way, they scaffold the children's ability, serving as a platform and asking questions so the children can add ideas and language, solve problems and keep on learning."

So it is with Aparicio who only gently asks Emily in housekeeping, "Oh, do you hear the baby crying?" That simple inquiry sparks Emily and Xavier to expand their imaginary roles as parents and move the story along, dress the baby and go to the doctor. "With each question, the children enrich their play and take it to a new level," says Leong. "Or at least, that's the idea." (<http://nieer.org/publications/new-%E2%80%98tools-mind%E2%80%99-curriculum-aims-boost-memory-self-control-and-literacy>)

Nowadays, we are all aware of the fact that early childhood educators have one of the most rewarding and difficult jobs. It is their responsibility to stimulate the children's minds, helping them to discover the world of education and creating a positive attitude towards it. As Language Teachers, we certainly hope to successfully walk our students through the process of learning oral and written language, but, in order to spread and establish the enjoyment and interest towards the academic contents and subjects, it is critical that our children really understand the purpose and importance of these topics that we are bringing into our classes to teach them every day.

As a conclusion, I would state that if our goal consists in creating independent thinkers and learners who are able to self-regulate or self-control themselves, being capable to develop the ability to problem-solve and direct themselves in different situations, instead of depending upon the teacher to complete their tasks or needing the adults to regulate things and/or plan their behavior, then "Tools of The Mind" would be the curriculum that will help us calling upon children to use their minds to understand the world, as they expand social development, enjoy learning new languages, complete their assignments consciously, create and follow plans as they try out new activities and become long life learners.

Play Planning Time / Scaffolded Writing

Children use the Sound/Vowel Maps to complete their messages.



“Play Plans” Evolution. Variations in actual plans.

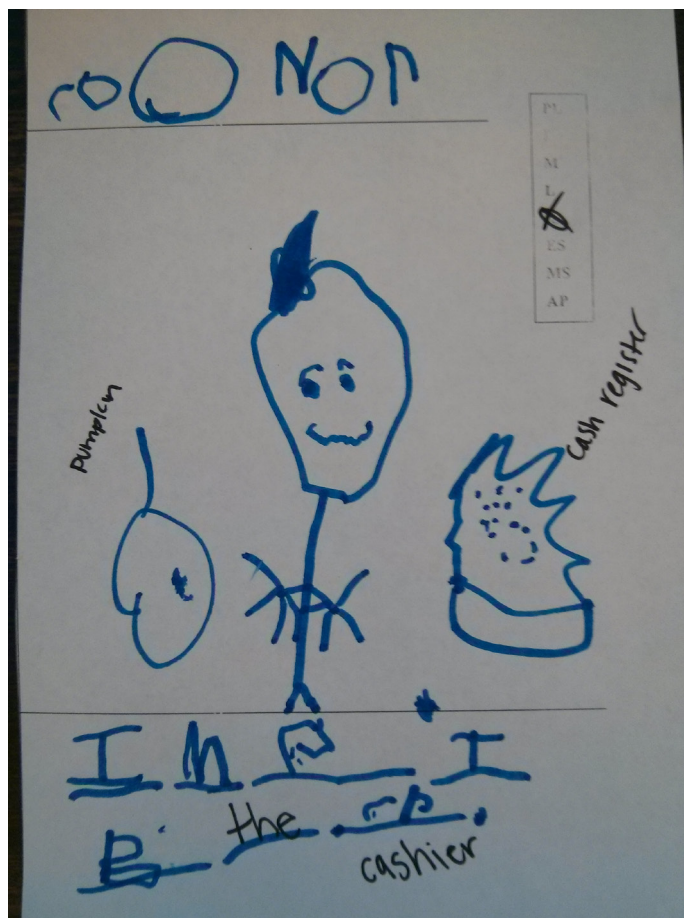


(<http://co.chalkbeat.org/sites/default/files/sites/2/2014/10/play-plan.jpg>)

Play planning. Level 2.

. Child attempted to write his name on work and realizes that there should be a message under the picture, so he/she draws lines for a message.

. Child draws himself but failed to draw what he is doing.



(http://www.powellbilingualelementary.com/?page_id=377)

Play planning. Level 3

- . Child begin to use scaffolded writing making lines for each word.
- . Child remembers the stem “I am going to...”
- . Message: “I am going to be the cashier” (Child begins using the sound map for beginning sounds).



(<http://learnnow.org/topics/attention/early-lessons-shape-the-brain>)

Play planning. Level 4

- . Play plans become more elaborate. Child draws in more detail.
- . Uses the Sound map to find letters and writes some letters that stand for the sounds.
- . Can read the message pointing to the words.
- . Message: "I am going to be a Sleepy Beauty and I am going to marry a prince." (Child is using the Sound and Vowel Map to write her message).

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