

The learning model based in Piaget, Vygotsky and Freire: a proposal to overcome the reading difficulties of 5th grade students on schools on the Brazilian

Maicon Hervertton Lino Ferreira da Silva

Dept. of Education
Unigrendal

Augusto José da Silva Rodrigues

Center for the Sustainable Development of the Semi-Arid, Federal University of Campina Grande,
Campina Grande-PB, Brazil.

Davi Libâneo de Melo

Dept. of Education, UniGrendal/Grupo Alpha,
USA/Brazil.

Givanildo Melo dos Santos

Dept. of Education, UniGrendal/Grupo Alpha,
USA/Brazil.

José Fernando da Silva Alves

Dept. of Education, UniGrendal/Grupo Alpha,
USA/Brazil.

Maria Aparecida Dantas Bezerra

Dept. of Education, UniGrendal/Grupo Alpha,
USA/Brazil.

Marcelo Mendonça Teixeira

Department of Applied Informatics, Rural Federal University of Pernambuco,
Recife-PE, Brazil.

Abstract

It is a worrying factor the results presented in the process of reading the 5th grade students of the Brazilian schools. Many students indicate weaknesses in reading skills. Thus, it becomes important to resort to the theories of learning presented by the authors: Jean Piaget (1896-1980), Lev Vygotsky (1896-1934) and Paulo Freire (1921-1997), in an attempt to understand mechanisms of teacher practice that make possible

the construction of the student's cognitive process and reading abilities. Finally, we propose the creation of a learning model based on the three theories presented.

Keywords: Paulo Freire; Reader skills; Brazilian education.

1. Introduction

Nowadays, the Brazilian schools have suffered enough with the educational policies present in the country. It is not today that Brazilian professionals encounter difficulties with various situations present in the school day by day.

It is indeed worrying, the results presented in the process of reading the 5th grade students of the Brazilian schools. For, a considerable part of the students indicate weaknesses in the reading skills.

Thus, it is important to resort to some theories of learning presented by the main authors: Jean Piaget (1896-1980), Lev Vygotsky (1896-1934) and Paulo Freire (1921-1997, patron of Brazilian education), trying to understand mechanisms of teacher practice that can glimpses the construction of the cognitive process and the students' reading skills.

According to Lino Ferreira da Silva et al. (2017) it is not news that people have been fighting for education, including people with disabilities fight for their rights and for a more just society. Thus, the distorted evolution of education in Brazil today can not be ignored.

In this way, this article is divided between the theoretical basis of theories of education, the methods used to capture reports of experiences of teachers from public schools in the Brazilian Northeast, and finally the contributions of theories to the problems identified.

Likewise, it aims to identify possible causes of the reading difficulties of 5th grade students.

2. Theoretical Reference

2.1 Jean Piaget's contributions to education

For decades, researchers, thinkers, educators and scientists from various fields have tried to understand how human beings learn. With the advent of computer science in the 1960s, computer scientists have sought through artificial intelligence to try to simulate human learning.

However, human knowledge has already been measured through inborn knowledge, until people have been tried to ascertain whether they learned or whether human knowledge was congenital (SANTOMAURO, 2010).

Proof of this were the positions of Plato (427-347 B.C.) and Socrates (469 or 470-399 B.C.) at the beginning of the centuries, when they affirmed that human beings were already born with knowledge, either of past lives or of birth (SANTOMAURO, 2010).

From this perspective, there was motivation by educational scientists to see teaching in another way: the educator should interfere as little as possible in the construction of knowledge.

However, care should be taken to encourage students who already have an ability to develop knowledge, and can be useful for building the knowledge of those individuals with such skills. However, innatism can be considered a bad way to facilitate the success of the knowledge, because there are students who do not

have such congenital abilities and are not easy to learn, have difficulties in the home, or sometimes the educator does not have sufficient skills to manage the construction of knowledge.

In continuity, Aristotle (384-322 B.C.) did not follow Plato perspective completely, for although he believed that people are born with learning abilities, they need lifelong experiences, experiences acquired according to culture, place, and environment in which the being lives (SANTOMAURO, 2010).

Thus, empiricists, as they are called, believe that the human being only transforms information into knowledge when it becomes part of their habits. Equally, philosophers Francis Bacon (1561-1626), Thomas Hobbes (1588-1679), and John Locke (1632-1704) agreed that it is the school's role to form a subject capable of judging what is right and what is morally wrong and act according to criteria of reason, for example (SANTOMAURO, 2010).

Although these perspectives are still used in classrooms, where some institutions still believe that the teacher is the holder of knowledge and it is he who must manage the learning process. By the twentieth century came the constructivism that tries to follow between innatism and empiricism and is consistent with both perspectives, although the individual is born with the potential to develop certain characteristics and abilities, the medium need to provide this development (FERNANDES, April - 2011). Not only can the development of these potentialities be provided, but the individual must act and transform, according to Jean Piaget.

Many scholars have contributed to education through the ideas of Piaget, for example, Paulo Freire, who clearly argues that the human being needs to develop his or her potential as long as the social conditions that are being taken into account are taken into account, we will see more about the contributions of the author in the next sections. Becker (Brazil, UFRGS) says that "a teacher who does not teach is not constructivist" (FERNANDES, April - 2011), but the idea of constructivism is not to take the role of mediator of knowledge. Paulo Freire himself in a video interview "There is no freedom without discipline" shows that there must be rules, it is necessary to have a mediator who can manage the existing knowledge of the world.

From all these perspectives, then, there are ways for the educator to search for ways to probe knowledge in order to understand why what each one knows is important to know more (TAFNER, 2017).

In addition to Piaget's contribution to ideas about constructivism, he showed that it is necessary to confront knowledge, intelligence. Providing new challenges for students, tackling unprecedented situations, are means that children have throughout their lives and with this they infinitely build their cognitive structures "(FERNANDES, March - 2011). Despite this, care must also be taken because children often do not feel comfortable and can adopt other means to face the challenges and situations that have arisen throughout their lives (CARMO and BOER, 2012).

Finally, Piaget's ideas together with the ideas of Vygotsky gave space for the emergence of the Cognitive Theory, going beyond the idea that the individual put in a given situation with stimuli for response, has results in the process of teaching learning (LAKOMY, 2008). Being that, in the Cognitive Theory it is necessary to understand how it happens the learning of the subject in the process of construction of the knowledge..

2.2 Lev Vygotsky's contributions to education

Over the years, with scientific and technological developments, philosophers, anthropologists, sociologists, psychologists and educators began to investigate the human being and how the learning process works. However, it is not easy or simple to understand all evolution of humanity to the present day when it comes to decipher the cognitive of the subject.

In certain circumstances, the subject is able to react and learn in a totally different way from what is agreed upon by society, for example Davis (1994) demonstrates a case of two children who lived with wolves and their behavior was the same as animals.

Now, how can such a situation be explained? Does the human being need social interaction to be of social human facts? Without the social we are people or animals?

It is from this observation that one can note the contributions of Vygotsky to the understanding of the human being and of how the learning process works. A human being deprived of his contact with other human beings is beginning to act in the way of his conviviality with the environment (FERRARI, 2008).

So, when a baby is born he lives in a social relationship with other human beings and feels the need to interact with other human beings, which starts his process of gaining knowledge, with new challenges, erring, and directing his expectations towards the path that your environment provides.

In this way, Vygotsky's contribution has in fact an interactionist sense, such as the ideas of Jean Piaget and Paulo Freire, that the individual is guided by the actions of the environment in which he coexists, whether or not he is politically oriented to live in society. But, Vygotsky has ideas in the future in opposition to Piaget, although there is the possibility of reconciling the two works.

In excerpts from his work Vygotsky says "thought is gradually built into an environment that is historical and, in essence, social" (VYGOTSKY, 1999), corroborating previous narratives and current thinkers.

The problem then, is that all these studies are often used by society, especially by politicians, in a totally bewildered, unstructured and unplanned way, it is clear that the human being only achieves a good social performance in relation to his abilities, if the means in which he co-exists to corroborate, propitiate and entrust such challenges in his daily life.

In the meantime, Monroe (2016) sums up the role of the teacher according to Vygotsky's work as follows: "The teacher is an essential figure of knowledge because it represents an intermediary link between the student and the knowledge available in the environment."

As a consequence, if we recall a little about Jean Piaget, we will see that his constructivism was for the individual to be challenged, to face unprecedented situations, and now, with the contributions of Vygotsky, the teacher assumes an essential role in the learning process to be he the intermediate between the pre-knowledge available in the social world he has acquired throughout his life, and the student as the being to be challenged, put in unprecedented situations and encouraged to seek new knowledge that serve his social, personal and professional life .

Later, it is possible to notice that at the beginning of childhood is the phase that one should better explore knowledge whether they are congenital or not, let knowledge be learned in a fun way, there is always the need in the infantile phase to have a link between the human being and the world, because only then does he learn from the actions of that environment in which he is inserted. Yet according to Vytogsky this

learning is called mediated learning.

Once again, special care is taken with the whole relationship of the learning process, for it is not enough simply to apply a theory of form that is understood correctly and affect millions of people in different ways, as Paulo Freire once said: "There is no freedom without discipline. "

According to Paganotti (2011) Vygotsky's work in more than 200 works on psychology also addressed the school environment and the defense that it is not correct to separate individuals with more developed skills from the individuals who are still in the learning phase. There are thousands of compelling reasons why this separation does not occur, but Vygotsky further notes that there is a way to level child development in two phases: one that the child will learn alone and the other that will learn with the help of someone, whether teacher , relatives or colleagues, he called this term of proximal development.

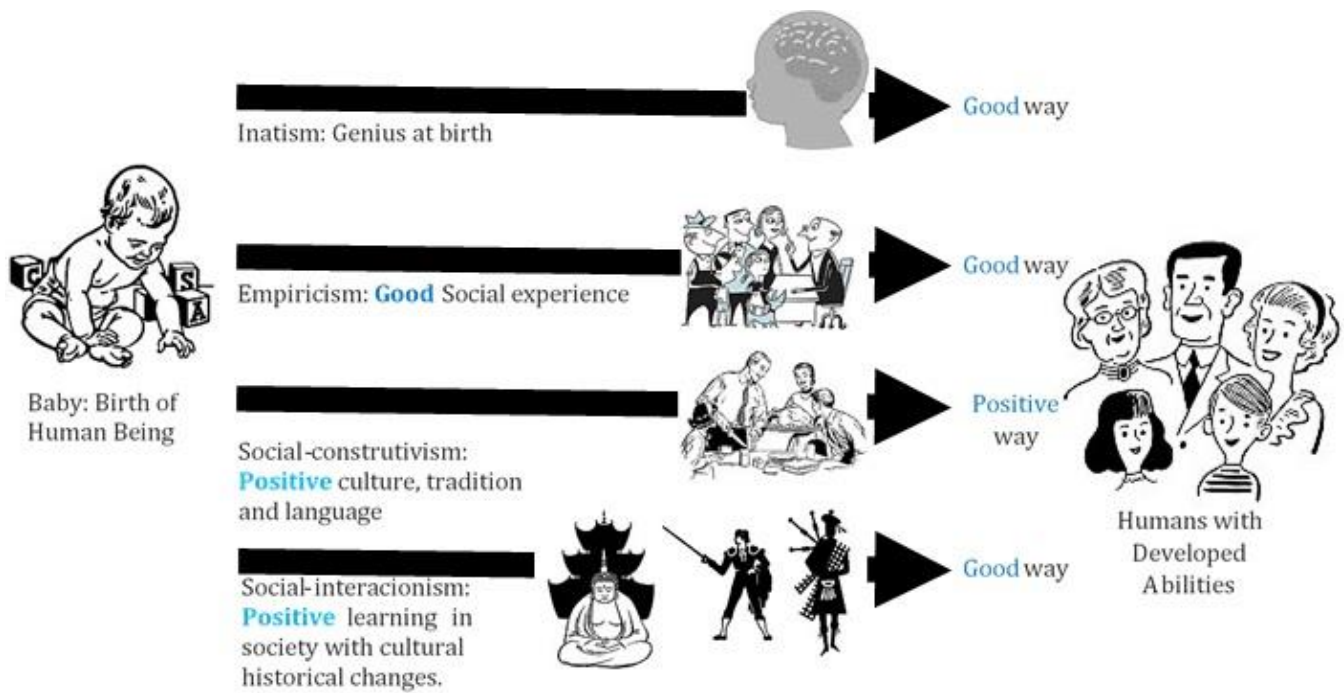
3. The proposal of learning model based on theories of learning

So, summing up Vygotsky's contributions, "in the absence of man, man is not built man." With this statement, it is possible to notice that the social environment, the conviviality, the culture, the ancestral knowledge, the evolution with which the world changes, needs to be taken into account in the formation of the social individual. Thus, it is not enough to be born a genius as already affirmed innatism, the being is constructed through the social coexistence as affirmed the socioconstrutivismo, although in particular the authors of this work believe that the innatism, the socioconstrutivismo and sociointeracionismo can go together, since often already being is born with skills and abilities for development, but the environment does not encourage it, their social life does not provide the possibility of developing such skills.

Of course, it is as if innatism, empiricism, socioconstructivism, and socio-interactionism are the possible theories in which an individual is embedded in an educational context of learning, but sometimes they can take you on straight paths, and now they can take you to opposite paths , depends a lot on the individual, on the being, not always the way to be followed will be a good way. To better exemplify, the author Lino Ferreira da Silva et al. (2017) shows these situations through Figures 1 and 2.

Scenario 1: Innatism person, indoctrinated by empiricism, who had socio-constructivist and socio-interactionist influences in a positive way, ideal natural evolution.

Figure 1. Evolution of the innatism person within a society or in contact with other empiricists who stimulate them to new challenges and who have a positive socio-cultural historical language.



Source: Own authorship.

Available

at:

https://commons.wikimedia.org/wiki/File:Learning_model_based_on_the_studies_of_Jean_Piaget_and_Lev_Vygotsky_Distinct_ways_for_gain_knowledge,_ideal_scenario.png

Scenario 2: Innatism person, or not, with or without empiricist stimuli, who had or not socio-constructivist and socio-interactionist influences in a positive or negative way, relative dynamic evolution.

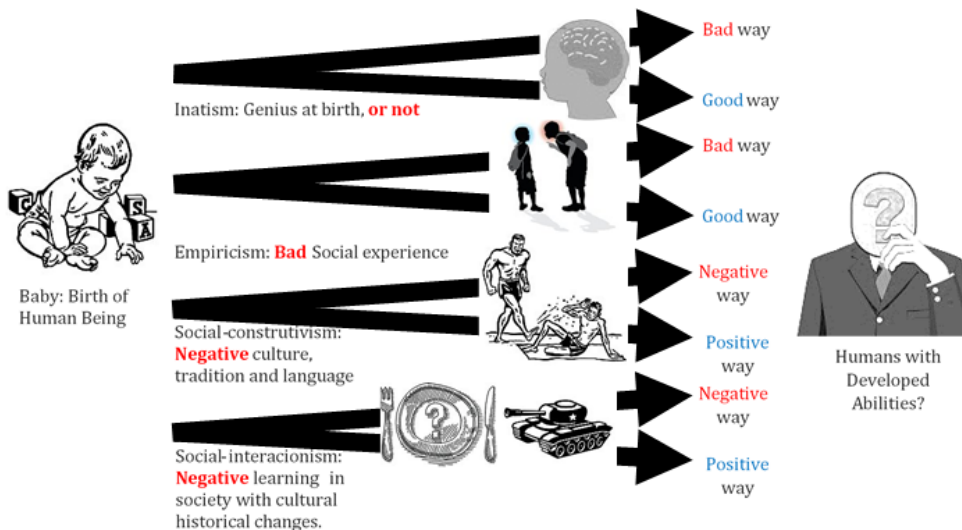


Figure 2. Evolution of the Innatism person, or not, within a society or in contact, or not, with other people that stimulates him or her to new challenges and who have a positive or negative socio-cultural historical language.

Source: Own authorship.

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https://commons.wikimedia.org/wiki/File:Learning_model_based_on_the_studies_of_Jean_Piaget_and_Lev_Vygotsky_Distinct_ways_for_gain_knowledge,_negative_scenario.png

How do we explain that even in situations where social life is poor, historical and cultural changes are negative and the individual still feels the need for knowledge? From developing your skills; learn alone and get out of your "comfort zone" in search of a better life?

4. The proposal of learning model based on theories of learning

According to the development of current education it is possible to identify the weaknesses of quality education as long as there are no politicized men and women to reflect on educational actions that guarantee men the opportunity to think and think.

It is common to find teachers and parents of students distressed by children, young people and adults not being literate. And among the complexities there are questions about who are the responsibilities of a weakened education? Some say of teachers, others say of school management, others argue that it is the country's own education system that does not form autonomous, but repetitive subjects with no perspective of life.

"I can know pedagogy, biology like astronomy, I can take care of the earth as I can navigate. I'm a people. I know I do not know and I know I do. So I can know what I still do not know how I can know better what I already know" (FREIRE, 1996, p.94).

The man arrives at school with his world baggage, already alphabetized in a non-formal way, but the school sometimes ignores what the subject already has and only deposits fragments of information without reflecting or making the individual reflect.

Given this presupposition, it is common to realize that the school has only been about repeating syllables and words isolated from the contextual reality of the student, whether in Early Childhood Education, Elementary Education or in Education of Youth and Adult Education (EJA). The school-learner becomes a trunk of information deposits imposed from top to bottom.

Initially it seems interesting to reflect that adult literacy is always a political act and an act of knowledge, for this very reason, as a creative act. It would be impossible to engage an individual in a work of mechanical memorization of the "a-b-c-d-e", and "f-g-h-i-j-k". Hence, he could not reduce literacy to the pure teaching of words, syllables or letters. Teaching whose literate was "filling" with their words the supposedly "empty" heads of the literate. On the contrary, while the act of knowledge and the creative act, the literacy process has, in literacy, its subject (FREIRE, 1921, p.64)

Faced with this reality it is necessary to rethink what kind of subject is being formed today, since the student needs to explore knowledge in an intellectual way and not just absorb information by particles. It is in this sense that Freire thinks about a literacy that values the reading of the student from an early age to not reach the adult stage and go through vexations that have already suffered in the phase of child, adolescent or young.

According to Freire's perspective, education should be a practice of the learner's freedom, where he can question, hypothesize and condense his ideas into reality by means of discovery in an interesting way and not imposed vertically, because the student must be seen from sedo at school as a thinking subject and not

in a traditional way, just to repeat the commands received.

However, politicians did not always clearly understand the mobilization that they stimulated themselves. In the case of the popular education movement, they could never fully understand the relationship between literacy and awareness (FREIRE, 1967, p.24).

The act of forming reflective readers has not always been understood by the education system itself, since Brazil's education policy is aimed at repression and the castration of the learners' knowledge. Proof of this were reports in mid-September 2017, showing that twenty-four Nobel laureates asked the Brazilian president to cut off funding for science/education (LEWER, Access in 2017). This is one of the reflexes of the failure of students to reach university without being able to read and write without being a reproducer. It is questioned to form men and women capable of transforming a society with the multiple dimensions of knowledge.

Thus, the role of democratic authority is not transformed into human existence in a traditional school calendar, mark the lessons of life for freedoms, but even when it has a programmatic content to propose, make clear, with its testimony, that the fundamental in learning of content is the construction of responsibility for the freedom that is assumed (FREIRE, 1996, p.94).

5. Methodology

For the methodological mapping of this research, four schools of the Brazilian were selected. Thus, the managers were asked to gather reports of experiences of teachers in the 5th grade of elementary school. Next, school managers were asked to consolidate the reports of experiences into a single report per school, adding their vision as manager of the unit.

In continuity, we identified the possible causes of the lack of literacy at the end of the second cycle of elementary education in relation to the student's reading skills.

We also analyzed the reports of experiences in the perspectives of the theories presented by Piaget, Vygotsky and Freire.

Finally, with the reports of experiences once consolidated and analyzed, possible ways to overcome the difficulties presented and a learning model were proposed.

6. Results

With the objective of identifying the possible causes of the reading difficulties of the students of the 5th grade of elementary school, they were collected reports of experiences of teachers of the 5th grade of elementary school in schools in Brazil. It is worth emphasizing that the reports of experience were consolidated by school, that is, the manager of each school gathered the reports of all teachers and synthesized based on their experience as well.

In order to facilitate the identification of the reports, they were enumerated as follows: the letters RL concatenate with the number of the report in sequential order..

6.1 Experience Report ER01

We teachers of the public network for about 18 years, having as experience in the classroom in the municipality of Escada, located in the Zona Sul Mata in the state of Pernambuco, we have encountered great challenges in the teaching classes of the initial years of Elementary School, where most of the students reach the 5th grade without being literate. And one of the biggest challenges is to motivate the student to continue in school once he feels he is failing in the reality of our country.

What are questioned by teachers, managers, coordinators and the education secretariat who is to blame for these catastrophic results? We believe that all these are reflections of the education system of our country, because its fragility of public policies in leaving children, young people and adults margin of crime, because there are no policies aimed at the formation of critical, reflexive subjects.

Some of the problems are the lack of appreciation of the teacher who need spends months, without receiving the salary, that are already insufficient to support his family, lack of investments in continuing education, not to mention the lack of teaching materials.

6.2 Experience Report ER02

Faced with so many difficulties encountered by teachers in relation to the teaching-learning process, with children in the 5th grade of elementary school, especially in what concerns the acquisition of reading, we find that even with all federal government investment with the "Pacto pela educação" program at age right, we still have children who arrive in the 5th grade without knowing how to read and write.

As a school located on the outskirts of the city near the maximum security prison and the city dump, we have a profile of students who live in a situation of vulnerability, where families survive from the separation of recycled materials and also from the "Bolsa Família" program, most parents find themselves in jail.

However, with all the difficulties encountered, the teachers are able to work with these students looking for ways in which students can acquire reading.

According to Paulo Freire, knowledge will be built through the medium in which the individual is inserted. Therefore educators need to work with the real, with the concrete, starting from generating words.

While for the psychologist Lev Vygotsky the teacher will be the mediator of learning, that is, it will be the intermediary between the student and the knowledge available in the environment.

6.3 Experience Report ER03

Regarding the observations made in the room of the fifth year of school #dited by the authors to maintain the school's secrecy # we can see that 75% of fifth year students present difficulties in reading comprehension. Where they arrive, without this practice, not following the curricular proposals of the cycle that are inserted.

Thus, we investigated where this problem arose, it was observed that the students live in a vulnerable community, where their income comes from what they collect in the dump that is near their home, 50% of the parents are imprisoned in the maximum security prison "Ênio Person Guerra" that is located on the right side of the school, 15% are separated, their family structure presents a psychological discomfort.

This affects the process of teaching learning, they have no habit of reading at home and most of the time

are not encouraged by parents because the time that is out of school is in the dump to help in income where not even a minimum wage arrives.

The teachers of the 5th grade develops in their pedagogical practice a diversified methodology to meet the difficulties presented.

Methodology with dynamic classes, crusades, textual genres, letter, ticket, comic strip, among others.

They work by wrapping labels that can be found in your social environment.

Before they were called the school of the dump which had no solution to improve the quality of the environment today parents are partners of the school participate in recycling workshops, because the school does not have punch, parents, along with employees, made a fence of bottles pete

The school to achieve offer results through the new education reinforcement project to work the reading difficulty only with those who presents difficulty in reading.

7. Conclusions

Here, we will present the conclusions and proposals based on the theories of learning to try to solve difficulties in reading skills.

7.1 Contributions of the theories of learning to the process of acquisition of the reading ability

As it was possible to note in the reports of experiences, the problems with the acquisition of the reading ability by the students are diverse. However, Freire and Vygotsky can contribute to the adaptation of knowledge and adaptation to the environment in which the individual is inserted, his knowledge acquired through political, historical and cultural language.

Thus, in reports ER02 and ER03, it is possible to note that the school is located near a maximum security detention zone, and in addition, near a dump, the reality of these students, the knowledge exposed, the lived experiences are not the same ones of a student who was born in the comfort of a rich home, in neighborhoods of social classes with purchasing power.

However, it is not that the individual who studies between a prison and a dump has less cognitive ability to learn, it is not that the rich student has more facility and access to knowledge, it is the way students' of how Brazilian educational policies are developed, formulated and "structured". Freire affirms that one can not ignore the knowledge already acquired by being, just as Vygotsky, that being can be born unstressed and even in precarious situations as it is exposed by the report, it can in Piaget's perceptions be challenged, with challenging teachers that stimulate the knowledge , as do the teachers in the ER03 report, who contribute to the process of teaching learning in a positive way.

For Jófili (2002) Piaget's conviction is that children are like scientists, while Piaget emphasizes interaction with objects, Vygotsky emphasizes social interaction.

Therefore, another proposal would be the exposition of new challenges for students, such as the use of technological resources in the works of Lino Ferreira da Silva *et al.* (2017), with the application of learning objects developed with Information and Communication Technologies (ICT) . Thus, learning objects can be quite useful in the learning processes of reading skills based on the principles of Piaget, while the student can be taken to places such as museums and libraries for visits that enable the student to interact more

frequently, in accordance with Vygotsky and Freire.

7.2 Final considerations

Therefore, in a political era of crisis and total disbelief in the political-social being, in Brazil for example, many succeed in achieving their goals, developing their skills, and becoming great scientists, great taxpayers of society, doctors, doctors, lawyers, scientists, all from slums and social situations where they do not encourage or guide them to better ways.

Finally, it is not only the social environment or the environment that will define how the human being will develop his skills or knowledge, the human being is unpredictable and related to many circumstances unknown to man until today.

What really stands out here is that we have public policies on the part of Brazilian governments that defend a learning ideology turned to the reality of our country, because while we are copying the models of education of others that does not fit the reality of the man and woman that exist in this country we will have only a mere education.

In order to train readers, it is necessary to invest in the good development of training for teachers, who have taught in the first classes of early childhood education so that the basis of quality education can be expanded by other forms of education. No education is done mechanically, but in a process of multiplicity both cultural, geographical, racial and other aspects.

Because there is no better and no worse but different learning, this is why it is believed that education can contribute to a more just construction of citizenship, with emphasis on the knowledges that each man or woman can build, since the constructions of knowledge can be different, but it is something that belongs to each individual.

If there are really educational practices according to the knowledge of the students, the realities of the levels of illiterates would change, therefore, each subject would like to expose the knowledge already acquired and would seek the new, which is the very nature of man to be curious, questioning and challenging of their realities. It is what is lacking so that one has a country of education of first world and not limit itself in the sameness that has lived until the present days.

Finally, as future work, we intend to expand the collection of reports of experiences in a larger number of public schools to try to verify patterns of behavior in difficulties that students have been experiencing in Brazil.

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