Implicit learning theories of Biological Sciences students from PIBID

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ABSTRACT

In the last two decades, several discussions guided the initial and continued training of teachers, which resulted in several different initiatives. One of those initiatives is the Institutional Program for Scholarships of Initiation in Teaching (PIBID), which seeks to improve and enhance the training of teachers for basic education and make teachers part of the daily life of the schools from the public system. In order to investigate the implicit learning theories of 17 Initiation in Teaching (IT) scholars, all linked to PIBID, we used a qualitative-quantitative research method, using structured interview with pre-established script and analysis of 30 statements distributed fairly, from a range of values in a Likert scale. The emerging educational theories were Active, Traditional, Constructivist, Criticism, Technical and Contingency factor – adapted from administrative science. The results showed the group's quirks related to the theories investigated and to the professional profile, suggesting a more reflective and critical view in the formation of professionals participating in the program.

Keywords: Learning theories. Implicit theories. PIBID. Training of teachers.

Teorias implícitas de aprendizagem em estudantes de Ciências Biológicas do PIBID

RESUMO

Nas últimas duas décadas, várias discussões nortearam a formação inicial e continuada de professores. Nesse intuito, surge o Programa Institucional de Iniciação à Docência (PIBID) que busca aperfeiçoar e valorizar a formação de professores para a educação básica e inserir os licenciandos no cotidiano de escolas da rede pública de ensino. Na intenção de investigar o perfil pessoal e as Teorias Implícitas de Ensino e Aprendizagem de 17 bolsistas de Iniciação à Docência (ID), todos vinculados ao PIBID, utilizou-se o método de pesquisa quali-quantitativo, utilizando a entrevista estruturada com roteiro pré-estabelecido e análise de 30 afirmativas distribuídas de forma equitativa, a partir de uma escala de valores na escala Likert. As teorias educacionais emergentes foram a Ativa, Tradicional, Construtivista, Crítica, Técnica e o Fator de Contingência. Os resultados demonstraram algumas peculiaridades do grupo referentes

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às teorias investigadas e ao perfil pessoal e profissional sugerindo um olhar mais reflexivo e crítico na escolha dos profissionais participantes do programa.
Palavras-chave: Teorias de aprendizagem. Teorias implícitas. PIBID. Formação de professores.

INTRODUCTION

Training professionals in education able to creating learning conditions should be the basic principle of the initial and ongoing training programs for teachers from preschool to university. There is, however, a dilemma that often expresses as the need to invariably associate knowledge content and didactic-pedagogical procedures in the teacher training process. In addition to these components, it is known that being a teacher is to live and face contradictions, both personal as well as in social relations.

Within this complexity, education, at the moment, is suffering numerous changes arising from world socio-economic reorganization. The educational paradigms, with these changes, promote the emergence of a new school environment. Within this new panorama, an important question without a shadow of a doubt, is of educational practice, the teacher's posture and their positioning against different learning theories. These are some of the issues that determine the effectiveness of the knowledge construction process.

In this perspective, it is living with different realities that future teachers will confront their educational beliefs, developed during their school life and perfected throughout their academic training.

In this light, the Institutional Program for Scholarships of Initiation in Teaching (PIBID) is intended to enhance the training of teachers working and those that will act on basic education in public schools in the future.

For Machado and Ribas (2007, p.3), the commitment of a teacher with current issues in education, in the broadest sense, goes beyond of being just simple transmitters of knowledge and their professional experience; above all, it is to constantly be in the process of reflection.

Nuñez (2009) states that our beliefs about teaching and learning are basically implicit, because we work from the intuitive sense of what is happening, without actively reflect on our intentions or what our actions show.

Nowadays, besides performing, one should rethink and redo their profession, because the only way to add new knowledge is reviewing and renewing old ones.

The renewal of knowledge must be constant, in light of a world of knowledge that is in an overwhelming pace of change. Professional quality is more in search of permanent renewal, emphasizing the relationship between educator and learner.

The theories involving learning show strong influence on the teaching practice, and depending on the teacher's belief, it can impact positively or negatively on their role on the student's formation.

The Act of teaching and learning involving the practice in daily life often occurs without real concern with the nature of these processes and generally without proper theoretical contribution. However, what stands out is the attitude of the teacher teaching and of the student learning. Teachers, though, rely on some references that explain this attitude since "as teachers we have some explanatory references and also, implicitly or explicitly, we guide our practice for such references" (VASCONCELOS et al., 2003, p.11). Among these references, we find learning theories.

The learning theory according to Moreira (2011, p.12 and 20) is a human construction to systematically interpret what we call knowledge learning area, indicating the point of view of a particular author/researcher, at a particular time. It characterizes the different interpretations of these individuals about the learning topic, indicating their dependent, independent and intervenient variables, in other words, they seek to explain what learning is, why it works and how it works.

In this sense, Rodrigo (1993) emphasizes that Implicit Theories are constructed basically within a social context and not transmitted. Nuñez et al. (2009, p.43) reinforces this perception, stating that "Implicit Theories are related to the teacher's professional knowledge, teacher's didactic and instrumental training, the social and cultural knowledge and the context in which the training and the professional practice are developed."

Teachers form their implied theories throughout their training and professional experience, starting at primary school, by living and the links created with their teachers, during graduation, through practices and internships; and finally with their work as a teacher, experiencing many different social and cultural realities found in schools.

Researchers like Bejarano and Carvalho (2003, p.1) indicate that "educational beliefs originate from a more intense way during the period in which the future teachers find themselves as students in the basic education". For the authors, at this stage of training, the role of the school, in addition to creating a model of teacher, introduce a peculiar way to understand the processes of teaching and learning, a personal vision of science, as well as other aspects of educational beliefs (BEJARANO; CARVALHO, 2003).

Rodrigo (1993) uses interpretation of cognitive anthropology to support his thesis of knowledge transmission, where implicit theories are not transmitted, but rather built individually within a social context.

The research on the thought of a teacher arise in the educational scenario assuming the posture of conceiving the teacher as a rational individual, issuing judgments, decisions, beliefs and generating routines (GARCIA, 1987 apud NUÑEZ, 2009).

The objective of this study was to investigate the learning theories of students from PIBID, initiating in teaching (ID) of a biological sciences degree.

IMPLICIT LEARNING THEORIES

Marrero (1993, p.87), in his studies, approaches the main Implicit Theories, which are incorporated into the common sense, being part of learning theories of the 20th century and extending it into the 21st century.

Initially the "**Traditional Theory"** is characterized by advocating education as a process of discipline and that learning is done by exercise, repetition and copying of pre-established models. The traditional approach comes through typically expository methodology from the knowledge transmission, prioritizing the content.

The "**Technical Theory"** is characterized by the excessive appreciation of technological resources or the expertise of the technicians, inspired by behaviorist learning theories and the systemic approach of education, seeks to adapt education to the needs of the industrial and technological society. The teaching and evaluation process is focused on goals.

On "**Constructivist Theory"**, we realize that knowledge is built on the interaction of the subject with the environment and that learning is a process built by the student, but mediated by the teacher. It is a consolidated theory in Piaget's work in the middle of the 20th century.

To Gadotti (1999, p.148), the "**Active Theory"** records the influence of John Dewey, philosopher, psychologist and pedagogue, a liberal North-American, about the contemporary pedagogy, who being advocate of the *Active School*, proposed the learning through student's personal activity, where it would prioritize learning by discovery, under the teacher's guidance.

The "**Critical Theory"** aims to train critical consciousness in students, having as basis the political-moral character and the social and historical context present. For MOREIRA (2011), it is through meaningful learning critic that students may be part of their culture and, at the same time, not overwhelmed by it, by its rites, myths and ideologies.

The "**Contingency Factor**" was assigned to a group of theories for representing a strong feature found in the students' probationary process. Often it is observed that the teachers in training are strongly tied to achievement of goals and the activities proposed in their planning. And, in the meantime, according to Bijou and Baer (1980), we should worry about the changes that occur in interactions, because the behavior changes, new skills are developed and refined. This is because new interactions are established between the individual and their environment, and in this context, it is for the teacher to be prepared to conduct and promote these interactions.

For best viewing, Table 1 shows the main features involving different theories treated in this work.

TABLE 1 – Main features of Learning Theories treated in the study.

	CHARACTERISTIC
TRADITIONAL THEORY	- education as a discipline process; - learning is done by exercise, repetition and copying of pre-established models; - offers a typically expository methodology; - based on knowledge transmission; - prioritizes the content.
TECHNICAL THEORY	- excessive appreciation of technological resources; - seeks to suit education to requirements of the industrial and technological society; - the teaching and evaluation process is focused on goals.
CONSTRUCTIVIST THEORY	- seeks to build knowledge in the subject's interaction with the environment; - learning is a process built by the student; - learning mediated by the teacher.
ACTIVE THEORY	- proposes learning through student's personal activity; - prioritizes learning by discovery; - advisor teacher.
CRITICAL THEORY	- seeks to form critical consciousness in students; - has as basis the political-moral character and the social and historical context present.
CONTINGENCY FACTOR	- factor followed by several students subjected to the process of training; - can characterize teacher's insecurity in conducting their class; - can demonstrate inadequate choice of teaching methodology; - can characterize lack of planning; - can characterize teacher's ignorance about their group of students.

Source: This research.

It is known that the teaching and learning process, par excellence, should not use only information transmission, but seek to empower students to develop observation, critical analysis, reflection and evaluation of information, transforming it into knowledge.

It is believed that the teacher has the clarity in the selection and preparation of the didactic material, ensuring the students, most of the time, a most significant learning that will remain during their life, and not just content storage for class or evaluation.

A BRIEF LOOK AT THE INSTITUTIONAL PROGRAM FOR SCHOLARSHIPS FOR INITIATION IN TEACHING (PIBID)

The Institutional Program for Scholarships for Initiation in Teaching (PIBID) is a program of the Ministry of Education, managed by CAPES (Coordination for the Improvement of Higher Education Personnel), whose purpose is the development and enhancement of teacher education to basic education and support for graduate students, public, philanthropic, faith-based or community institutions, not-for-profit of higher education. Its first launch occurred by public call MEC/CAPES/FNDE on 01/2007, published in the Official Gazette on December 12, 2007; new calls still exist so far.

This program offers scholarships to students in present teaching courses, who can devote to internship in public schools and, after graduation, commit themselves to the teach in the public system. The goal is to anticipate the link between future teachers and classrooms of the public system. With this initiative, PIBID makes a link among higher education (through the teaching degrees), the school and the State and municipal systems.

The intent of the program is to unite the State and municipal education departments and community and public universities to improve education in public schools where the basic education development index (Ideb) is below the national average of 4.4. Among the proposals of PIBID is the encouraging of the teaching career in the areas of basic education with greater lack of teachers with specific training: science and math from the 5th to the 8th year of elementary school, and physics, chemistry, biology and mathematics for high school.

METHODOLOGY

This study[1] is part of a research, was based on the inductive method, which according to Gil (2012, p.10), goes from the particular and establishes generalizations as a product after the work of private data collection.

The sample was intentional, chosen to represent groups that act directly in basic education schools and are connected to PIBID. We used a non-participant observation, because there was no interaction with the environment by the researcher, but only the finding of facts.

The subjects of the research were 17 students in the Initiation in Teaching (ID), all belonging to the PIBID-biological sciences program.

The approach was quali-quantitative, using the case study form, which is justified because it is the analysis of a specific group of scholars from a single subproject of an institution of higher education.

[1] Part of the thesis from BOHRER, Temis Regina Jacques.

For Minayo (1993), "[...] we seek to conclude that both approaches are necessary, however, in many circumstances, insufficient to cover all the observed reality. Therefore, they can and should be used, in such circumstances, as complementary, whenever the investigation is accordingly" (MINAYO, 1993 p.240)

In the quest to understand and interpret certain actions perceived in the course of this study, we used in its design the Case Study which, according to Gil (2012, p.57-58), is characterized by the complex study of "one or few objects, to allow its extensive and detailed knowledge, an almost impossible task by other types of designs considered."

As collection and information retrieving instruments, we used self-applied questionnaires, with open and closed questions.

For the analysis of the questionnaires, we opted for the **Content Analysis**, listing the steps of Bardin's technique (2012), which organizes it in three stages: the first is the pre-analysis; the second is the exploration of the material; and the third and final one is the treatment of the results, inference and interpretation.

In determining the profile against the Implicit Learning Theories of Students in the Initiation in Teaching (ID), all scholars of the Institutional Program for Scholarships for Initiation in Teaching in the year 2013, we used the Likert scale.

For the verification of the factors that explain the intensity of each one of the competitive forces, represented by the statement submitted to the Likert scale, we used the approach of Middle Ranking (MR). For obtaining the Average Ranking (AR), we used the following formula:

TABLE 2 – Formula for the Average Ranking (AR).

Weighted Mean (WM) = $\sum$ (fi. Vi)	Average Ranking (AR) = WM/(NS)
fi = frequency observed from the answer of each item	
Vi = value of each answer	NS = number of subjects

Source: Research.

According to Oliveira (2005, apud BONICI; ARAÚJO, 2011), the Average Ranking is obtained by the Likert type of method, through the score assigned to statement.

RESULTS AND DISCUSSIONS

After data collection, the analysis process was done based on the content analysis methodology, which is based on the ideas of Bardin (2012).

The characterization of the scholars of the Initiation in Teaching (ID) regarded their Implicit Learning Theories trends.

As for the profile of the group of scholars in the Initiation in Teaching (ID), they were characterized by the predominance of female, with the percentage of 95%, being 53% of the respondents enrolled between the 8th and the 10th semester of the degree course in biological sciences, 59% had teaching formation in high school, and 65% were teaching at the time of research.

Although they are studying in a teaching degree and integrating a program of Initiation in Teaching – PIBID, only 59% of the scholars show as the main goal the teaching profession. This value can be associated with the students that attended the teaching course in high school.

This decline in the interest in teaching is noticeable in all teaching undergraduate courses, established by the low number of enrolled, applicants and the high rate of evasion of teaching degree students, both in public and private institutions in the country.

To justify this percentage in search for teaching, mainly because it is a teaching degree, Gatti (2009) indicates that multifactorial conditions detrimental to education, one being the initial and continued training of teachers, the career plan, teacher's wage and the working conditions in schools.

By analyzing the profile of the scholars (ID), we observed that 65% of them are also undergraduate research fellows at the Higher Education Institution, 65% percent already had some function related to teaching, and of these, 64% are teachers, 27% worked in educational projects and 9% are interns in a Municipal Preschool.

We notice, in these data, that many students use the accumulation of grants to stay in the degree, because only 40% have their families established in the municipality of Higher Education Institution.

When asked about teaching, we observe that 100% of the scholars (ID) pictured themselves in the role, justifying it through the following statement: *"having had a teaching internship"* and *"to be in PIBID"*, both with 23,5% of the justifications; 17,6% because *"are already teaching"*; 11,8% because *"are getting prepared to teach"* and with 5,9% *"seeking in education an improvement in society"*, *"transmit knowledge to the student", "for having been in a classroom" and "only teaching the biology subject"*.

The scholars (ID), when asked about what influenced their choice of course, answered the following: 23.6% say *"I like to teach"*; 17.6% mentioned *"I like education"; "the influence of teachers at school"* and *"interest in the course"* corresponded to 11.8% each; with 5.9% *"to contribute for the improvement of education and society", "influenced by PIBID"*, but *"I would have taken the bachelor's", "I love studying", "job market"*, and 2.9% *"influenced by science fairs", "influenced by practical lessons at school", "I enjoy working with nature"* and finally the *"ease of financing for studying."*

Pimenta and Lima (2012) refer to the practice as imitation of models.

> Engaging in any profession is practical in the sense that it comes to learn how to do "something" or "action". The teaching profession is also practical. And the way to learn the profession, with the perspective of imitation, will be observation, imitation, reproduction and, sometimes, reworking existing models in practice enshrined as good. Often our students learn with us observing, imitating, but also developing their own way of being. In this process they choose, separate what they consider appropriate, add new modes, adapting to the contexts in which they find themselves. To do this, they make use of their experience and knowledge they have acquired. (PIMENTA; LIMA, 2012, p.35)

When asked about what they expected to find in schools, the scholars with 26.3% of the statement mentioned find *"different realities"*, 17.4% *"unmotivated teachers"*, also, with 13% *"lack of interest by the students"* and *"lack of resources"*, 8.7% expected to encounter *"family problems"* and there are also other four, *"difficult environment"*, *"lack and inverted values", "discredited school", "overloaded teachers"* and that *"I would not want to create expectation"***,** each with 4.3% of the statement.

For Gatti (2013)

> The concrete conditions of public schools – which serve the majority of the Brazilian population – with its character of precarious, poorly constructed buildings and bad care, lack of pedagogical material, absence of strong support to the school teams (pedagogical or forms of management), fads that are experienced without examination of the conditions for its implementation are factors contributing to the value of this education and, as a result, of teachers, to be associated to the representation of precariousness. With this active set of conditions, the images are of pauperization of this schooling and those with it involved. (GATTI, 2013, p.155)

With respect to the interest of scholars (ID) in taking in the future a graduate degree or in the Education area, 94% were positive, however, 35.3% do not indicate teaching as the main goal of working.

Among those who claimed not having the goal of working as teachers, they justified with the following statements: *"I would like to take the graduate degree before", "I do not see space for teaching without encouragement" or "I would like to act in other areas of biology."*

When asked about the factors that contributed to their teacher education and how, the answers were: *"supervised internships in teaching and practice"* with 19.4% of indications, *"PIBID"* and *"contact with committed teachers"*, both with 16.7%, *"practice in the classroom"* with 13.8%, *"theoretical discussions about teacher education"* and

"knowledge of the school reality" both with 8.3%, *"activity planning"* and *"family support"* both with 5.6% and also *"curiosity"* and *"teaching"* each with 2.8% of the mention.

Quoting again Pimenta and Lima (2012),

> In the recent theoretical movement about the design of internship, it is possible to place two perspectives that mark the quest to overcome the dichotomy between theoretical and practical activity. The production of the previous decade is indicative of that possibility, when the stage was defined as theoretical activity that allows to know and to move closer to the reality. More recently, when the contributions were put on the horizon of epistemology of practice and to differentiate the concept of *action* (which talks about the subject) of the concept of *practice* (which talks about institutions), the internship as research begins to gain strength. (PIMENTA; LIMA, 2012, p.44)

When asked about the contribution of PIBID in its teacher education, the scholars emphasize that the program provides *"to know the school context"* with 34.3% of the references, *"to be able to teach in a classroom"* and *"prepare for teaching"*, appear, both, with 17.1%, *"experience in practice the theories learned"*, with 8.6%, *"with different realities"*, with 5.7% and complementing the percentage, several other statements were made by the scholars, *"to be able to learn from mistakes before acting professionally, enabling group work among scholars in the preparation of activities, performance in the classroom, interaction with the school community, integration between scholars and teachers of basic education, preparation for the supervised teaching internships, and promotion of planning moments"*.

Another question was about the function of the teacher in the teaching and learning process, we found that 39.5% of the statements of the scholars emphasized words like *"pass, lead, conduct, coordinate, transmit knowledge, to work with content with the students, to explain and to do activities and to make students learn"* showing traits of Traditional Theory. With 21.1% the following words appeared *"mediator, motivator and to construct learning in interaction with the student",* characteristic of the Constructivist Theory. In 10.5% of the statements: *"advisor, guide, instigator, promoter of the construction of knowledge from situations problems"*, classic of the Active Theory. Critical Theory represented by mentions such as *"to enable discussion and reflection, to form critical students"*, and the Technical Theory related to terms such as: *"get new methodologies and promote practical lessons"* appear, respectively, with 5.3% of the statements. To consider the teacher's role as *"a bridge between teaching and learning"* is cited by 5.3% of the scholars and there are other five references, such as *"to be a friend of the students, to work the qualities of the students, to demonstrate posture, respect for student and to know the reality of the student"*, all with 2.6% of citations.

When they refer to the need for improvements to the teacher's profession, the scholar mention: 36% *"wage valorization"* and 30.6% *"social valorization"* of the teacher, 66.6%

of the statements, with 11.1% indicate *"to improve the teacher's posture"*, with 8.3% for *"continuing education",* with 5.6% *"better working conditions"*, and with 2.8%: *"more time for planning, teachers with less workload and the initial formation."*

The scholars believe that for learning to happen, some factors are required, characterized in this study, such as:

- Constructivist, with 33.3% referring to the *"encouragement, motivation and mediation of the teacher in the learning process, the construction of knowledge between student and teacher, in which knowledge will be built during the classes and that the content should be felt by the student."*

- *Active,* with 25.9% referring to the dependency of learning the student's figure, saying that they *"depend on the student"*;

-*Traditional,* with 22.2% referring to *"how the teacher conveys knowledge"* and reference to *"learning through reading, visualizing and writing"*;

-*Technical*, with 11.1% *"associating theory with practice"*;

And without characterization: *"without involving the use of mobile phones"* and the *"family support"*, both with 3.7%.

When asked about the importance of teaching contents (contents of the discipline) to the student's training, the scholars have established that *"only through the contents there will be student learning"*, that this *"must be well fixed* and that will serve as *"basis or guide for learning"*, in 43.5% of the references**,** reinforcing a traditional profile. *"To prepare the student for life"* with 26.1% of the mentions, with 17.4% saying that learning content will only be valid if it serves for *"professional training"* and *"to prepare for the job market"*, trace of the technological profile. Also 8.7% referred to the importance of *"fitting the content to the student's need"* and 4.3% *"did not attribute the importance of content and claim that the student should be the learning center."*

Regarding the characterization of Implicit Learning Theories of Initiation in Teaching (ID), we state that five learning theories were examined: traditional, active, constructivist, criticism and technological, being the sixth one named in this study as Contingency Theory, adapted from the theory applied in the area of Administration entitled Theory of Organizational Contingency.

Chiavenato (2003) emphasizes that there is not only a true satisfactory way of organization and management applicable to all companies, but everything depends on the conditions of the environment in which they operate, featuring then contingency factors.

For the evaluation of Learning Theories, these students used a scale of values (Likert scale) with a variation from 1 to 5. This scale contained 30 statements which contemplated six theories. The scores should reflect the degree of agreement with the ideas of the statements about teaching, in a rising scale, where 1 indicates Completely Disagree, 2 Disagree, 3 Indifferent, 4 Agree and 5 Totally Agree.

Each theory was represented by 5 (five) statements, being "A1, A3, A4, A28 and A30" characterized as Technical. Active: "A2, A14, A16, A21 and A22. Constructivist: "A4, A8, A17, A18 and A29. Traditional: "A5, A6, A10, A12 and A25". Contingency: "A7, A11, A20, A23 and A27" and Critical: "A9, A13, A15, A19 and A26". The statements related to the Learning Theories were adapted from Marrero (1993) and others adapted by the authors of this study. The statements are shown in Table 3 as follows:

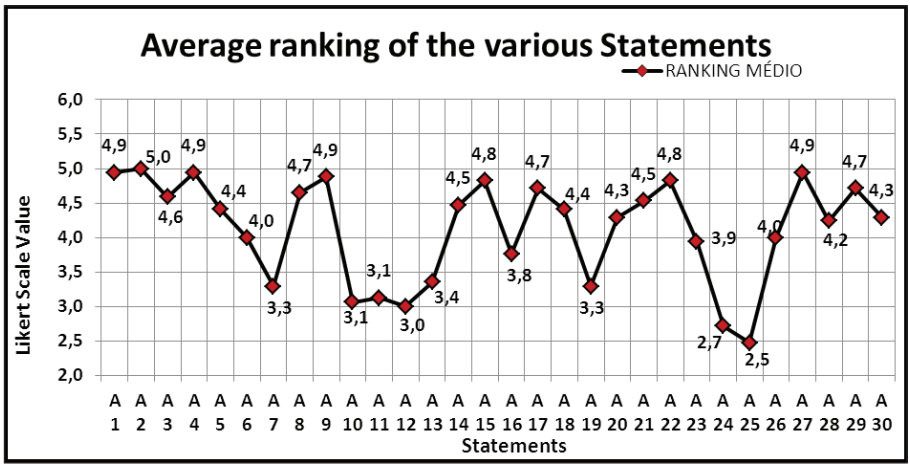
TABLE 3 – Statements Related to Learning Theories.

1. The teacher should emphasize different technologies, promoting the insertion of student to the job market.
2. The teacher should conduct discussions in the classroom to promote a learning more suited to the student.
3. The teacher must prioritize practical lessons, such as the ones in a laboratory, following implementing protocols.
4. The teacher should make collective decisions between students and teacher, seeking a democratic coexistence.
5. The professor must seek, firstly, the cognitive learning of the student.
6. The teacher should have authority in the classroom; otherwise the student will have their learning impaired.
7. The teacher must vary their posture according to the student's conduct.
8. The teacher should be more concerned with the students' learning than with the end result (pass/fail).
9. The teacher should promote relations in the classroom that promote diversity and equality among their students.
10. The teacher should lead the student learning; otherwise the student will be unable to think on their own.
11. The teacher must adapt at all times to attitudes and proposals for their students.
12. The teacher must consider the main agent in the teaching learning process.
13. The teacher must follow the ideologies and cultures proposed by the current system.
14. The teacher must support their teaching using scientific knowledge.
15. The teacher should integrate their proposals of social factors education, preparing their student for life.
16. The teacher should stimulate learning by trial and error.
17. The teacher should promote the self-achievement of their student in their learning.
18. The teacher should be more of a coordinator-advisor than a controlling agent.
19. The teacher should seek a homogeneous education, disregarding the existence of social differences.
20. The teacher should consult their students about the methodology to choose, however the final decision will be at their role.
21. The teacher should teach using experimentation, so that the student will remember the content more effectively.
22. The teacher should consider the work progress of the students in the course of the school year.
23. The teacher should have a different conduct for every situation that occurs in the classroom.
24. The teacher should consider compliance with the educational program as the only reliable indicator of the quality of education.
25. The teacher should reward the student who gets good grades.
26. The teacher must contribute to the selection, preservation and transmission of norms and explicit values.
27. The teacher should make clear the targets and objectives proposed in their discipline.
28. The teacher should get a method that enables the achievement of more goals in less time.
29. The teacher should always take into account the interests and needs of students in their educational goals.
30. The teacher when planning must write clear goals, and then select the contents, activities and evaluation.

Source: Research, adapted from Nuñez (2009).

According to the data obtained in the application of the Likert scale, with 1 to 5 variables, there is, in the graph below, the average rankings of all statements.

CHART 1 – Average Ranking of all statements related to the different Learning Theories.



Source: Research.

As for the statement in statement 5, with an average ranking (AR) of 4.4, it indicates a high degree of concordance of the scholars as the priority of the student's cognitive learning, following traditional ideas. Prioritizing the cognitive learning can reinforce social differences. Similar rate was noted in paragraph 6, in the statement with AR 4, linking learning with the authority of the teacher in the classroom.

However, we attribute the agreement of the scholars of the need of the authority of the teacher in the classroom, in order to ensure learning, as a conduct induced by a load of information practically about violence in schools and, also, by the insertion of these scholars in different realities.

The lowest average ranking (AR), of 2.5 of agreement, was obtained in statement 25, which emphasized the award of students who get good grades. However, we know that there are awards for accomplished students, for example, "Student grade 10", sponsored this year by the Government of the State of Roraima (RR). The evaluations were under the best grades in "exams" of Portuguese, Mathematics, Sciences, History and Geography, and additional exams of Chemistry, Physics and Biology for high school (RORAIMA, 2013).

As for statement 16, we observed the lowest level of agreement, within the Active Theory, with AR of 3.8. Contrary to this view, Moreira (2010), part of the

principle of learning by mistake, not to be confused with the concept of learning by trial and error, whose meaning is generally pejorative. Reinforcing that:

> [...] humans make mistakes all the time. It is human nature to make mistakes. The man learns by correcting their mistakes. There is nothing wrong with making mistakes. Wrong is to assume that certainty exists, that the truth is absolute, that knowledge is permanent. (MOREIRA, 2011, p.14)

Regarding statement 4, 8, 17, 18 and 29, referring to the Constructivist Theory, we observed that there was greater homogeneity in their average rankings, in addition to a high degree of affinity, exposed by IDs studied, demonstrated by the data in Chart 1. In statement 18, with AR of 4.4, the teacher's role is emphasized as an agent more coordinator –advisor than controller.

Demo (1998) defines the teacher's role as the advisor of the student's reconstructive process, through ongoing evaluation, in terms of support materials to be worked out, the constant motivation, and the systematic organization of the process.

The juxtaposition of the results obtained with the high level of agreement on statement 6 and the lowest at statement 18, related to Traditional and Constructivist Theories, assumes, respectively, a trend in the group, in accepting the controller and authoritarian posture of the teacher, as a profile of a good teacher.

As for the Technical Theory, the group of students showed a high degree of agreement with the statement 1, with 4.9 Average Ranking, indicating the need for the teacher to emphasize different technologies, promoting the student's insertion in the job market. It is believed that this view is reinforced by the polytechnic education, implemented in high school from 2011 onwards in the State of Rio Grande do Sul. This teaching has as basic proposal the articulation of the different areas of knowledge and technology, with the axes: culture, science, technology and the work as educational focus.

Professional education already integrated into the high school is configured as acquisition of principles governing the social life and build, in contemporary times, the productive systems. (RS, 2010, p.4)

Another indicator is the level of agreement with the statement 3, which emphasizes the need for practical lessons linked to implementing protocols.

Homogeneity was not observed in the Average Rankings of the statements related to the Contingency Factor, but fluctuations about the degree of agreement, though with reasonable identification level with their statements.

It is noted that the group did not submit a predominant profile about the affinity for only one of the Learning Theories; however, they demonstrated a significant agreement with the principles of Constructivist Theory, occurring the inverse with the Traditional Theory.

Despite the result, we observe an acceptance of the group for the controller profile of the teacher in the teaching and learning process, typical characteristic of the traditional teaching, the need to maintain order and control of the group, to ensure the students' learning. In addition to these facts, we noticed low percentage for choosing teaching as professional priority of the respondents.

FINAL CONSIDERATIONS

The contact of the Initiation in Teaching (ID) scholars with the students and teachers of the schools participating in the PIBID program made possible for them to know the reality and experience pedagogical practices in the classroom and in school spaces.

As for the affinity for teaching and learning theories, we observed that ID presented significant agreement with the principles of the Constructivist Theory, because it allows reinterpreting many things by placing them within the movement of history and the universe of the ID, because it gathers several current tendencies of educational thought. These tendencies that bring dissatisfaction with an educational system that insists on training students, making them repeat, recite, learn and teach what is ready.

With the responses to the Traditional Theory, the participating ID showed lower affinity, because it allows little work in the classroom with varied pedagogical instruments, which may lead the student to reflect on social, environmental and citizenship issues that can be a challenge for the novice teacher.

The answers involving the Active Theory demonstrate the belief in student's learning, which is minimized by the high number of students in the classroom and less time for dedication to the planning of pedagogical activities required.

In the Technical Theory, the students related theory and practice, but showed dissatisfaction with an educational system that insists on training students, making them repeat, recite, learn and teach what is already ready.

The partnership among PIBID, Higher Education Institutions and public schools of basic education enabled the latter to become protagonists in the formative processes of teacher, as well as mobilized their teachers as co-trainers of future teachers. It was promoted, yet, a great exchange and construction of knowledge among all those involved in the study.

Understanding beliefs and the implicit theories present in education is to understand evolution and the successive adaptations that may occur throughout the history of life and teaching career.

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