

# LA RELACIÓN PROFESOR-ALUMNO Y LA INCOMPATIBILIDAD DE LOS ESTILOS DE APRENDIZAJE: ANÁLISIS EN UNA DISCIPLINA “PROBLEMA”

## STUDENT TEACHER RATIO-INCOMPATIBILITY AND LEARNING STYLES: DISCIPLINE ANALYSIS "PROBLEM"

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**Resumo:** Identificar os tipos de personalidade e os estilos de aprendizagem dos estudantes é fundamental para que o processo de ensino e aprendizagem seja eficiente. Reconhecer a discrepância entre as preferências individuais de aprendizagem dos estudantes, que podem ser diferentes e muitas vezes incompatíveis com o método de ensino utilizado pelo professor, pode ter um papel crítico no processo educacional e nas melhorias que possam advir. Este trabalho teve por objetivo verificar as contribuições que o conhecimento das diferentes preferências de personalidade e estilos de aprendizagem podem trazer para explicar o porquê da satisfação ou insatisfação dos alunos quanto à prática docente em uma disciplina considerada “problema” e propor ações de melhoria. Entende-se por disciplina “problema” aquela que apresenta altos índices de evasão, reprovação e reclamação por parte dos alunos.

Palavras-chave: Estilos de Aprendizagem, Tipos de Personalidade, Relação Professor-Aluno.

**Abstract:** To identify the personality types and learning styles of students is fundamental to the teaching-learning process to be efficient. To recognize the differences between the preferences of individual students' learning, which can be often incompatible with the teaching method used by the teacher, may have a critical role in the educational process and the improvements that may arise. This study aimed to verify the contributions that knowledge of different personality preferences and learning styles can bring to explain why the satisfaction or dissatisfaction of students and the teaching practice in a discipline considered "problem" and propose actions for improvement. It is understood by discipline "problem" that which has high dropout rates, repetition and complaints from students.

Keywords: Learning Styles, Personality Types, Teacher-Student Relationship.

## 1. INTRODUCTION

Every human being has his way to assimilate and process information. Some guess that theories are easier, others like practical work, others like the visual information, others prefer the spoken and written explanations.

The mapping of learning styles has been a valuable tool for teachers, who begin to understand the form of student learning and to students in order to examine their learning preferences and develop strategies.

Belhot (1997) points out that these different ways of being, composed of the characteristics that make up the student's profile regarding to the motivation to learn define the so-called learning styles. Accessing this information is crucial, as they help in the process of personal knowledge and the establishment of strategies for educational motivation.

Taking into account that students have different ways of being and learning and that teachers also have their own personality preferences and teaching, the purpose of this study was to determine whether the different personality preferences and learning can explain the high rate disapproval and dissatisfaction of students and the teaching practice in a discipline considered "problem".

## 2. THE LEARNING STYLES

According to Trevelin (2007), people are different in their way of being for several reasons. But what makes people think, feel, desire and act so differently? Why in the same situation a person laughs, the other cries, the other gets angry?

For Carter (2000) learning style is a particular way in which the mind receives and processes information. There is no one right way to learn or the best way to learn. Each person have their own style in the learning process. Knowing how a person learns is the first step to know who she is. This is information that becomes crucial for teachers to motivate learning.

Although some educators recriminem this type of classification, we must make clear that the tools presented in this paper are intended to provide support for the teaching practice fits best to the beneficiaries of education. This diagnosis, which was made through the styles, allows a more focused educational planning for students' reality.

### 2.1 Felder-Silverman's Learning Model

Richard Felder, along with Barbara Soloman developed the ILS, Index of Learning Styles, or Index of Learning Styles that determines, based on responses from 44 questions, the learning preferences of the individual.

According to Felder (1987), each person has an individual style of learning, according to their preferences in the dimensions proposed in the model, such as: **Perception of Information** - Sensory / Intuitive; **Reception Information** - Visual / Verbal, **Information Organization** - Inductive / Deductive; **Information Processing** - Active / Reflective, **Sequencing Information** - Sequential / Global.

**Active and Reflective Learners** - the active learners, according Felder (1988), tend to comprehend and retain information better working actively, acting on something - discussing and applying the information or explaining it to others, tend to like the teamwork. Reflective learners prefer to think about information and prefer to working alone.

**Sensory and Intuitive learners** – sensorial learners enjoy learning facts, solve problems with well-established methods, without complications and surprises. They prefer practical information, are methodical. Intuitive learners prefer discovering possibilities and relationships, like news and get bored with repetition.

**Visual and Verbal Learners** - the visual learner more easily remember what you saw - pictures, flow charts, films, demonstrations. Prioritize the information they receive imaging,

diagrams, graphs, diagrams. This verbal learner has more facility with words, written or spoken explanations. They emphasize what is spoken, what is written, the formulas.

**Sequential and Global Learners** - sequential learners tend to learn in a linear way, in sequenced steps. Global learners tend to learn in large jumps, absorbing material almost randomly. The sequential tend to follow paths to find solutions, the global may be able to solve complex problems quickly, but may have trouble explaining how they did it.

Felder and Henriques (1995) also argue that the differences between the learning styles of students and their teachers affect the quality of student learning. They say that a teacher who adapts the content of their lessons to the two poles of the four dimensions best suited to most students.

## 2.2 Keirsey and Bates' Learning Styles Model

Keirsey and Bates (1990) claim that to understand the temperament of a person is essential to understand it. Each person has his way, his temperament. Believing that temperament is the key to understand the individual, they developed in 1984 this classification. This instrument consists of seventy questions, and each respondent must choose one of the alternatives must (a) or (b). Thus, the respondent will have his psychological profile determined by four basic preferences: extroverted (E) or introverted (I), sensorial (S) or intuition (N) rational (T) or feeling (F), structured (J) or flexible (P). Below are the meaning of each choice.

E - Extroverted - outgoing, likes to talk, interact and work with people, likes to test experimentally and using things.

I - Introvert – territorial, want exclusive spaces, prefer to work alone; need concentration to read and meditate; oriented inner world.

S - Sense - realistic, look at what is real and remains in effect; accurately observed details; oriented facts, values the experience and knowledge accumulated through it, depends on the persistence-transpiration.

N - Intuitive - speculative, always looking for alternatives for change or improvement;-oriented concepts, meanings and possibilities, you can start an activity without having completed the previous one, is attracted by metaphors, images, symbols, depends on inspiration.

T - Thinker / Background - impersonal, makes choices rationally, make decisions based on logic and rules, tends to prioritize objective criteria; reacts positively to words such as principles, policies, laws, criteria and firmness, have good arguments, usually based on logic, not comfortable with personal judgments.

F - Emotional / Humanistic - staff, tends to give a subjective treatment when dealing with people and projects; reacts positively to words such as emotion, intimacy and human values, make your choices based on the personal impact of this decision on the people involved, feel-become more comfortable with value judgments, rather than being objective and logical.

J - Judging / Structured - planned, prepares and follows schedules; seeks to solve the problem, even with incomplete data, tends to set deadlines, seeking to serve them, and expects others to do the same, seems to have an ethic in which the work comes before everything.

P - Perception / Flexible - open, is more reluctant to make a decision, the decision to delay a more detailed and perhaps more alternatives; easily adapts to the changes.

## 3. CASE STUDY

The case study was conducted in a Faculty of Technology of the State of Sao Paulo in Brazil, FATEC / CEETEPS. The sample consisted of students and professors of Technology in Data Processing and Technology in Industrial Production of the morning, the first semester to 5<sup>th</sup> semester. The time for completion the data collection was one year.

Data collection was done through two instruments: the Index of Learning Styles (Learning Styles Index - ILS) from Felder and Soloman (1991), and the Temperament Sorter (Keirsey Temperament Sort) Keirsey and Bates (1990). In these instruments the IAS (Institutional Assessment System - IAS) FATEC was used to verify the discipline that most disapproved of his teacher and was named Professor X.

The results presented in Table 1 indicate that the majority of students in the sample studied (N = 260) has the profile of Active Learning / Sensory / Visual / Sequential and personality profile Extroverted (E), Sensory (S), Rational (T) and structured (J), ie, the subtype is ESTJ most students. Thus, it should compare them to the profile of teachers.

Using the data of teachers (N = 16), it was found that the ILS proposed by Felder and Soloman (1988), 69% is active and 31% reflective, 69% and 31% is sensory intuitive, visual and 69% is 31 % is verbal and is 56% overall and 44% is sequential, as shown in Table 1. This means that teachers have an active profile, sensory, visual and global, as well as the profile of most students, except in size sequential / global where most students is sequential and most teachers is global.

As for the personality profile of teachers, the results obtained with the application of Temperament Sorter, shows that the predominant profile of teachers is 68.8% extroverted and 31.2% introverted, 50% sensorial and 50% intuitive; 87.5% rational and 12.5% emotional and 100% of teachers are structured and 0% is flexible. In this case, most of the outgoing teacher has a profile (E) and sensory (S), intuitive (N), rational (T) and structured (J). Thus, the predominant subtype is ENTJ or ESTJ since the sensory dimension / intuitive the result was 50% for each dimension.

**Table 1 - Predominance of the dimensions of learning and personality of the PI and PD students and teachers in comparison with Professor X**

<b>Learning Dimension</b>	<b>Industrial Production %</b>	<b>Data Processing %</b>	<b>Professors %</b>	<b>Professor X %</b>
Active	65.4	66.7	68.8	35
Reflexive	34.6	33.3	31.2	65
Sensorial	66.3	78.2	68.8	65
Intuitive	33.7	21.8	31.2	35
Visual	62.5	72.4	68.8	70
Verbal	37.5	27.6	31.2	30
Sequential	54.8	54.5	43.7	70
Global	45.2	45.5	56.3	30
<b>Personality Dimension</b>	<b>Industrial Production %</b>	<b>Data Processing %</b>	<b>Professors %</b>	<b>Professor X %</b>
Extroverted	76.9	73.7	68.8	60
Introverted	23.1	26.3	31.2	40
Sensorial	55.8	51.9	50	65
Intuitive	44.2	48.1	50	35
Rational	66.3	59	87.5	100
Emotional	33.7	41	12.5	0
Structured	83.6	75	100	85
Flexible	16.4	25	0	15

According to the results of both inventories presented in column 5 of Table 1 was noted that Professor X has a profile that differs from other teachers which supports the hypothesis that learning styles affect the teaching-learning relationship of a given discipline influencing the results obtained by the students.

The results presented show that while most teachers and students surveyed has the same profile of learning, except in size sequential/global (sequential learners and teachers overall), Professor X is different from other teachers in the dimensions active/reflective and sequential/global, because it presents a profile reflective, sensory and sequential. As students, this teacher is different in two dimensions: active/reflective and sensory/intuitive. By focusing on abstract information (intuitive style) and reflective observation (passive style), his teaching style is inconsistent with most students.

The results of the application of Keirsey inventory highlight the fact that the rationality of the teacher with a score of 100% rational and 0% emotional. Perhaps trying to understand the student as an individual who has his faults he can get better results. This fact does not contradict the theory innate, but simply the possibility of working teachers increase their tolerance of consciously adapt to each new situation.

## CONCLUSION

In this study, there was a concern to make sure that the incompatibility of learning styles and personality characteristics of students and their teachers may be indicative of a high repetition rates. From the data presented, it's possible to see that the types and styles of those involved in the teaching-learning relationship are important not only for the adoption of new methodologies, but mainly for the teacher to understand the differences between students and also understand the differences between the way you learn and how to learn from their students.

In continuation of this research is being carried out further work in order to help Professor X in his classes through the study of learning styles and to propose new teaching methodologies specifically for their disciplines. At first the teacher received information about their preferences (self-knowledge) and his students and now has a stage of consciousness which is the first step to any change is made. Preliminary results already show a decrease in the levels of evasion.

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