

NEURO LINGUISTIC PROGRAMMING: A PERSONNAL DEVELOPMENT TOOL APPLIED TO THE PEDAGOGY AND TO THE IMPROVMENT OF TEACHERS/STUDENTS RELATIONS

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Abstract: With the recent student's behaviour evolution, we have some difficulties in evaluating their needs and in understanding their motivation for scientific studies. These difficulties generate a loss of effectiveness in our teaching process. Thus, some alternating pedagogical approaches are going to be tested. We suggest here, the use of N.L.P (Neuro Linguistic Programming) as a tool to improve the motivation and the quality of the relation between teachers and students. Some person from the technical staff of our School has been trained to these NLP techniques. It makes it possible to measure the effects and the impacts of NLP in particular at the time of the of the free electronics projects in 2nd year.

Key words: Pedagogical experience, student's motivation, human behaviour exploration, Neuro Linguistic Programming,

1. Introduction

1.1 ENSEIRB engineer school presentation

The "Ecole Nationale Supérieure d'Electronique, Informatique et Radiocommunications de Bordeaux" is one of the graduate national engineering schools, known as 'Grandes Ecoles', in France. It is also one of the oldest, as it was founded in 1920.

ENSEIRB has developed with the growth of information and communication technologies. The Computer Science Department was created in 1986 to complement the original Electronics Department and was followed in 2000 by the new Telecommunications Department.

1.2 The new student's behaviour

We have noticed for a few years a global change of student's behaviour in the three departments. Consequently, the teachers are in front of a new kind of public and do not know how to manage behaviours which are not familiar.

First, from annual opinion poll performed at the arrival of student in our school, we can say that 1/3 of our students are into the school by conviction and choice. The second 1/3 are in our school by chance but could have interest in any other thematic

engineering school (mechanical, chemical, architecture and so on.). And the last 1/3 is here because they do not know what to choose or they did not have the choice (due to French High School selection process)

Secondly, the time dedicated to home work has drastically decreased due to the evolution of the civil society. The students of today are solicited by different leisure, games and many other extra activities. As becoming a competent electronic engineer requires a heavy work and a high level of knowledge, we have to solve a quite difficult paradox.

Thirdly, we observe since 1995 some major evolutions in student's behaviour: We can quote the modifications of the cycles of attention of the students. Two main tendencies appear:

- Reduction of the long cycle of attention (inherent in human being and normally about 45 min with 1 hour): on a traditional course of 1 hour, we observe a progressive unhooking of the audience faster than before.
- Multiplication of the short cycles of attention. These one duration cycles from 6 to 7 minutes, are also inherent in the human being. They have appeared however more openly since a few years.

They are concretised by successive unhooking and accosting during the course, phenomenon improperly qualified of "zapping" by some.

At least, we also observe a global disaffection for theoretical lessons: This phenomenon is confirmed by national statistics. There is a global loss of motivation for the scientific curriculum. Economical, commercial studies seem to be now more attractive for this new generation of students.

1.3 Consequences of this evolution

According to this situation, it appears a kind of ditch between supply and demand regarding education needs. The two need to be given in phase : As the previous teaching methods doesn't match anymore with these students of today, we have to test other teaching methods to restore effectiveness and quality.

1.4 Alternating pedagogical approach testing

In front of this evolution, we have obviously tried different pedagogical approaches like "pedagogy by project" [1], "professional project", "e-learning" and so on. And we obtained interesting results.

But, one of the complementary possible ways of investigation is to "play" with psychological aspects of the teaching process: The two past years, a first approach has been done, using the Hermann diagram [2] as a psychological tool to globally optimize the interest and the motivation of the students.

Some other comparable and powerful approaches often used in private company to improve the commercial or manufacturing efficiency, can also be suitable for pedagogy purposes: They all use a human behaviour modelling with some particularities. But, even if there are some differences, all these approaches obviously converge towards the same goal: to better know oneself in order to enhance your motivation potential and your communication ability.

Looking deeper at the individual evolution of student's behaviour during the full classroom courses, we are now convinced that improvements can be obtained by first changing our own behaviour and our own approach of the teaching process. So, we naturally paid attention to NLP techniques.

This approach [3] is born in States in 1973. Well known in industrial or commercial business since a

long time, we are trying to transpose it in our scholar system. Indeed, in order to improve the methods of teaching, it is extremely useful to take into account some internal processes inherent to human being.

2. NLP basis

NLP is well known all around the world. The Neuro Linguistic Programming is a tool which has been developed to answer to the following question: « Why some people obtain exceptional and durable results better and faster than the others (in private or professional life) ?

John Grinder and Richard Bandler, the inventors of NLP, have carefully observed during many years the behaviour of professional communicators in the fields of business, education, law, and medicine. From these studies, they tried to build a behaviour modelling. They also gave explanations to the "success attitude" and suggested different tools to improve the communication quality. We can now define the words N.L.P :

Programming: throughout our life, we program ways of being, of thinking, of behaving, according to what we live and what we meet.

Neuro: this ability to program ourselves depends on our neurological capacities. Brain, nervous system enables us to apprehend the external world, to perceive, store and organize information and to deliver such or such answer to a specific situation.

Linguistic: verbal and non-verbal language reflects this manner of representing and apprehending the world.

2.1 The human sensitive channel definition

We are in contact with the exterior world or environment through our sensory channels: The sight, hearing, the sense of smell, the touch, and the taste. However, people have a dominant channel in learning something. For example they will use the sight while others will use hearing.

We can mention that « internal digital hearing » well known as the « small internal voice » in popular words, (when we speak inside to ourselves) is not a sensory channel. Thus, we can not learn from the

environment by this way. An immediate consequence is that to make recite the children a lesson “in their head”, is not a good learning method.

Thus, it is important for someone who wants to optimize the information transfer efficiency toward an interlocutor, to adapt its behaviour to the dominant sensory channel of this interlocutor.

The concept of the dominant sensory channel can be illustrated as follow: When you ask several people to tell their last beach holidays, you can have different answers depending on their dominant channel. Some of them will remember family discussion, the waves sound. Others will visualize the sand beach and the sand mountains colours and shapes, while others will remember the feeling of heat, the sands texture or the caress of fresh air on the skin.

The whole “human information processing” behaviour can be summarized by the figure 1.

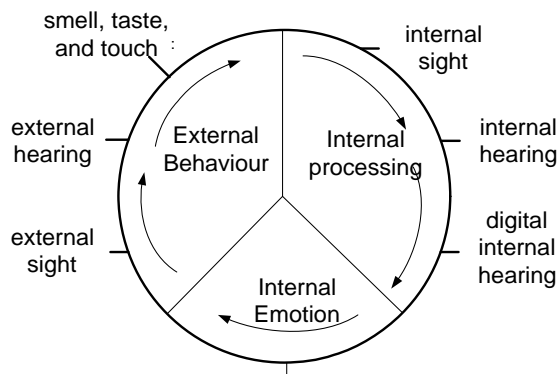


Fig 1 : Schematic diagram of human behaviour

An external situation or event is first received through the sensory channels (external behaviour). Then, we switch in an internal process mode: it means that we create in our brain a representation of this situation or event. This representation can be based on the sight, hearing or other channel depending on our dominant channel. After this step, one or more feelings (which can be positive, negative or neutral) appear inside us.

2.2 Information processing human limits

Our conscious field is limited to 7 (+/-2) items “mnesic” : It means that we are able to process between 5 and 9 information at the same time (cf

“**The magical number seven**” from Georges MILLER [4]). After that, we automatically switch in the internal conscious mode (internal sight, internal hearing, and digital hearing (the famous “internal small voice”). That is, we are no more able to receive new information from environment until the next cycle. It is like if our short term memory was temporary full. The switching cycles external to internal conscience states occurs every 45 seconds due to the inherent ability of human being. This phenomenon has been confirmed by testing many people. If some one gives a lecture of a story in front of a group of people, each person will then remember 5 to 9 items but not obligatorily the same ones. As a direct consequence of this mental intrinsic limitation, we can guess interesting information about classical courses duration, structures and contents.

2.3 Mental cutting size

The received information from the exterior world is cut into blocks by the brain before to be analyzed. It is an inherent “information processing” due to human being. The size of cutting varies according to the individuals:

- There are people, who “cut” small, i.e., whose speeches are precise with many detailed examples. These people are very factual.

- There are people who « cut » large, i.e. that their speeches are very conceptual and have a high level of abstraction. They do not need to use examples or to detail their matter.

We give here a short example to illustrate this cutting concept :

- large cutting size : ”yesterday, I ate an apple”

- small cutting size : “yesterday morning at 11h30 am, I ate a quite juicy golden delicious apple.”

A direct consequence of this mental cutting is that during a course or a lecture, it is thus necessary to use two modes of mental cutting, so that teacher speeches can be synchronized with the student’s size of cutting.

2.4 Mismatching and matching attitude [5]

In NLP words, a matching attitude means “yes” while a mismatching attitude means “yes but “.

In the human communication field, we try to understand or to describe the things around us. The people seek or establish links by similarity or difference with what they already know. They compare information, they weigh up, either while validating or while invalidating, what is told as. More precisely, they establish links (resemblances) or they find counterexamples (differences) with what is told as.

During training periods, it is better for the speakers, to practice « matching » with the audience. Indeed, it is easy for someone to always find a counterexample or an exception which invalidates the information: thus, a “mismatching attitude” limits the fact of learning something new.

As we all are switching spontaneously and permanently from matching to mismatching attitude along the life, we have to know when it is better to “match” or to “mismatch” with someone.

Thus, during a communication process, it is necessary to replace a mismatching person within the framework of the conversation because when she invalidates what it is said, she will seek an example which leaves this framework.

2.5 Primary sorting

In NLP language, the four primary sorting keys indicate on what people are focused in the apprehension of an ordinary or extraordinary situation. Indeed, the individuals sort on:

- People: People, who have this primary sorting like the contact with the others, love the verbal exchanges. They appreciate being surrounded by other people and as soon as they are back at home, they phone or invite them.

- Activity: people who sort on the activities need to be busy, even with always making the same things. Indeed, they want to have always something to do.

- Information: the individuals who sort on information want always to be informed, or to collect information in order to improve their knowledge.

- Place: this sorting is very often secondary and comes in complement from one of the three other one's. The people who use this sorting are sensitive

to the energy or with calms emanating from a place because this one gets a particular emotion to them.

The individuals have all the four primary education sorting but there is of them one of dominating which is often activated. One more time, knowing the primary sorting keys of the interlocutor allows an optimized communication.

2.6 Feed-back

One of the postulates of the NLP is that we are not what we do: We should not confuse our behaviours and what we are or in other words « the map is not the territory ».

In education world, the teacher is present to judge the work of a student and not the student himself: It is not because a student makes many mistakes that we can conclude that he is inapt or inefficient. It is important to highlight that a student in training will make progress only if he makes errors and takes benefits from it.

The information given by the teacher as “Feedback” is just an information about the work of the student. It is given to take retreat or distance compared to his work, nothing more.

3. Using NLP for the electronic student's project management

Electronic projects in 2nd year study are held as weekly sessions of four hours, twelve students, during all the year. This is multi thematic projects including analogue, digital, power and RF circuitry basic's. There is one teacher for 12 students and one technical storekeeper (for the management and distribution of the required electronic components). Our storekeeper has been trained to NLP and is now NLP master graduated. Since we use this technique, we observed some evolutions in terms of efficiency and relation with the students. We give, in the next paragraph, some results we obtained by using NLP.

4. Results

When working on psychological aspects, it is always difficult to quantify the results: there are no tools to measure the impact, no material proofs. Some times, the changes are so subtle and fine that even the

people who are involved are not able to detect them. It is often after several years that one perceives the behaviour's evolution.

We can just observe subjectively and discuss some interesting changes on the following points:

- Modification of the student's behaviour asking information or components to the storekeeper. In the past, the storekeeper was often considered by the students themselves as a simple "component's distributor". Now, a balanced and harmonious relation is established with more mutual respect and confidence. The students discover also that the storekeeper is an interesting technical and human support.
- The improvement of relation's quality between teacher, storekeeper and students has a secondary beneficial effect on the student's behaviour: Before, the students often seemed defeatists and fed up with a lot of things. Now, we notice a better mental and physical presence, and also a more active and positive attitude.
- Modification of the group attitude: the improvement of relation act like a positive contamination to the whole group. With a better work atmosphere, we observe an increasing and dynamic emulation between students and positive team spirit.

Of course these results have been observed on a few groups of students. So, it is too early to have a global feed back. As it is a new experience for us, we can not compare these observations with others inside our school. No other similar experience has been done in our scientific university. But these first tests are very interesting and encouraging. We hope that this small quivering will grow in the near future.

Twenty years ago, a manager of the T.R.T French radio communication company told us like a joke:

"In an industrial company, there are no technical problems, there are only human problems."

With the NLP experience, we understand now perfectly this sentence which replaces the human being in the center of all the concerns.

5. Conclusion

With this experience, we can say that NLP can be also applied in educational world to improve the motivation and the quality of relation between teacher and students: NLP is a power full tool which allows the users to synchronise their own behaviour on the one of the others with tolerance and humility. The information transfer between two people may be then optimized. NLP is also power full to discover your personal goal and to mobilize your own resources in order to reach these goals. Finally this approach also makes it possible to learn how to learn, because we have this faculty compared to the other animal species, which is to be able to learn how to better learn: if our training strategy does not match anymore with the needs, it is necessary to use an other one which is more adapted with our operating mode. As a loop without end, we will continue in these permanent pedagogical researches.

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