Teaching Practice and Motivation of Students in Schools

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***Abstract*-- The aim of this article is to study the obstacles to motivation, its role in the learning process, the difficulties encountered with this concept, both by teachers and by students, and finally to propose solutions to these difficulties to optimize the development of motivation in students. Academic success is linked to a prior and necessary motivation allowing perseverance and the maintenance of positive attitudes to allow the student to achieve self-actualization, as well as the achievement of previously set goals. This process is highly desirable for the good process of teaching and learning in the school environment. Several studies have been carried out to improve the level of education and defuse the issue of demotivation in students. This is what motivated this contribution, which aims to demonstrate, the main factors that can cause the lack of motivation for students and highlight the challenges to the good process of the course and the acquisition of new knowledge.**

***Keywords*-- Motivation, student learning, academic success, Teaching practice.**

I. INTRODUCTION

The aim of this article is to study the obstacles to motivation, its role in the learning process, the difficulties encountered with this concept, both by teachers and by students, and finally to propose solutions to these difficulties in order to optimize the development of motivation in students. Academic success is linked to a necessary prior motivation, allowing perseverance and the maintenance of positive attitudes, in order to enable the student to achieve self-fulfillment, as well as the achievement of previously set goals [1].As for Pintrich and Schrauben (1992), they consider that "Motivation in the school context is a dynamic state which has its origins in the perceptions that a pupil has of himself and his environment and which encourages him to choose activity, to engage in it and to persevere in its accomplishment in order to reach a goal ".

So, it can be argued that motivation promotes the student's commitment to the task and involves him in a learning process that will lead him to the goal he has set for himself; it pushes the student to act and supports his action.

Hence the importance of the teacher's role in this operation, which consists of fostering a good climate of learning and success. Researchers Richard Deci and Ryan go so far as to distinguish two types of motivation depending on whether it is imposed or not:

- Intrinsic motivation: according to these same researchers, this is a voluntary practice of action based solely on interest and pleasure without waiting for external reward. Pressure, punishment, obligation diminish intrinsic motivation.
- Extrinsic motivation: the individual engages in activity by choice but without pleasure or contentment [2]. This commitment finds its reason for being in the desire to achieve other objectives (the case of compulsory subjects that the student does not necessarily like but will allow him to succeed in the school year).

Re-motivating its students has therefore become the main objective of all teachers, faced with the crisis in which the school is and faced with the failure of many learners. Our research therefore deals with motivation in the school context., its brakes, its important role in the academic success or failure of learners.

To understand concretely the impact that teaching practice has on students' motivation, and to verify certain factors responsible for their demotivation, it is important to take an interest in how motivation works within the class and to carry out real-life observations.

We then address a set of questions: how can the teacher help his student to have fun in learning to engage and persevere? What methods should he adopt to promote students' academic motivation? How to engage them in their learning? How can we help them regain a taste for studying? And finally, and because we believe in it very strongly, how should the teacher improve his teaching practices to allow optimal motivation among learners?

These questions challenge us as trainers within the Regional Center for the Professions of Education and Training, particularly when we support trainee teachers in the professional work situations. We were faced with a great

discomfort among students in schools due to our sense, a great need for academic motivation.

Motivation to learn in school means seeking to acquire the knowledge or skill that an academic activity is designed to develop, not merely getting the activity finished or doing the minimum necessary to meet requirements [3].The past decade has witnessed an increase in research on teacher motivation [4 to 12] which has been proved a crucial factor closely related to a number of variables in education such as student motivation, educational reform, teaching practice and teachers' psychological fulfilment and well-being[12], Börü, Nese provide an in-depth analysis of the internal and external causes that were influential towards job motivation of the teachers who were selected according to some success performance criteria for the institutions which is called science, art school where the gifted students are educated [13]. Erik E. J. Thoonen and al. examine the relative impact of transformational leadership practices, school organizational conditions, teacher motivational factors, and teacher learning on teaching practices [14]. Iying Han and Hongbiao Yin attempts to pose a comprehensive review of teacher motivation studies conducted from diversified theoretical perspectives [9], However, we study the obstacles to motivation, its role in the learning process, the difficulties encountered with this concept, both by teachers and by students, and finally to propose solutions to these difficulties to optimize the development of motivation in students.

II. METHODOLOGY

A.Sample

Our sample consists of 70 students, between 14 and 15 years old, in the second year of secondary school education from Ibn Habouss College in the Casablanca region.

B.Method

The skills targeted by the teaching of physics and chemistry aim to develop in the student the resolution of problems in different situations offered by the different parts of the program. It is about placing the student in increasingly complex situations where he can integrate knowledge, skills and attitudes to cope with the situation.

The situation- problem is an active learning method for the teaching of physical sciences. The use of the situation-problem was justified by the fact that it is one of the main factors of the competency-based approach, it is effective and of great importance for quality learning as well as development of student skills.

The method takes place in two phases, during the first we proceeded to make direct interviews, 20 minutes long, with 60 students of two classes and with five trainee teachers.

In the second phase, we used observation in a learning situation, at school during 6 sessions, in other words, observing activities based on the use of problem situations as they actually exist in the classroom. The observation grid contained the following elements: master of disciplinary content, learning planning, goals definition, contextualization of learning (student experience), task instructions, type of tasks, lesson steps, taking into account the prerequisites, learners representations, objectives/obstacles, progression of learning, error management, transitions/joints (flexibility), involvement on tasks, knowledge structuring, integration of acquired knowledge, transfer treatment of learners' difficulties.

III. RESULTS AND DISCUSSION

A. Summary of Interviews

The objective of the interview conducted is to quote and identify the statements of the students and the five trainee teachers about the causes of demotivation and the low participation rates of students in the construction of their knowledge and the development of their skills know- how.

Analysis of the students' responses allowed us to collect the following results:

- Chattering annoys students and has a negative impact on their motivation and prevents them from following the course properly.
- Group work helps pupils to exchange and share their ideas and helps them develop motivation and participate better in the construction of their knowledge.

The answers given by the pupils are varied. We present below answers that we think are the most interesting:

- At the beginning of the session, I did not understand the problem question of the lesson, yet I felt that the others were moving forward, and I was not. I had the feeling that I would never pass this subject.
- I wish there were a lot of people leaving the classroom. So many students don't want to work and prefer to chat. I would love to see them go.
- In physical sciences, the teacher explains well. I appreciate it very much. It forces us to work but the material is hard. I would like to make progress but sometimes it does not give us enough time to think.
- I always ask myself the question, what are some physical science courses for? Example: the teacher asks questions that have no relation to what we study or what we experience. Why is it important to acquire this information and learn it by heart?
- The major problems, according to the declarations of the teachers, which disadvantage the motivation of the pupils and their participation in the construction of knowledge are:
    - Difficulty in finding the triggering situation "first question", often drawn from the daily experience of the pupil, for which he does not have the answer at the start, and which is not sufficiently appealing to arouse in him the need to learn.

- There is not enough time for students to think about the problem situation.
- the lack of didactic means (experimental material).

B. Observation of the progress of the practical work experience based on a problem situation

The two sessions observed are presented by two eacher-trainees. We start with a triggering situation, which is characterized using scientific material. The goal is to fully understand the law of conservation of mass during a chemical reaction.

1) Situation- problem 1 presented by the first teacher:

- *First step: Presentation of the problem*

The teacher started her class with Lavoisier's proverb: "Nothing is lost, nothing is created, everything is transformed" and she asked the following question: Is this proverb valid for all chemical reactions?

- *Second step: Emission of hypotheses*

The students have tried to come up with their hypotheses. Here are some examples of responses obtained:

  - "Since all the reagents will be gone, then everything is conserved and nothing is lost",
  - "No, this proverb is not always correct because you get a new product".

- *Third step: Experimentation*

The teacher brought the students around her and was responsible for carrying out the experiment which characterizes the reaction between limestone $CaCO_3$ and hydrochloric acid.

The teacher poured the hydrochloric acid into a closed bottle, she put a piece of limestone next to it and measured the mass of the whole: $m_i = 92.6g$, then she put the piece of limestone in the bottle containing hydrochloric acid and closed it. The students noticed the appearance of an effervescence in the limestone and the formation of a gas (CO_2). After the limestone had disappeared, the students read the value noted on the scale: $m_f = 92.6g$ and noted that: $m_i = m_f$

- *Fourth step: Write the results, the interpretation and the conclusion*

After realizing from experience that $m_i = m_f$, the teacher asked them the original question a second time: "Does this proverb apply to all chemical reactions? ". The students were not able to link the original question with his remarks and conclusions. So, the professor was obliged to rephrase the original question: "Is the mass of the products the same as that of the reactants?" ".

"The students raised their hands and answered, “yes the mass of the products is the same as that of the reagents.” Then she asked if everyone was okay. The students answered yes.

Then his last question was "So does mass conserve itself in a chemical reaction?" All students are now convinced that mass is conserved at the end of a chemical reaction where $m_i = m_f$.

The ideas collected are represented in the following table:

Stages of the problem situation studied	Observations		Student participation
Question problem or problem	…	-not clear -not motivating	Weak
Emission of hypotheses	-all the assumptions written on the left of the table	-class badly managed -unmotivated students - insufficient thinking time	Weak
Experimentation (validation step)	- objective experience - experience well done	- poorly managed students - too much chatter	Weak
Writing of results, interpretation and conclusion	- well written course - $m_i = m_f$ (clear result)	- the pupils could not link the result with the problematic question	Impor

The major finding of the trainee teachers is the following: the use of problem situations is only beneficial for the students who participate. It is therefore necessary to find a way to involve as many of them as possible.

The question asked was as follows: what is the process to follow to have a high rate of motivation and student participation throughout a course developed by problem-based situations?

The hypotheses which seemed interesting, and which require verification are:

- The more precise and concrete the triggering situation, the more motivated the students and the greater the participation.
- The more the situation -problem is linked to the pupils' achievements, the more they are involved and motivated.
- The longer the confrontation and the time for reflection in the search for hypotheses, the greater the participation will be.
- The less chatter, the more focus and motivation of students.

C. Confrontation of hypotheses in the field of application

To improve the participation and motivation of the pupils, a second trainee teacher tried to do the same service again, with another class, by trying to verify the hypotheses made.

2) Situation problem 2 presented by the second teacher:

- *First step: Presentation of the problem*

The teacher began her course with simple and objective questions to know the students' prerequisites concerning the notion of the chemical reaction (reagents and products) and its relationship with the physical transformation after she had taken the following reaction as an example: $A + B \rightarrow C + D$;

and then ask this question:

Do you think $mA + mB = mC + mD$?

- *Second step: Emission of hypotheses*

The students were motivated to find the answer and try to come up with their hypotheses. The students' responses are:

“No, since we are getting new products,

so $mA + mB \neq mC + mD$” ;

"Yes, because all the reagents will disappear and turn into products where $mA + mB = mC + mD$ ” .

- *Third step: Experimentation*

The teacher gathered the students around her (in groups of 8 students in order to be able to manage them and master the manipulation) and carried out the experiment (reaction of $CaCO_3$ limestone with hydrochloric acid) and he did the same approach that the first professor.

- *Fourth step: results, interpretation, and conclusion*

Teacher 2 asked the students to repeat precisely and methodically what they had seen in their experience, the students were able to easily answer the problematic question and justify it in relation to the experience and then conclude that : $mA + mB = mC + mD$.

After making the course again and presented it by adopting the second method and following the above steps, a significant improvement in the participation rate of the students during all the stages is clearly noticed, so most students remained motivated and participated to the construction of knowledge and know-how.

D. Summary of results – Discussions

The observations of the two sessions based on the problem-solving approach are characterized by experimental activities allowing the following remarks to be made:

- Student representations arise during experimental activities but are not exploited by teachers.
- Students lack autonomy and often do not have the opportunity to show initiative.
- The organization of the classroom has a particular importance.
- The teachers focus more on the form and neglect the content: indeed, the situation-problem is part of a pedagogical approach that is part of the socio-constructivist paradigm of learning.

The objective of situation-problem is the construction of new knowledge or know-how by the student himself. The teacher offers the students a question built around a concrete problem of an enigmatic character. Faced with a problematic initial situation, the students formulate hypotheses, which oblige them to reveal their representations [13]. They then design an experimental protocol, then carry out the experiments that will test their hypotheses.

The comparison of the results observed with the expected results makes it possible to confirm or refute the hypotheses.

The observation and questioning tools used in our research therefore enabled us to identify and determine the nature of our intervention to enhance motivation in students.

These results will inspire our preventive and targeted actions based essentially on the repertoire of Roland Viau (2000). According to this researcher, the teacher must review his teaching practice and adapt it to the motivational needs of his learners. He proposes certain conditions, compliance with which can only promote optimal motivation in his last:

- *"The activity must be meaningful in the eyes of the student"*

the student should understand that there is meaning in the school tasks assigned to them and that they are of great importance in the overall process of training and learning. It is for this reason that the activity must be related to his experience and in harmony with his centers of interest.

- *"The activity must be diversified and fit into other activities":*

the student needs to understand that there is consistency of the task with other tasks, that there is no isolated or meaningless activity. Hence the interest of emphasizing the importance of school tasks in the overall process of training and learning.

- *"The activity must represent a challenge for the student"*

The student always tries to have a feeling of competence, to support him and help him to acquire it, the activity must be neither too difficult nor too easy for him to manage to explain his limits (not to say his failures) or his successes by his own abilities and his own work.

- *"The activity must lead to the production of a finished product"*

The task or the work to be done should not be the object of an evaluation only, but it should be of some use to those around the student.

- *"The activity must empower the student by allowing him to make choices"*

The logic of skills-based teaching is clear: make the student an actor in his own learning by offering him activities that engage him, that empowers him and that make him capable of building his own knowledge. Students must be able to make decisions and make choices, to be at the center of their learning and to be more independent.

- *"The activity must allow the student to interact and collaborate with others"*

The work around a common goal, the exchange as well as the sharing are of great interest for the accomplishment of the task; the student will discover the pleasure of working together.

- *"The activity must have an interdisciplinary character"*

Any activity is supposed to be correlated with another, any subject taught is also related to other school subjects: the principle of interdisciplinarity must be assimilated by the student.

- *"The activity must include clear instructions"*

The student must know how he is going to carry out his task, therefore the objectives and instructions must be clear and free from any ambiguity and vagueness.

- *"The activity must take place over a sufficient period of time"*

Giving time to the student to learn and to respect his rhythm, this is the best strategy to adopt to help him become competent and above all motivated.

- *"The activity must require a cognitive commitment on the part of the student"*

To carry out his task, the student must be aware that he must use all the knowledge already acquired and make strategic choices: this is no longer a simple application or repetition, but a cognitive engagement.

IV. CONCLUSION

The recourse to the personal, relational, and human dimensions has become more and more present in recent years. The educational research scene notes a growing interest in student motivation in response to the need for active engagement of the latter in the process of their academic success and personal development.

The role of the school today is not only to transmit knowledge, but it must help to develop know-how and interpersonal skills, by promoting a climate for personal development, confidence, assertiveness, and self-esteem. In Morocco, as everywhere else, the education system also pays particular attention to the development of the learner, at school, family, and professional levels.

Although essential, the theoretical content of the sequences and sessions is as important as the modalities of its realization. Research shows that the way teachers manage their class and get their students to work has a direct impact on the quality of their learning. It is time to focus on his professional gestures and his teaching practice to restore a taste for study in students. To motivate his students and support their commitment to their learning, the teacher must show himself to be committed. Committed, he can be by adopting the following professional gestures:

- create in his class a climate of confidence and respect for the rhythms of his students.
- reassure, show warmth and empathy. Be passionate himself to succeed in captivating his learners
- always be present and available to listen to his students and answer their questions.
- Be clear and precise in its objectives, realistic and understanding towards its students while promoting interactions and collaboration between the students.
- give more importance to the learning process rather than the results.
- multiply its teaching strategies, opting for those that invite the student to reflect and participate actively in class.

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