

Investigative approach and its influence on the level of development of the self-evaluation in pre-university students

Yolanda Peña Acosta^{a1}

¹IPVCE “Luis Urquiza Jorge”, Las Tunas, Cuba.

This paper exposes some results obtained in my PhD thesis (Peña Acosta, 2005). Its scientific novelty lays in the determination of a relationship between the implementation of the investigative approach in the developer teaching-learning process and the self-evaluation of the students about their school performance.

The investigative approach in the developer teaching-learning process (IA-DTLP) has been defined as a way to explain the process by relating it to the standard elements of an investigation. This includes all its components and links them to the search of knowledge on the part of the student, in constant interaction with the group and guided by the teacher. This approach is reflected in the goals, in the problematization of the contents, in the way of doing the evaluations and building the learning means, based on the design of the academic subject. In this way the teaching-learning scenario is transformed into one that trains the learners in the discover and develop of their own potentials.

The Vigotskian concept of zone of proximal development is central in this context and is not restricted to intellectual development, but it is also applicable to the development of the personality and, within it, to the development of self-evaluation (Peña Acosta, 2004a; 2004b). So, the didactic alternative carried out in this study is built as a process of mediation with both psychological and pedagogical tools. At the same time, the so called developer teaching-learning process (DTLP) has been systematized as the result of the interaction of three dimensions: activation-regulation, significance and motivation to learn (Addine Fernández, 2004). It additionally includes several sub-dimensions as can be seen in the first two columns of Table 1.

With these theoretical tools we hypothesized that the level of development of the self-assessment regarding school performance can be boosted within the pre-university education by a didactic alternative that connects the research approach with the DTLP through dimensions of self-knowledge, harmony and regulation of self-assessment. The specific tasks designed are listed below:

1. Critically evaluate the main tendencies of the process of integral formation of the personality as a goal of the pre-university education.
2. Characterize the self-evaluation of the students regarding their school performance from the psychological, sociological, pedagogical and didactic basis of self-assessment.
3. Diagnose the current state of students self-evaluation regarding their school performance,

contributing to the integral formation of the personality.

4. Design a didactic conception of the relation between the IA-DTLP and the self-evaluation dimensions of the school performance.
5. Build a didactic alternative for the pre-university education as a practical implementation of the designed didactic conception.
6. Explore the feasibility of the implementation of the didactic alternative using the criteria of experts.
7. Determine the transforming potentials of the didactic alternative through the execution of a pre-experiment.

In the critical analysis of the practical experience for the application of this approach to pre-university education we established fifteen requirements to be included, in order to effectively improve the integral formation of the students. These requirements of the investigative approach can be observed in the third column of Table 1. This table also shows the correspondence between these requirements and the dimensions and sub-dimensions of the DTLP introduced before.

The results of this study found relationships demonstrating that the IA-DTLP have potential to improve the DTLP while stimulating the development of self-evaluation as a psychological constructor of the personality. This didactic conception was used as a curricular decision-making basis for the design of the didactic alternative that involved all the components of the DTLP of pre-university education, with active participation of the student, the group and the teacher. The didactic alternative was designed to improve the process of integral formation of the pre-university student, but with the particularity that it was also consistent with the goal of enhancing the level of development of the self-evaluation of the pre-university student about her school performance.

The proposed didactic alternative was framed in the perspective of the four fundamentals pillars of education proposed by the UNESCO International Commission for the present century: Learning to value oneself properly, that requires learning to know and to know

Dimension	Sub-Dimension	Requirements of the Investigative Approach
Activation-Regulation	Productive-creative intellectual activity	Consider the age and previous formation of the student in research activities via an integral diagnostic including study techniques, study style and research abilities.
		Build indicators to evaluate the develop of the personality, measuring processes and not only results.
	Metacognition	Promote the self-evaluation and self-reflection on the learning. Actively involve the student in the determination of the goals and indicators of the evaluation.
Significancy	Establishment of significant relations	Orient research activities where the relation known-unknown is connected with daily life examples as well as interests and needs of the students that reveals the main idea of the matter under study.
		Establish the dynamics of the students' role; exposing their results, acting as opponents or evaluators, leader of the team or any other.
	Implication in the formation of feelings, attitudes and values	Make space for the collective reflection on the activity, the debate and the constructive criticisms.
		Include among the tasks the research about the life and contributions of scientists and outstanding figures in the topic under study.
		Establish the necessary sessions of exchange, collective or individually, with the teachers in charge of the research.
Promote the team-work as a formation for social work and life.		
Motivation to learn	Intrinsic motivation towards learning	Ensure that the accountability make students take reasonable decisions regarding how to better perform the research, avoiding rigid frames that hinder creativity.
		Give opportunities to choice the particular content to study in depth.
		Plan objective tasks in correspondence with the potential and abilities of the student.
	System of self-evaluations and positive expectations regarding learning.	Treat errors properly as sources of learning. Stimulate individual and not only global achievements of the activity.

Table 1: Correspondence between the dimensions and sub-dimensions of the DTLP and the requirements of the IA-DTLP.

oneself; learning to live together, that is best achieved when there is harmony in criteria, self-evaluations and valuation of the more significant people in the environment of the subject; learning to make, that implies the development of abilities to value others and value oneself; and learning to be, that needs a high regulatory potential of self-evaluation.

Notes

a. Email: yolypa@nauta.cu

References

Addine Fernández, F. (2004). *Didáctica: Teoría y*

Práctica. Editorial Pueblo y Educación.

Peña Acosta, Y. (2004a). ¿Influye la autovaloración en el sentido de la vida y la felicidad? *Revista Electrónica Innovación Tecnológica* 10 (4)

Peña Acosta, Y. (2004b). Las ideas de Vigotsky como fundamento en el estudio de la autovaloración. *Opuntia Brava* 12

Peña Acosta, Y. (2005). *Alternativa didáctica para elevar el nivel de desarrollo de la autovaloración del bachiller sobre su desempeño escolar. (PhD Thesis)* ISP "Enrique José Varona", La Habana, Cuba