

# Perceptual maps as reflection tools for teaching practice effectiveness in adult education.

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**Abstract** - Human resources management in the Public sector require the design and the effective implementation of specialized staff training programs in a way that corresponds to the implementation of the new Public Policies with the ultimate aim of the qualitative and effective service of citizens and enterprises. One of the most important factors related to training programs effectiveness is the ability of adult educator to fully meet the requirements of the roles they called to embody. These roles in the literature appear to be multidimensional and demanding. Their successful support requires the adult educator's constant reflection on the methods he or she has followed in the educational practice. This paper proposes a way of critical reflection using perceptual maps applied in the Greek Training Institute (INEP) programs. The information gathered by the educator through the proposed procedure may contribute to the requested effectiveness of the training practice.

**keywords** - Perception Map, Adult educator reflection, Adult Educator Roles

## I. INTRODUCTION

Human resources are the main success factor of a company or an organization. Investing in human capital training is a key priority in the company's strategic planning [22] while committing money for staff training attest the relationship between human resources and company's effectiveness. The educational programs aiming in human resources development are the necessary investment that public organization ought to make in order to achieve long-term modernization results [23], as a consequence this leads to the strong interest in monitoring their effectiveness. In training programs, the educator is the most important factor of their success as he or she is called upon to choose the most appropriate of a series of existing strategies in order to achieve the satisfaction of the educational objectives [1] and thus to qualify as effectively the educational practice. In this effort they redefine the educational strategies to investigate their suitability continuously [25]. An active investigation way is the reflection on the educational process that he designs and implements. Therefore, the teacher's reflection acts as a process of redefining the chosen strategies in the teaching design, in order to confirm their effectiveness. Moreover, with the reflection the educator becomes a researcher of his action while contributing to his personal development [20,21].

In this paper the reflection of the educator arises through the investigation of the trainees perceptions after the completion of the educational process in the training programs for civil servants implemented by the Training Institute (IN.EP) of the National Centre for Public Administration and Local Government (EKDDA), which is the national strategic body for the development of the human resources of the public administration in Greece. Using perceptual maps, the aim is to redefine the educational practice adopted by the adult educator to meet the requirements of the roles he has embodied.

## II. ADULT EDUCATOR ROLES

In adult education the educator's roles are crucial and multidimensional [7, 15, 19]. Jarvis (2004) proposed seventeen different roles for adult educators, which proves their complexity [13]. The main roles to which an adult educator must respond in order to achieve the educational goals are based in multiple fields. Adult educators are taking the role of leader, designer, coordinator, mentor, animator, facilitator, and evaluator. They need to be flexible, to use a variety of teaching methods, to put themselves into the trainee's position and to not feel as authority [18]. In conclusion, an effective adult educator, encourages active learning, takes advantage of time properly, aims at feedback, supports high expectations, is innovative, promotes communication between learners and finally adopts a variety of learning methods.

INEP's training programs aim to update or to acquire new knowledge for civil servants in order to respond to their individual needs, operational objectives and organizational changes of the department in which they work. For the development of public human resources, educational action focuses on innovative learning techniques such as on the job training, mentoring, coaching, distance learning, collaborative learning and special training in cutting-edge subjects [23]. Therefore, the adult educator should adopt the role of "Mentor" and he or she should properly guide the learners, facilitate them and enhance their self-reliance [12].

At the same time, the trainee's main characteristics are their experience, the tendency for self-directed learning and the critical way of thinking [3]. These characteristics require educators to activate student's experience, to challenge them, in order to develop critical thinking [11], so as to have the ability to analyze and evaluate the validity of their studies by comparing their views with those of the educator and their fellow trainees. In addition, they require the creation of a positive learning environment where a sense of mutual trust and equal participation is clear. The facilitative role of the educator can satisfy the above requirements, because the "Learning Facilitator" releases curiosity, allows movement in new directions related to personal interests, releases the mood for research, and trusts the creative tendency of the individual.

### III. ADULT EDUCATOR REFLECTION PROCESS

Reflection is defined by Dewey as a specialized form of thinking [that] stems from doubt and perplexity felt in a directly experienced situation and leads to a purposeful inquiry and problem resolution [16]. For Black and Plowright reflection is “a process of engaging with learning and/or professional practice that provides an opportunity to critically analyze and evaluate that learning and practice (p.246)” [4]. Furthermore Zeichner and Liston define reflection as a description of a situation, as an investigation of the initial assumptions and understandings around it and as the insistence on an open and responsible attitude of criticism and reconstruction of the practice [24]. Reflection is a form of critical thinking, as the latter arises when we try to discover the assumptions that influence the way we think and act [5]. From the above foundational definitions, there is a consensus that reflection is an active endorsement procedure for any information, aiming to seek the foundations on which it is based and its consequences [17].

Reflection as a way of self-assessment fulfils two key roles, on the one hand it stimulates a dialogue on the objectives' priorities and quality criteria of the educational process and, on the other hand, it contributes to the achievement of these objectives through the use of appropriate and easy-to-use tools [14]. In the context of this paper, reflection is approached as the ability of adult educators to think about their pedagogical and educational work in an effort to recognize, to review and to critique their perceptions and practices. This leads to more effective outcomes of the educational process and also to the teacher's personal development [2].

Perceptual maps are proposed as a mean of implementing educator's reflective process, because they can visually stand for the participants' perceptions of specific attributes of an educational program. They allow the separate encoding of a series of information via visual forms [8] on the basis of specific bipolar variables, for which the educator is interested in being informed, so that through a critical approach they redefine or maintenance the strategy that they followed. In this study, the dipoles adopted are related to the adult educator roles of the Facilitator and the Mentor. In the case of the Facilitator role, the dipoles concern willingness to change and creativity. While for the role of Mentor the respective concepts are competence and communication skills. The proposed method can be divided into five sub-steps (Table 1).

Table 1 Reflection process

Steps	Actions
1 <sup>st</sup> Step	Trainees are invited at the end of the training process to give written, anonymous feedback to the adult educator in response to the question: what are your feelings about the completed training process?
2 <sup>nd</sup> Step	The information collected is then classified based on specific bipolar variables associated with the adult educator's roles.
3 <sup>rd</sup> Step	Processing the information leads to a schematic representation of the trainee's perceptions about their learning experience and by extent to the formation of specific perceptual maps.
4 <sup>th</sup> Step	The educator is reflected on the information presented in the perception maps as these maps represent how the trainees perceive their educational experience.
5 <sup>th</sup> Step	The educator is either confirmed for his/her choices on the selected teaching methods or he or she identifies problematic areas that need to be improved.

### IV. METHODOLOGY

The proposed method was implemented in 20 educational programs offered by IN.EP. in various cities in Northern Greece. The subjects of the training programs are part of the thematic cycle of public administrative reform and its decentralization. In particular, the educational programs profile to which the empirical approach has been applied is presented in table 2.

Table 2 Training program information

Program	Object	Trainees' Profiles
1 <sup>st</sup> - 14 <sup>th</sup>	Management	Officials of the public administration and local government, owing 1st and 2nd degree responsibility position: Heads of Department.
15 <sup>th</sup> -20 <sup>th</sup>	Management Through Objectives	Officials of Ministries of Central & Regional Administration with tasks and priorities related to the definition and measurement of efficiency objectives of their services.

Adult educator's reflection process is presented in detail for one of the 20 programs to which it was implemented. The feedback given by the trainees of the 1<sup>st</sup> training program is gathered in table 3.

Table 3 Trainees Feedback

Trainee feedback	Frequency %
(felling)	
Interesting	4,00%
Positive Change	20,00%
Excellent	24,00%
Transformation	12,00%
Culture	4,00%
Knowledge	38,00%
Constructive	4,00%
Self-assessment	8,00%

Brain Storming	4,00%
Satisfaction	28,00%
Productive	16,00%
We can	4,00%
Positive experience	8,00%
Pedagogical competence	28,00%

The next step concerns grouping these feelings and ranking them in the basic dimensions of the roles that the educator ought to support (Table 4).

Table 4 Correlation of trainee’s feelings with the dimensions of the educator's roles

Feedback (Felling)	Transformational Mood	Creativity	Competence	Communication
Interesting	X	X	X	X
Positive Change	X			
Pedagogical competence		X	X	
Excellent	X	X	X	X
Brain Storming		X		X
Culture		X		X
Knowledge			X	
Constructive	X		X	
Self-assessment		X	X	
Transformation	X	X		
Satisfaction	X	X	X	X
Productive				X
We can			X	X
Positive experience			X	X

The adult educator's reflection according to the following maps “fig.1&2” lead to conclusions about the strategies that were adopted during the educational practice. In particular, the perception maps of the 1st training program shows that the educator has effectively supported the roles of the Mentor and the Facilitator, as the perceptions of the trainees are concentrated in the high degree area of communication and competence as well as in the high degree area of creativity and transformational mood. The above confirm the educational intervention success as the placements "Excellent", "Satisfaction", "Knowledge", "Pedagogical Competence" and "Positive Change", show the highest frequency. Furthermore, the educator can focus on placements that cannot be clearly interpreted, implying an omission or gap in the teaching methods. In the case of the 1st program such placement are the words "Interesting" and “We can”. These views may have a positive connotation, but they are relatively vague as there is no confirmation of the participant’s satisfaction according to their educational needs.

Figure 1. Perception map of adult educator as a Facilitator

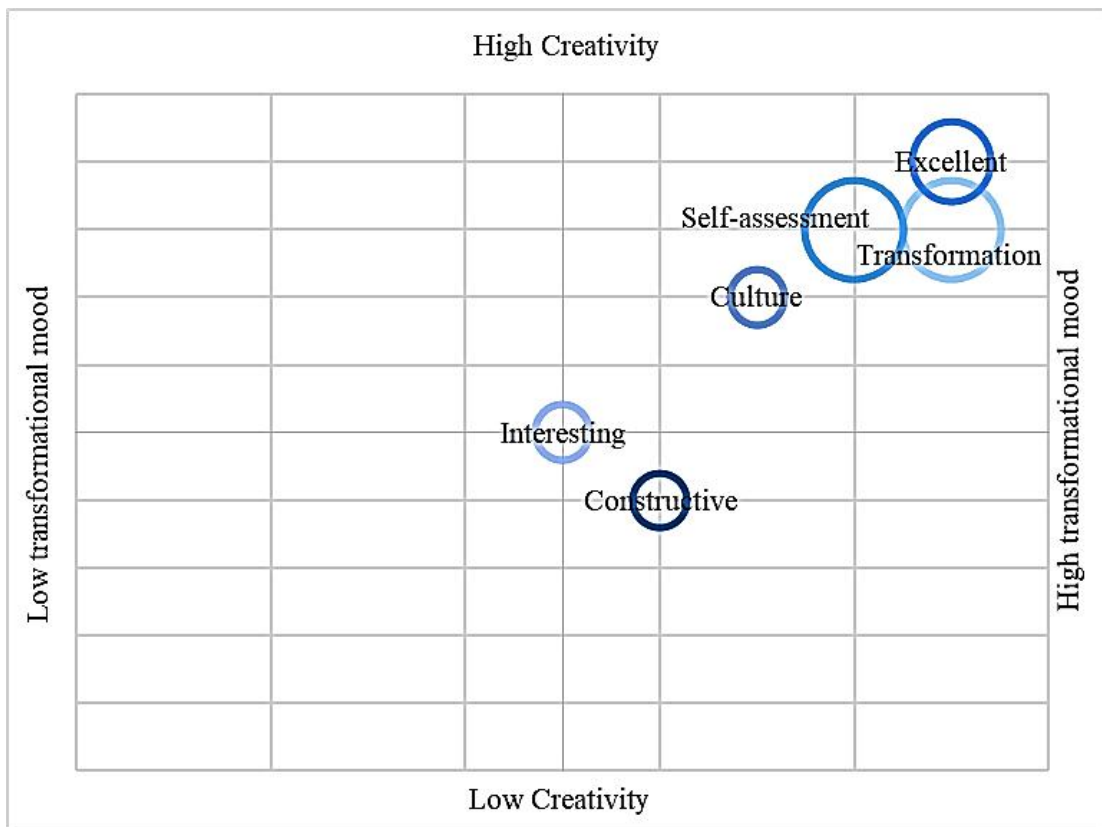
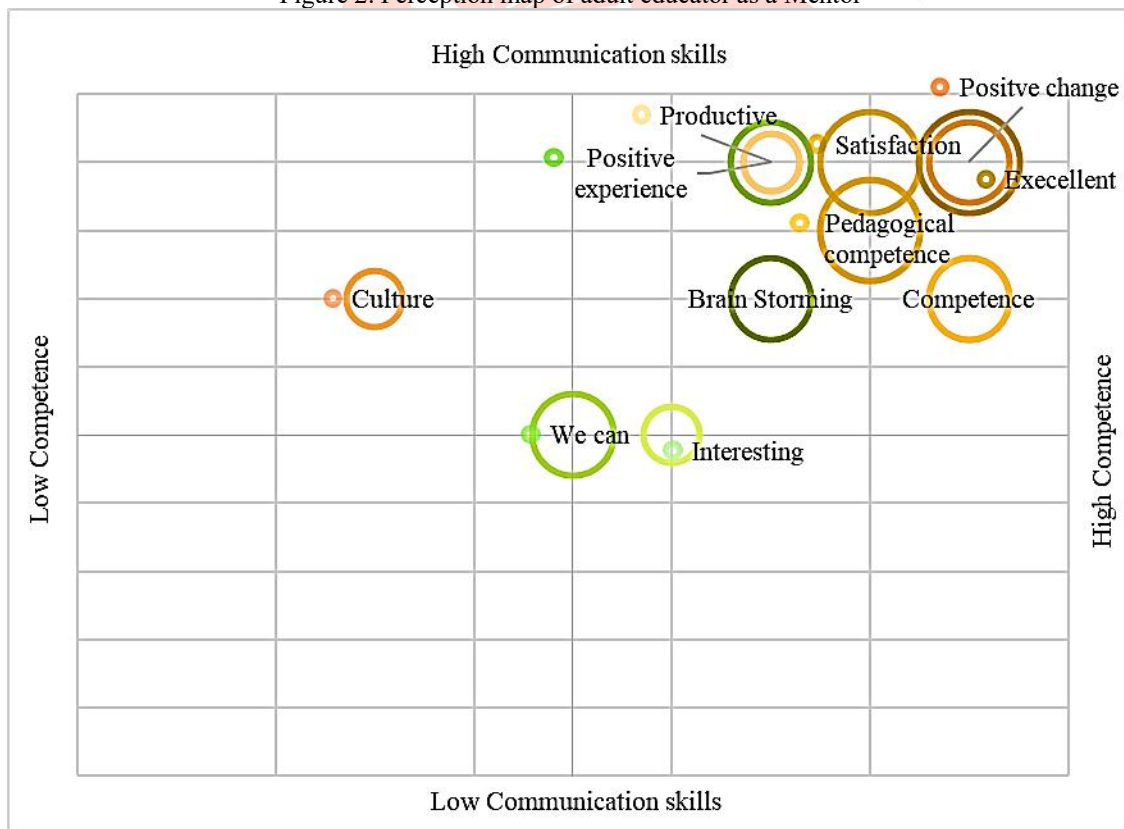


Figure 2. Perception map of adult educator as a Mentor



More generally, a perceptual map where most of the trainee’s perceptions are into the high area field, automatically lead to the confirmation of the educational strategies that the adult educator had employed. The use of perceptual maps as an adult educator’s reflection tool is proved to be an effective practice because in the 20 training programs that was been adopted, the overall satisfaction of the trainee public staff was high.

## V. CONCLUSION

The Recommendations of the European Council to the national governments of the Member States of the European Union, among others, mention the need to improve the quality of adult education [9], with the aim of contributing to the achievement of the main objectives of the Educational 2020 strategy [10]. The above proposed method moves in this direction, since it activates educators through a critical approach, which contributes to their personal development, resulting in an improvement in the quality of their educational work. Moreover, as Brookfield points out, everything starts with the educator's personal reflection as a journey of self-awareness that leads to a review of teaching practice for the benefit of learners as well as teachers themselves [6]. Moreover, it is well known that "*good teaching does not rest on a set of static, predetermined rules and techniques, but changing conditions require stochastic teachers, who reflect on teaching conditions, do not take them for granted and approach each case openly ( p.113)*" [16].

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