Resistance to change and transformational learning in distance education

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ABSTRACT
Researchers argue that experiential learning is related to the teaching that leads students to self-directed learning, aiming at their autonomy and emancipation. In this direction, some teaching models have been developed which can contribute positively to the cultivation of self-directed learning skills and to distance education programs. The use of collaborative techniques can contribute towards the above direction. In all models and theoretical approaches, however, educational planning is very important. The purpose of this paper is to investigate the degree of readiness of students in a distance education program for adults. The results highlight the role of the trainer-counselor, as the key person who will support self-directed learning and transformation and will help learners to overcome possible obstacles through collaborative techniques.

KEYWORDS
Self-directed learning, distance education, resistance to change

RÉSUMÉ
Les chercheurs soutiennent que l'apprentissage expérientiel est lié à l'enseignement qui conduit les étudiants à un apprentissage autodirigé, dans le but de leur autonomie et émancipation. Dans cette direction, certains modèles d'enseignement ont été développés qui peuvent contribuer positivement à la culture des compétences d'apprentissage autonome et des compétences de participation à des programmes d'enseignement à distance. L'utilisation de techniques collaboratives peut contribuer dans la direction ci-dessus. Dans tous les modèles et approches théoriques, cependant, la planification de l'éducation est très importante. Le but de cet article est d'étudier l'état de préparation des étudiants dans un programme d'enseignement à distance pour adultes. Les résultats mettent en évidence le rôle de l'instructeur-conseiller, car c'est lui qui soutiendra l'apprentissage autodirigé et la transformation et aidera les apprenants à surmonter les obstacles potentiels grâce à des techniques collaboratives.

MOTS-CLÉS

Apprentissage autodirigé, enseignement à distance, résistance au changement

INTRODUCTION

Freire, as cited by Fragoulis, (2003) by exploring the social thinking of adult education identified the active action of adults in every learning process. The shifting from the fundamentals and their transformation into a force for social change signal a dynamic path that evolves into effective interventions and social fermentations. In this context, every thought becomes action and movement. Each conscious expression of knowledge favors a functional critical thinking that approaches each action in a particularly active way responding to the empirical quests of the adult. Nowadays, distance education has created new conditions for learning and thinking in adult education. The educational use of teleconferencing can create new possibilities and contribute significantly to the development of the social skills of the participants, to the cultivation of a spirit of cooperation and to the active participation of the trainees (Armakolas, Panagiotakopoulos, & Karatrantou, 2018; Panagiotakopoulos et al., 2013).

THEORETICAL FRAMEWORK

Experiential learning

Jarvis (1999) illuminates a new aspect of experiential learning. It is about the possible way of meeting the adult through learning. The meeting point is itself the movement of the subject within every social relationship and course. Through his experiences the adult will come across a way of reference in terms of learning. The action and the active impulse of the adult in each event will define the scope of this meeting since each interaction fertilizes the shape of the social reality and promotes contemplative processes. Understanding the empirical reference of the subject to every social action and movement will give the semantic framework of his interpretive point of view and will redefine the possible alterations of his previous engagement in the light of a new interpretive definition of his social quests.

Previous student experiences will be transformed in the light of personal identification into a new context determined by his social action (Jarvis, 1999). The active course of the adult in the social field creates empirical data that involve new learning interpretive approaches, unknown until the moment they will be discovered by him through their empirical engagement. The question which arises is whether the discussion of the new data will lead the adult to knowledge or they will be left simply in the process of its engagement only. It is, after all, an issue that will sometimes turn into knowledge and sometimes into a procedural navigation of reality.

A great research stream from the field of critical pedagogy connects experiential learning with the empowerment of learners. It is argued that if they gain confidence in their ability to learn, they gain more control over their lives and thus can act in the direction of social change (Mezirow, 2007).

Effective self-directed learning in distance learning

Effective learning consists in the presence of the trainer as a facilitator of knowledge production, as equal to the trainees and not as an authority (Armakolas, Panagiotakopoulos, & Magkaki, 2018; Fragoulis & Anagnou, 2014). In addition, it takes place when characteristics such as extroversion, acceptance and receptivity of new experiences on the part of the trainer,

contribute more to building and effectiveness of a team. Intimacy, emotional stability and willingness to help seem to contribute to collective action. Communication between members and cooperation have the same positive effect (Kounenou, Roussos, & Yotsidi, 2014; Kounenou et al., 2015; Valkanos, Papavassiliou-Alexiou, & Fragoulis, 2009).

Learning can be significantly derived from the actions of learners themselves, and it comes from their direct contact with learning resources. Participants gradually proceed to the understanding of the learning object, based on their strengths. The role of the trainer is to create the proper conditions and give instructions. In most cases, educators recognize the value of self-regulated learning both in the short term (assisting students with their current studies) and in the long term (assisting students with lifelong learning goals) (Armakolas, Frakoulis, & Mitroulia, 2021; Mikroyannidis et al., 2014). It is associated with effectiveness and academic achievement in distance learning and in addition, its support is considered much more important and necessary in this environment due to the high degree of learning autonomy of students (Alqurashi, 2017; Nikolaki & Koutsoumba, 2013).

Resistance to change through collaborative techniques

Argyris (1994), (as cited in Kokkos et al., 2019) has managed to combine research and practice in his work with learning groups that typically involve up to 15 people learning through feedback interaction, problem-solving techniques and simulations. Through observation it was revealed that people often developed a defensive attitude rather than an expected more responsible one that would explain the consequences of their actions. The results of such repetitive behavior for Argyris signaled a resistance to learning and an obvious resistance to change (Kokkos et al., 2019, p. 180). To enhance the learning process and challenge his students' prior assumptions and beliefs, he used various practical examples and group discussion exercises that he usually offered to participants.

According to Kohan et al. (2017) an additional obstacle for students in distance learning programs is the ambiguity of the role of trainers-counselors. In e-learning it is more difficult to formulate learning contracts, the students' communications needs.

Self-directed learning is a collective rather than an individual process. Transformation can take place in a dialogue in which the individual participates with complete freedom, tests his views and interests along with the views and interests of others, accordingly leads to transformation, while changing their learning goals. Participating as a self-directed teacher in a dialogue process requires full knowledge of alternative forms as well as the freedom that arises from restriction and coercion (Kalogridi, 2011).

The research questions

How is the management of problems in distance learning environment related to the specialty and educational experience of the participants?
How do the alternative thoughts of the trainees relate to previous experience?
How does acceptance of the new role relate to specialization and previous experience?

RESEARCH METHODS

At the beginning of March 2020, due to the spread of the COVID-19 virus and for reasons of protection of trainers, students and public health, it was decided, among other things, to suspend the operation of universities and within a short time the "transition" to distance education took place. The suspension of the operation of educational institutions in Greece lasted a long time. Most of the higher education institutions had to adapt to distance, synchronous and asynchronous education. During the academic year 2020-2021, it was decided by the

Administrative Committee of ASPETE that the training programs of the School be implemented by utilizing distance education (ASPETE, 2020; Stampoltzi, Giannoulas, & Kalamatianos, 2020). The first week of distance learning courses according to the decision of the School was the 9th week of the spring semester. Our research covers this critical week from April 6 to 10 and was based on the Organizational Performance Model and Transformation Process proposed by Kokkos et al. (2019, p. 188).

A questionnaire consisting of four parts was written and used as a data collection tool. The questionnaire was created in Google Forms and sent to the participants via e-mail. The first part of questionnaire consisted of four (4) closed-ended questions concerning gender, age, specialty and work experience, or not, in education. The second part was followed by eight (8) questions, addressed to the students, about the trainers. These questions could be answered on a 5-point Likert scale (1 = Strongly disagree, 2 = Strongly disagree, 3 = Neither agree, nor Disagree, 4 = Agree, 5 = Strongly agree). An open-ended question was then asked for a general comment on how trainers supported the transition from live to distance learning.

The third part included eleven (11) questions related to the students. These questions could be answered on a 5-point Likert scale (1 = Not at all, 2 = Slightly, 3 = Moderately, 4 = Much, 5 = Extremely), as well as the people with whom you shared your concerns with regard to conducting distance learning courses, and is supplemented by a question about the previous experience of participating in distance education or training.

An additional closed-ended categorical question was asked about the individuals with whom the students shared their concerns about distance learning. The third part of the questionnaire was completed with a question that could be answered on the 5-point Likert scale as above and related to the degree of previous experience from participating in distance education or training.

Finally, the fourth part of the questionnaire, in an open-ended question, a general commentary on how students perceive the transition from live to distance learning, asking them to submit something that they would not share within e -class.

The rules of anonymity and confidentiality were followed for the completion of the questionnaire and time was given to those who voluntarily offered to answer it. In the context of checking the validity and reliability of the questionnaire according to the rules of educational research (Panagiotakopoulos & Sarris, 2015), it was evaluated by three experts in Didactics in education and then a pilot application was carried out with the help of five (5) students. The revisions made based on the observations of experts and students led to the final form of the questionnaire, the reliability of which was tested using Cronbach's α internal consistency factor.

The students' answers were then sampled, collected and coded. A series of descriptive and inductive statistical analysis followed. The statistical tests χ^2, t-test, analysis of variance and the Spearman correlation coefficient were used, at a significance level of $\alpha = 0.05$.

RESULTS

The study involved 25 men (19%) and 104 women (81%), students of the annual program of Didactic and Pedagogical Preparation of ASPETE. To be mentioned that the students are already graduates of various disciplines before enrolling to the program. The majority of participants belong to young ages (36% are 23-30 years old and 40% are 31-40 years old) followed by a smaller percentage of middle-aged people: 18%, 42-50 years old and 5%, 51-60 years old. In terms of the specialties of the participants, most of them come from the Health sector (27%), then from the field of Economics and Business 25%, followed by relatively smaller percentages of specialties in the fields of Humanities 14%, Informatics and Sciences (from 13% in each branch), while in a significantly smaller percentage the participants have the

specialty of Geotechnics 8%. The majority of participants 71% have no previous work experience in education.

In the second part of the questionnaire, the frequencies of answers to questions about trainers were detected and were presented the following Figure 1.

FIGURE 1

Degree of agreement on questions related to trainers
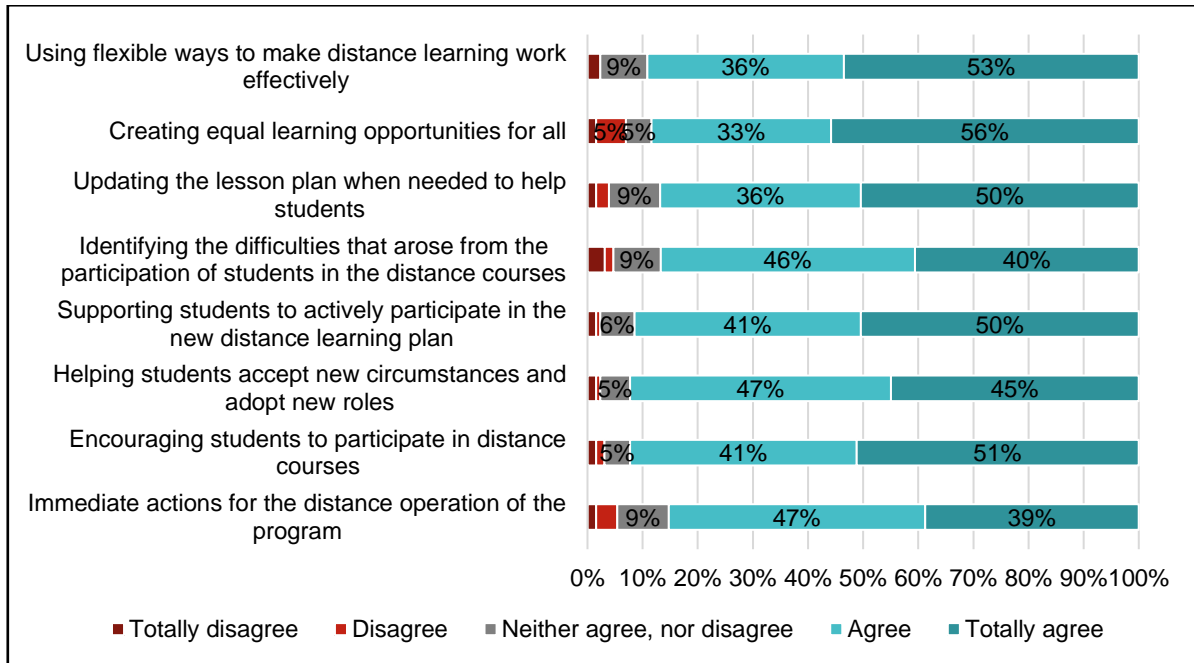
We observe a pattern of positive answers for the vast majority of respondents who agree (36%-47%) and totally agree (39%-56%) with the existence of certain situations related to the trainer.

TABLE 1

*Hypothesis check for difference in answers about teachers*

Test Statistics							
	Degree of agreement regarding the immediate actions for the distance operation of the program	Degree of agreement regarding the encouragement for the participation of the students in the distance courses	Degree of agreement on helping students accept new circumstances and take on new roles	Degree of agreement in terms of supporting students to actively participate in the new distance learning plan	Degree of agreement regarding the identification of the difficulties that arose from the participation of the students in the distance courses	Degree of agreement regarding the adjustment of the course plan, when necessary, in order to help the students	Degree of agreement on the creation of equal learning opportunities for all	Degree of agreement on the use of flexible ways for distance learning to work effectively
Chi-Square	114,140[a]	150,419[a]	147,705[a]	146,310[a]	116,543[a]	126,465[a]	143,752[a]	88,271[b]
df	4	4	4	4	4	4	4	3
Asymp. Sig.	,000	,000	,000	,000	,000	,000	,000	,000
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 25,8.								
b. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 32,3.								

We can see in Table 1 below that all the variables under investigation are statistically significant $[x^2 (4) = 0, p < 0.05]$, so we conclude that there are statistically significant differences in the

answers of the respondents who explain the aforementioned significant agreement, instead of disagreement, with the variables in the second part of the questionnaire.

In the third part of the questionnaire, the frequencies of answers to questions about students were detected as presented in the following Figure 2.

FIGURE 2

Degree of existence of various situations related to students
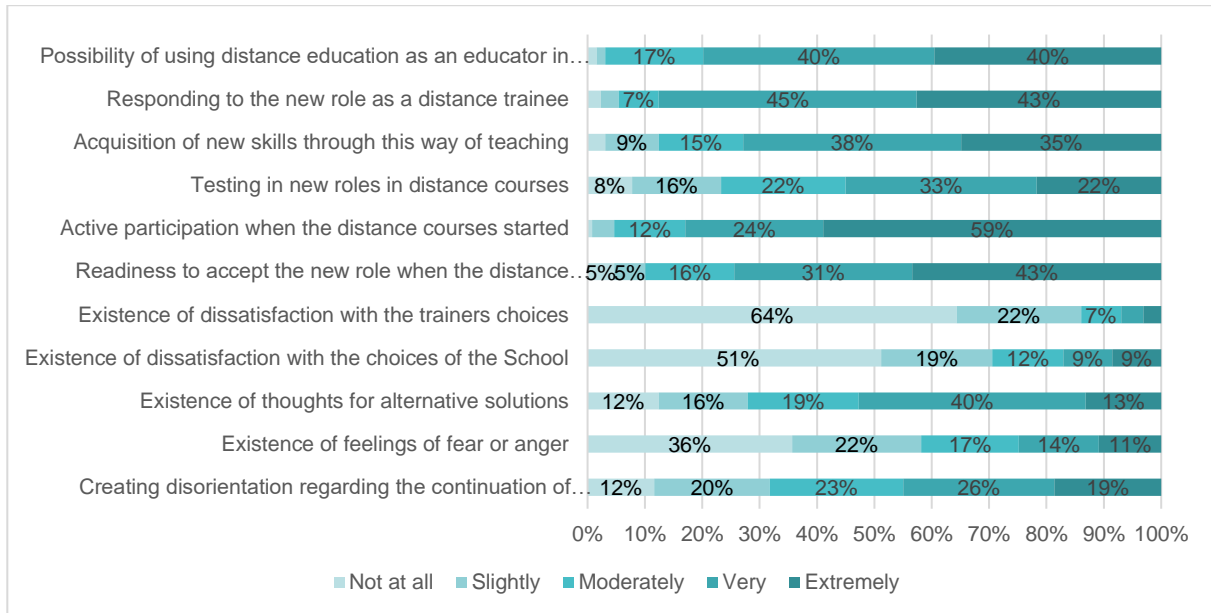
We observe that, except for the question about creating disorientation about the continuation of studies before the decision for distance learning, where the answers are relatively divided into the different possibilities, in all other answers there seems to be a prevailing trend either "positive" (answers: very and extremely) as for the situations related to the students' participation and responsiveness to the new roles and skills imposed by the distance education, or "negative" (answers: not at all and slightly) in terms of situations such as the existence of feelings of fear or anger, the existence of dissatisfaction with the choices either of the trainers or of the School.

As above test x^2 was used to detect statistically significant differences. Results appear in table 2:

TABLE 2

Checking the difference hypothesis in answers about the students

	Degree of creation of disorientation regarding the continuation of studies before the decision for distance education	Degree of existence of feelings of fear or anger	Degree of existence of thoughts for alternative solutions	Degree of dissatisfaction with the choices of the school	Degree of dissatisfaction with trainers' choices
	Test Statistics				
Chi-Square	7,938[a]	24,527[a]	32,667[a]	83,364[a]	173,132[a]
df	4	4	4	4	4
Asymp. Sig.	,094	,000	,000	,000	,000
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 25,8.					

Test Statistics

	Degree of readiness to accept the new role when the distance courses were announced	Degree of active participation when the distance courses started	Degree of testing in new roles in distance courses	Degree of acquiring new skills through this way of teaching	Degree of response to the new role as a distance trainee	Degree of possibility of utilizing distance education as an educator in the future
Chi-Square	73,364[a]	143,054[a]	22,822[a]	62,744[a]	122,744[a]	95,690[a]
df	4	4	4	4	4	4
Asymp. Sig.	,000	,000	,000	,000	,000	,000
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 25,8.						

The participants were also asked to state with whom they discussed their concerns about distance education and designated as the recipients of their concerns, educators (44 people, 34%), friends (10 people, 8%) and fellow students (2 people, 2%), as well as all of the above at the same time (67 people, 52%). Finally, 43% of the participants had no experience in distance education (56 people, 43%), while fewer stated slightly (16%), moderately (12%), much (17%) and extreme (12%) experience.

In order to investigate the research questions, the degree of correlation of the various problems that arise in the distance learning environment with the specialty and educational experience of the participants was initially examined. Statistical analysis of variance was used in more detail in order to study various parameters that make the distance learning environment problematic or not, according to the first research question.

Regarding the question about the trainers to the extent that they encouraged the students to participate in the distance learning courses, the analysis of variance (ANOVA) did not yield statistically significant differences between the answers of the participants neither based on their specialty [$F_{(1,123)} = 1.087$, $p = 0.371 > 0.05$], nor based on their educational experience [$F_{(1,127)} = 0.336$, $p = 0.563 > 0.05$].

Similarly, the analysis of variance (ANOVA) in terms of the degree of identification of difficulties arising from student participation in distance learning did not yield statistically significant differences between participants' responses neither by their specialty [$F_{(5,123)} = 1.399$, $p = 0.299 > 0.05$], nor based on their educational experience [$F_{(1,127)} = 0.168$, $p = 0.683 > 0.05$].

Another question about the difficulties of the distance learning environment that was studied in terms of its statistical significance concerned the degree of existence of feelings of fear and anger. In this case, too, there are no statistically significant differences from the variance test (ANOVA) carried out between the participants' answers, neither on the basis of their specialty [$F_{(5.123)} = 1.089$, $p = 0.370 > 0,05$], nor on the basis of their educational experience [$F_{(1,127)} = 0.604$, $p = 0.439 > 0.05$].

Another expression of the difficulties that arose concerns the questions as to the degree of dissatisfaction with the choices of both the school and the teachers. The relevant analysis of variance (ANOVA) did not show statistically significant differences in the specialty [$F_{(5.123)} = 1.805$, $p = 0.117 > 0.05$], or educational experience [$F_{(1,127)} = 0.930$, $p = 0.337 > 0.05$], however, showed a statistically significant difference in the responses concerning the dissatisfaction with the teachers' choices depending on the specialty of the participants [$F_{(5,123)} = 3.360$, $p = 0.007 < 0.05$], but not depending on the educational experience [$F_{(1,127)} = 2.418$, $p = 0.122 > 0.05$].

The second research question concerning the extent to which there were thoughts of alternatives to previous experience in distance education was tested using correlation analysis and the Spearman coefficient. As shown in Table 5, there is a weak positive correlation between the previous experience and the degree of existence of thoughts for alternatives, which is statistically significant ($r_s = 0.247$, $n = 129$, $p = 0.005 < 0.05$).

TABLE 3
Correlations

			Degree of existence of thoughts for alternative solutions	Previous experience from participating in distance education or training
Spearman's rho	Degree of existence of thoughts for alternative solutions	Correlation Coefficient	1,000	,247**
		Sig. (2-tailed)	.	,005
		N	129	129
	Previous experience from participating in distance education or training	Correlation Coefficient	,247**	1,000
		Sig. (2-tailed)	,005	.
		N	129	129
**. Correlation is significant at the 0.01 level (2-tailed).				

The third research question dealt with the relationship between the degree of acceptance of the new role and the start of distance courses in relation to previous experience. Correlation analysis and control with Spearman coefficient were performed. In Table 4 we observe a statistically significant relationship ($r_s = 0.355$, n = 129, p = 0 <0.05) and the existence of a moderately positive correlation between previous experience and the degree of readiness to accept the new role.

TABLE 4
Correlations

			Previous experience from participating in distance education or training	Degree of readiness to accept the new role when the distance courses were announced
Spearman's rho	Previous experience from participating in distance education or training	Correlation Coefficient	1,000	,355**
		Sig. (2-tailed)	.	,000
		N	129	129
	Degree of readiness to accept the new role when the distance courses were announced	Correlation Coefficient	,355**	1,000
		Sig. (2-tailed)	,000	.
		N	129	129
**. Correlation is significant at the 0.01 level (2-tailed).				

DISCUSSION AND CONCLUSIONS

Regarding the first research question that examined the degree of correlation between the management of various problems that arise in a distance learning environment, it appeared that there is no correlation with the specialty or with the educational experience. The research showed that trainers encouraged students to manage the transition from direct to distance. Perhaps this is why no correlation was observed.

Regarding the second research question that explores the correlation between the degree of existence of thoughts about alternatives with previous experience, the analysis showed the existence of a weak positive correlation, the experience with thoughts about alternatives.

Regarding the third research question concerning the degree of acceptance of the new role in distance education in relation to previous experience, the analysis showed that there was a direct relationship between the previous experience and the degree of readiness to accept a new role. This is important because preparedness is often intertwined with trainers work to meet the role of distance educator.

We'd also like to comment on the combination of collaborative techniques to the distance learning lesson that favors self-regulated learning. It appears from this experience that it is a successful combination of will and skills and an integrated way of managing the learning

process that enables apprentices in distance education to be able to plan, execute, control, evaluate and review their actions. This increases the participants' ability to "learn how to learn" and enhances their confidence and responsibility in the learning process. The resistance to change is mitigated and the change in performance and transformation is amplified.

Key conditions for the success of the project are the strong commitment of the participants in terms of achieving the learning goal and confidence in their strengths.

Naturally, due to the sampling, the sample, but also the evaluation process, which was limited in scale and only for some specific data, the results of the present study can only be indicative.

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APPENDIX

The questionnaire
1. Degree of agreement regarding the adjustment of the teaching plan, when necessary, in order to help the students
2. Degree of agreement in terms of supporting students to actively participate in the new distance learning plan
3. Degree of agreement regarding the encouragement for the participation of the students in the distance courses
4. Degree of agreement on the creation of equal learning opportunities for all
5. Degree of agreement on helping students accept new circumstances and take on new roles
6. Degree of agreement on the use of flexible ways to make distance learning work effectively
7. Degree of agreement regarding the identification of the difficulties that arose from the participation of the students in the distance courses
8. Degree of agreement regarding the immediate actions for the distance education operation of the program
9. Degree of feelings of fear or anger
10. Degree of creation of disorientation regarding the continuation of studies before the decision for distance education
11. Degree of dissatisfaction with the decisions of the School
12. Degree of existence of thoughts for alternative solutions
13. Degree of dissatisfaction with the trainers' choices
14. Degree of response to the new role as a distance trainee
15. Degree of acquisition of new skills through this way of teaching
16. Degree of active participation when the distance courses started
17. Degree of possibility of using the distance education as an educator in the future
18. Degree of readiness to accept the new role when the distance courses were announced
19. Degree of testing in new roles in the distance courses
20. With whom the students shared their concerns about distance learning