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TECHNOLOGICAL AND PLURICULTURAL TEACHER TRAINING FOR A QUALITY EDUCATIONAL INCLUSION

FORMAÇÃO TECNOLÓGICA E PLURICULTURAL DE PROFESSORES PARA UMA INCLUSÃO EDUCACIONAL DE QUALIDADE

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ABSTRACT: The present work aims to establish the links that may exist between technological training and multicultural training of teachers with educational inclusion. The research design is non-experimental, explanatory and correlational, with a quantitative method. A reliable and content-validated Likert-type scale has been used. The sample used is 594 subjects, formed by university students in their last year of Primary Education and graduate students (Master of Teacher Training) (University of Jaen, Spain). An exploratory factorial analysis was carried out which validated the scale's construct and which allows us to conclude that greater value is given to foreign training than to national training, and furthermore, little value is given to teacher training as a key to an educational system in accordance with the 21st century. Spearman's Rho was applied, where the significant correlation between the training provided by non-university institutions and pluricultural training can be observed. Structural equation modeling (SEM) concludes by demonstrating the strong relationship between inclusive and pluricultural teacher education, and between the latter and technology, with a weak relationship between technology and general teacher education.

KEYWORDS: Technologies. Pluriculturalism. Educational inclusion. Teacher training. Education.

RESUMO: Este trabalho tem como objetivo estabelecer os vínculos que podem existir entre a formação tecnológica e pluricultural de professores com a inclusão educacional. O desenho da pesquisa é não-experimental, explicativo e correlacional, com um método quantitativo. Foi utilizada uma escala tipo Likert, que foi validada em termos de conteúdo e é confiável. A amostra utilizada é de 594 sujeitos, formada por estudantes universitários em seu último ano do Ensino Fundamental e alunos de pós-graduação (Mestrado em Formação de Professores) (Universidade de Jaén, Espanha). Para os resultados realizamos uma análise fatorial exploratório que validou a construção da escala e que nos permite concluir o maior valor dado à formação estrangeira do que à formação nacional e, além disso, pouco valor que é dado à formação de professores como chave para um sistema educacional de acordo com o século XXI. Aplicamos o Rho de Spearman, onde se observa a correlação significativa entre a formação fornecido por instituições não universitárias e a formação pluricultural. A modelagem de equação estrutural (SEM) nos permite concluir demonstrando a forte relação entre a formação inclusiva e pluricultural de professores, e entre tecnologia e formação de professores, com uma relação fraca entre a formação tecnológica e uma formação geral de professores.

PALAVRAS-CHAVE: Tecnologias. Pluriculturalismo. Inclusão educacional. Formação de

professores. Educação.

1 Introduction

Since before the last decade it has been clear that teacher training is necessary, (MONTAÑO, 2010), since a professional requires training, and in addition reality constantly imposes challenges and demands the search for training alternatives. This teacher training is not only a strategy for teaching, but also a matter of philosophies, pedagogical currents, institutional structures, and types of students, among others. Other authors mention the importance of teacher training based on theoretical discussion. Therefore, it is necessary to build spaces that reinforce pedagogical skills. As Infante (2013) points out, these spaces should allow for pedagogical reflection so that teachers can build on the diversity and inclusion of students, rather than developing pragmatic techniques and tools. According to this position, teacher training has three components: pedagogical practice, pedagogical knowledge and culture.

For Bernate *et al.* (2020) the current educational context shows that universities are being impacted by the characteristics of their new students, who arrive with higher levels of schooling and technological training in mass media, posing a serious challenge to institutions. This trend has begun since the late 1980s, when universities have undergone a series of transformations in the system and in the political life of educational quality and national and international testing standards of educational excellence, the emergence of new laws and regulations that positively and negatively influence the teaching-learning processes. Teacher training today is expressed concretely as the learning process linked to the exercise of teaching that takes different forms in the different stages of the life of the teacher. It focuses on strengthening the professional judgment of teachers by broadening their criteria (knowledge and skills) and is defined as "professional development" of teachers.

On the other hand, educational technology has evolved rapidly as a field of study, research and professional practice. In recent years there has been an exponential growth in publications, congresses and conferences, associations, foundations and committees, institutional projects for infrastructure equipment and continuing teacher training, international reports and the market for technological devices and "solutions" to educational problems. This acceleration reflects the very evolution of society: technology is today one of the most outstanding forces of change. Consequently, educational technology seeks to adapt to the needs of the moment and suffers the consequences of the forces of change. In this type of dynamics, moments of stability to elaborate and consolidate ideas are scarce, although they may be more necessary than ever (BIESTA; FILIPPAKOU; WAINWRIGHT; ALDRIDGE, 2019).

On another note, according to Alcaraz and Arnaiz (2020), inclusive education is a process that seeks to eliminate the barriers that hinder the presence, participation, and success of the entire student body. On the other hand, the concept of inclusion is related to respect for diversity, equal opportunities in terms of access and participation of all people as unique and important beings in society. The excluded population is that in which the above aspects are not fulfilled; in which their rights as a person are not respected and they do not have access to most of the services and spaces that the rest of the population has, which promotes social inequality. This group may include persons belonging to

indigenous groups, persons who are victims of violence, persons who are constantly displaced and persons with disabilities, among others. Therefore, in order to close the famous digital divide, it is necessary to develop conditions that allow knowledge and access to technologies, since these offer the possibility of creating knowledge and developing actions that make it possible for individuals to participate. With regard to subjects with disabilities, it is possible to: a) work and promote independence and autonomy in access to certain services and, b) neutralize limitations and improve their participation and social interaction. Likewise, in the case of the most disadvantaged environments, it is proposed to develop state programs that allow access to technologies and also to implement social and labor inclusion actions that optimize everything related to the quality of life of the subjects and their participation as citizens. Hence the relationship between technologies and social inclusion, since they generate new environments, tools and learning situations that promote participation and social relations.

We can relate technologies and educational inclusion, also, following the expression of Murillo, Ramos, García y Sotelo (2020), who in their research highlight the need for initial and continuous teacher training, especially with issues related to inclusive education and attention to diversity. In this sense, it is necessary to have trained teachers, focused on the identification of needs, in order to later adapt the teaching and learning processes of students.

On the other hand, the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2017, p. 12) recognizes that, thanks to culture, human beings have the capacity to reflect on themselves, since through culture they are able to differentiate values and seek new meanings that are not always seen in the material realities of peoples. The pedagogical practice of teachers, as advocated by Ladson (2014, p. 471), has been modified to comply with a pluricultural education that not only considers difference, but also values plurality so that knowledge is meaningful and contextualized for learners, which includes breaking the paradigm that literacy in another language would not be an adequate condition for learning English.

Despite the many advances made from a multicultural perspective in teacher training, teachers point out that changes in the school environment are always gradual and their impact varies according to each person's motivations and context. Respect for the mother tongue and the understanding that global citizenship is not the invisibility of cultural identities were factors that encouraged the development of inclusive practices in the pluricultural conception (BARBOSA, 2013). However, these practices, although recognized for improving student learning, do not lead to significant changes in the methodologies of other teachers, which demonstrates greater individual work and a low acceptance and adherence of the collective.

Thus, Jordan, Maureen and Hartling (2004, p. 136) and Besalú (2002, p. 42) examine the training needs of teachers in this area of multiculturalism and have proposed models for initial and continuing training. They largely share their observations and reflections and aim to reflect in a very simple way the possibilities for initial training in multiculturalism that students have, as well as personal teaching experience in this field.

Current theories on learning assert that teachers must be able to teach in various learning contexts (AINSCOW, 2001; BEYER, 2001; RIEHL, 2000). However, much of the higher education curriculum includes specific tools at the level of methodologies and didactics that focus on the learning of the average schoolchild (INFANTE; MATUS, 2009, p. 292). As a result, the school is shown to be a homogeneous place in terms of subjects

and actions, moving away from the reality of the school system in a representative way. The teacher constructs his or her identity based on competencies that are centered on a supposed normality that is far removed from the real problems of the school that he or she will not know how to solve (TENORIO, 2007, p. 80). Similarly, the skills that define the teacher in the classroom are limited in their curriculum, although they are not entirely those that the student in training has acquired through his or her experiences in the classroom. This approach can be seen not only in training programmes for general basic education teachers, but also in the training of specialists working in education, although specialists are given a particular set of tools in their training to support students with disabilities. At the same time, the practice is carried out in the educational centre that the specialist must move from the special school to the regular school where he must relate to the rest of the teachers and students, a situation for which he is not prepared (INFANTE et al., 2008, p. 288).

In all this anchoring, the teaching staff is a key element. It is clear that, as teachers, we face great challenges in incorporating technology into educational practice, and we must have acceptable levels of training in technology and in teaching strategies and methodologies that favour its integration (CABERO; FERNÁNDEZ; CÓRDOBA, 2016, p. 163). Under this perspective, Martínez (2020, p. 15) states that teachers must have the ability to create dynamic and innovative learning environments that promote the active role of students. It is a matter of seeing reality from another perspective, going outside their comfort zone, questioning themselves, not only to make visible their limitations, but also their potential. As teachers, we cannot remain on the sidelines of the European guidelines on digital competences, inclusion and equity in education (REDECKER; PUNIE, 2017, p. 124; UNESCO, 2017, p. 16).

2 Method

This research starts from the following general objective: to analyze the relationship between technological and pluricultural teacher training in interrelation with educational inclusion. To answer this question, we start from a non-experimental research design that is descriptive, explanatory and correlational, with a quantitative methodology, and we take an interpretative paradigm as a reference. In order to carry out the research, we chose to use a Likert scale as a research instrument.

We considered the population constituted by the fourth level university students of the Primary Education degree of an Andalusian university. After several absences, the participating subjects were 298. Similarly, we will take the students of the University Master's Degree in Compulsory Secondary Education, Baccalaureate, Vocational Training and Language Teaching, this population is constituted by 300 subjects, the Likert scale, after several absences and dropouts, was finally answered by 296 subjects. The total number of participating subjects was 594.

The design of the Likert scale has been made with an operationalization table, having finally 20 items, on the other hand, the validation has been made, in a first moment of content, with an expert judgment and pilot test, in second place, a factorial analysis was made to validate the scale in its construction using as software SPSS v25. The reliability analysis was carried out by calculating Cronbach's alpha, giving a score of .896, which is considered good (GEORGE; MALLERY, 2003, p. 365). Lisrel 8.80 was used for the

structural modeling. The dimensions that we establish in this study, extracted from the theoretical framework and the construction of the Likert scale are A.-Teacher training, B.-Inclusive teacher training, C.-Pluricultural teacher training and D.-Technological teacher training.

3 Results

With respect to validity to the Likert scale, firstly, a content validity was carried out by fifteen specialist doctors (MALLA; ZABALA, 1978, p. 24) authorized to carry out this evaluation and belonging to different universities. The competence coefficient of these specialists was calculated as $k=0.89$, which shows a high level of competence (MENGUAL, 2011, p. 85). After analyzing the validation questionnaires, some questions were readjusted, without affecting the substance of the question. On the other hand, a pilot test was carried out on a subgroup of the sample to review comprehension difficulties, identify questions that generated doubt, etc., using the corresponding checklist (IRAOSI, 2006, p. 89). The results of the pilot test were satisfactory and the instrument was considered validated in its content.

Construct validity (Exploratory Factor Analysis).

- Correlation matrix study: to check the correlation matrix we have used the Kaiser Meyer Olkin measure of sampling adequacy (KMO coefficient), in our case the value is 0.806, following Kaiser (1974, p. 35) the value is good, Bartlett's sphericity test has a significance of .000, and the value of the determinant is $7.799E^{-7}$, so we continue with the analysis.
- Extraction of the factors: the communalities graph shows that the factors have a value greater than .509 so it is not necessary to eliminate any item from the factor analysis. The best represented items are: A4 (.789). -The teacher training offered by foreign institutions is of higher quality than national training. D18 (.775) - Technological teacher training offered by non-university institutions is sufficient for my educational practice. The worst represented item is: A5 (.509) -Teacher training is the key to an educational system in line with the 21st century.
- Factor rotation: in our case these are the first 4 factors (Table 1), which explain 68.105% of the accumulated variance.

Table 1: Total variance explained.

| Total Variance Explained | | | | | | |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 7,345 | 36,726 | 36,726 | 7,345 | 36,726 | 36,726 |
| 2 | 2,610 | 13,048 | 49,773 | 2,610 | 13,048 | 49,773 |

| | | | | | | |
|----|-------|--------|---------|-------|--------|--------|
| 3 | 2,433 | 12,166 | 61,939 | 2,433 | 12,166 | 61,939 |
| 4 | 1,233 | 6,166 | 68,105 | 1,233 | 6,166 | 68,105 |
| 5 | 0,900 | 4,498 | 72,603 | | | |
| 6 | 0,867 | 4,335 | 76,938 | | | |
| 7 | 0,713 | 3,567 | 80,505 | | | |
| 8 | 0,626 | 3,131 | 83,637 | | | |
| 9 | 0,549 | 2,744 | 86,380 | | | |
| 10 | 0,407 | 2,033 | 88,414 | | | |
| 11 | 0,403 | 2,013 | 90,427 | | | |
| 12 | 0,357 | 1,786 | 92,213 | | | |
| 13 | 0,314 | 1,572 | 93,785 | | | |
| 14 | 0,279 | 1,394 | 95,180 | | | |
| 15 | 0,217 | 1,085 | 96,265 | | | |
| 16 | 0,202 | 1,009 | 97,273 | | | |
| 17 | 0,175 | 0,873 | 98,146 | | | |
| 18 | 0,154 | 0,768 | 98,914 | | | |
| 19 | 0,113 | 0,563 | 99,477 | | | |
| 20 | 0,105 | 0,523 | 100,000 | | | |

Extraction Method: Principal Component Analysis.

Source: own elaboration.

- Study of the factorial scores: Factor I: A.-Teacher training (A1, A2, A3, A4), B.-Inclusive teacher training (B6, B7, B8). C.-Pluricultural teacher training (C11, C12, C13, C14) and D.-Technological teacher training (D16, D17, D18). Factor II: A5, B9, B10, C15, D19, D20. We have calculated Cronbach's alpha of both factors: Factor 1: .917 (14 items), "excellent" evaluation. Factor 2: .742 (6 items), rating "unacceptable". We take the factor 1, which presents a higher reliability than the original scale itself (.896, 20 items), achieving a final scale of 14 items, reducing 6 items.

Correlation analysis (Spearman's Rho).

To perform the correlation, we subject the Likert scale to the Mann-Whitney U test for two independent samples, which results in rejecting the null hypothesis, so the data do not follow a normal distribution, and we must use Spearman's Rho for the correlation analysis.

Next, we will show the correlations between items that have significant value (0.05):

- Dimension A (Teacher training): A1>A2 (.626), A2>A7 (.607), A3>A2 (.605), A4>B9 (.638), A5>C15 (.410). The highest correlation is between: A4>B9 (.638). A4.-Teacher training offered by foreign institutions is of higher quality than national training. B9.-Inclusive teacher training offered by foreign institutions is of higher quality than national).

- Dimension B (Inclusive teacher training): B6>A2 (.729), B9>A2 (.616), B10> E27 (.556). The highest correlation is between: B6>B7 (.622), B7>C12 (.725), B8>C13 (.770), B9>C14 (.581), B10>D20 (.518) The highest correlation is between: B8>C13 (.770). B8.-Inclusive teacher education offered by non-university institutions is sufficient for my educational practice. C13.-Multicultural teacher education offered by non-university institutions is sufficient for my educational practice).
- Dimension C (Pluricultural teacher training): C11>C12 (.665), C12>C13 (.720), C13>C12 (.720), C14>B9 (.581) C15>B10 (.472). The highest correlation is between: C12< > C13 (.720). D17.-The technological teacher training offered by the university is sufficient for my educational practice. C12.-The multicultural teacher education offered by the university is sufficient for my educational practice. C13.-Multicultural teacher education provided by non-university institutions is sufficient for my educational practice).
- Dimension D (Technological Teacher Training): D16>D17 (.598), D17>C13 (.644), D18>D17 (.606), D19>A4 (.572), D20>C15 (.536). The highest correlation is between: D17>C13 (.644). D17.-The technological teacher training offered by the university is sufficient for my educational practice. C13.-Multicultural teacher education offered by non-university institutions is sufficient for my educational practice).

The highest correlation is between B8>C13 (.770). B8.-Inclusive teacher training offered by non-university institutions is sufficient for my educational practice. C13.-Multicultural teacher education offered by non-university institutions is sufficient for my educational practice).

Hypothesis Contrast (ANOVA).

The analysis of variance (ANOVA) tests the hypothesis that the means of the four samples are equal. The null hypothesis states that all means are equal, while the alternative states that at least one is different (Fisher, 1949, p. 165). To perform the ANOVA test we need a grouping variable (Factor Group) and the two independent samples. First, we calculated Levene's statistic to contrast the hypothesis of population variance, the result does not allow us to accept the null hypothesis.

We proceed to the calculation of the Anova of a factor, as can be seen in the following Table 2.

Table 2: One-factor Anova.

| ANOVA | | | | | | |
|--|----------------|----------------|-----|-------------|--------|-------|
| | | Sum of Squares | df | Mean Square | F | Sig. |
| A1.-Current teacher training satisfies my training concerns. | Between Groups | 2,520 | 1 | 2,520 | 2,470 | 0,117 |
| | Within Groups | 603,920 | 592 | 1,020 | | |
| | Total | 606,439 | 593 | | | |
| A2.-University teacher | Between Groups | 19,924 | 1 | 19,924 | 18,038 | 0,000 |

| | | | | | | |
|--|----------------|---------|-----|-------|-------|-------|
| training is sufficient for my educational practice. | | | | | | |
| | Within Groups | 653,894 | 592 | 1,105 | | |
| | Total | 673,818 | 593 | | | |
| A3.-The teacher training offered by non-university institutions is sufficient for my educational practice. | Between Groups | 0,900 | 1 | 0,900 | 0,883 | 0,348 |
| | Within Groups | 603,538 | 592 | 1,019 | | |
| | Total | 604,438 | 593 | | | |
| A4.-The teacher training offered by foreign institutions is of higher quality than the national one. | Between Groups | 0,052 | 1 | 0,052 | 0,051 | 0,821 |
| | Within Groups | 606,365 | 592 | 1,024 | | |
| | Total | 606,418 | 593 | | | |
| A5.-Teacher training is the key to an educational system in line with the 21st century. | Between Groups | 0,860 | 1 | 0,860 | 0,627 | 0,429 |
| | Within Groups | 811,800 | 592 | 1,371 | | |
| | Total | 812,660 | 593 | | | |
| B6.-The current inclusive teacher training satisfies my training concerns. | Between Groups | 5,306 | 1 | 5,306 | 5,152 | 0,024 |
| | Within Groups | 609,724 | 592 | 1,030 | | |
| | Total | 615,030 | 593 | | | |
| B7.-The inclusive teacher training offered by the university is sufficient for my | Between Groups | 1,459 | 1 | 1,459 | 1,494 | 0,222 |

| | | | | | | |
|--|----------------|---------|-----|--------|--------|-------|
| educational practice. | | | | | | |
| | Within Groups | 578,150 | 592 | 0,977 | | |
| | Total | 579,609 | 593 | | | |
| B8.-Inclusive teacher training offered by non-university institutions is sufficient for my educational practice. | Between Groups | 5,332 | 1 | 5,332 | 6,265 | 0,013 |
| | Within Groups | 503,848 | 592 | 0,851 | | |
| | Total | 509,180 | 593 | | | |
| B9.-Inclusive teacher training offered by foreign institutions is of higher quality than national training. | Between Groups | 2,405 | 1 | 2,405 | 3,330 | 0,069 |
| | Within Groups | 427,534 | 592 | 0,722 | | |
| | Total | 429,939 | 593 | | | |
| B10.-Inclusive teacher training is the key to an educational system for the 21st century. | Between Groups | 8,749 | 1 | 8,749 | 7,505 | 0,006 |
| | Within Groups | 690,113 | 592 | 1,166 | | |
| | Total | 698,862 | 593 | | | |
| C11.-Current multicultural teacher training satisfies my training concerns. | Between Groups | 24,672 | 1 | 24,672 | 28,536 | 0,000 |
| | Within Groups | 511,842 | 592 | 0,865 | | |
| | Total | 536,513 | 593 | | | |
| C12.-The multicultural teacher training offered by the university is sufficient for my educational | Between Groups | 30,963 | 1 | 30,963 | 26,217 | 0,000 |
| | | | | | | |

| | | | | | | |
|---|----------------|---------|-----|--------|--------|-------|
| practice. | Within Groups | 699,158 | 592 | 1,181 | | |
| | Total | 730,121 | 593 | | | |
| C13.-The multicultural teacher training offered by non-university institutions is sufficient for my educational practice. | Between Groups | 12,257 | 1 | 12,257 | 13,528 | 0,000 |
| | Within Groups | 536,403 | 592 | 0,906 | | |
| | Total | 548,660 | 593 | | | |
| C14.-The multicultural teacher training offered by foreign institutions is of higher quality than the national training. | Between Groups | 14,528 | 1 | 14,528 | 16,141 | 0,000 |
| | Within Groups | 532,854 | 592 | 0,900 | | |
| | Total | 547,382 | 593 | | | |
| C15.- Multicultural teacher training is the key to an educational system for the 21st century. | Between Groups | 15,932 | 1 | 15,932 | 13,229 | 0,000 |
| | Within Groups | 712,971 | 592 | 1,204 | | |
| | Total | 728,902 | 593 | | | |
| D16.-Today's technological teacher training satisfies my training concerns. | Between Groups | 1,220 | 1 | 1,220 | 1,106 | 0,293 |
| | Within Groups | 652,728 | 592 | 1,103 | | |
| | Total | 653,948 | 593 | | | |
| D17.-The technological teacher training offered by the university is sufficient for my educational | Between Groups | 3,169 | 1 | 3,169 | 2,873 | 0,091 |

| | | | | | | |
|--|-------------------|---------|-----|--------|--------|-------|
| practice. | Within Groups | 653,067 | 592 | 1,103 | | |
| | Total | 656,236 | 593 | | | |
| D18- Technology education offered by non-university institutions is sufficient for my educational practice. | Between Groups | 11,744 | 1 | 11,744 | 13,260 | 0,000 |
| | Within Groups | 524,310 | 592 | 0,886 | | |
| | Total | 536,054 | 593 | | | |
| D19- Technology education offered by foreign institutions is of higher quality than the national education. | Between Groups | 1,995 | 1 | 1,995 | 3,172 | 0,075 |
| | Within Groups | 365,944 | 582 | 0,629 | | |
| | Total | 367,938 | 583 | | | |
| D20- Technology teacher training is the key to an educational system for the 21st century. | Between Groups | 21,406 | 1 | 21,406 | 20,942 | 0,000 |
| | Within Groups | 605,107 | 592 | 1,022 | | |
| | Total | 626,513 | 593 | | | |

Source: own elaboration.

The results show that we can establish significant differences in some of the items according to the degree of significance ($<.05$), being able to establish significant differences in the two samples: A2 (.000)($>E$), B8 (.013)($>E$), B10 (.006)($>4^\circ$), C11 (.000)($>E$), C12 (.000)($>E$), C13 (.000)($>E$), C14 (.000)($>E$), C15 (.000)($>E$), D18 (.000)($>E$) and D20 (.000)($>E$).

Confirmatory factorial analysis.

The SEM methodology consists of a series of phases according to Kaplan (2000, p. 216) and Kline (2005, p. 187) that we will specify in four.

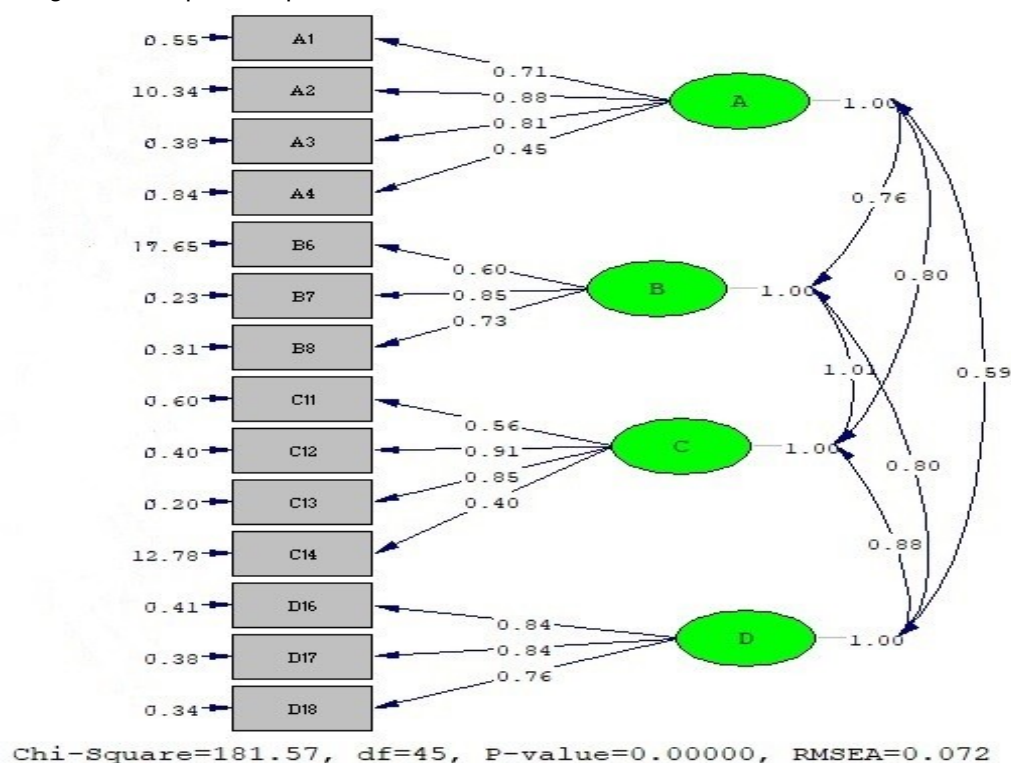
Phase I – Specification of the Measurement Model: The Conceptual Model of the Likert scale obtained from the exploratory factor analysis is composed of 20 observed variables that are grouped in five dimensions.

Phase II – Identification. Computational Implementation of the System of Structural

Equations. To determine if the model is identified we must calculate the degrees of freedom (gl), in our case the value is 45, so we can say that the model is over-identified.

Phase III – Parameter estimation the model estimation phase includes a graphic representation of the theoretical-conceptual structure of the instrument under analysis. This representation is the basis for the formulation of the reproduced matrix that will be compared with the derived matrix. For the Likert scale the graphic representation is shown in the Figure 1, in which the ovals represent the four latent variables (constructs) and the boxes the 14 observed variables (from the exploratory factor analysis), which together make up the dimensionality of the instrument.

Figure 1: Graphical representation of the natural measurement model of the Likert scale.



Source: own elaboration.

As for the regression coefficients between the latent and observed variables, the interpretation is as follows.

Dimension A (teacher training):

More influence of the latent variable on: A2 (.78).-University teacher training is sufficient for my educational practice. -Lesser influence of the latent variable on: A2 A4 (.45) Teacher training offered by foreign institutions is of higher quality than national training.

Dimension B (Inclusive teacher training): -More influence of the latent variable on: B7 (.85): -Inclusive teacher education provided by the university is sufficient for my educational practice. -Lesser influence of the latent variable on: B7 (.85) B6 (.60) -Current inclusive teacher education satisfies my training concerns.

Dimension C (Pluricultural teacher training): -More influence of the latent variable

on: C12 (.91): -Multicultural teacher education offered by the university is sufficient for my educational practice. -Lesser influence of the latent variable on: C12 (.91).-Multicultural teacher training offered by the university is sufficient for my educational practice: C14 (.40) -Multicultural teacher education offered by foreign institutions is of higher quality than national education.

Dimension D (Technological teacher training): -More influence of the latent variable on: D16 (.84) - Current technology teacher education satisfies my training concerns. D17 (0.84): The technology teacher training offered by the university is sufficient for my educational practice. -Less influence of the latent variable on: D18 (.76) Technology teacher education offered by non-university institutions is sufficient for my educational practice.

The relationship between the latent variables is given by: A-B--> (.76), A-C-->(.80), A-D-->(.59), B-C--> (1.01), B-D-->(.80), C-D-->(.88). The highest ratio is given by: B (Inclusive teacher training) - C (Pluricultural teacher training)-->(1.01); C (Pluricultural teacher training) - D (Technological teacher training)-->(.88). The lowest ratio is given by: A (Teacher training) - D (Technological teacher training)-->(.59)

Phase IV – Evaluation of the adjustment Application of indexes and criteria of goodness of fit. In this stage we use indices and criteria of goodness of fit to relate the validated evidence to the dimensional structure of the instrument being evaluated, in summary: X²/gl (4.03). IAA: GFI (.95), RMSEA (.072), NCP (136.57), SRMR (.038), RMS (.038), ECVI (.52). IAI: AGFI (.88), IFI (.99), NFI (.98), TLI/NNFI (.98), RFI (.97), CFI (.99). IP: PNFI (.49), PGFI (.41), AGFI (.88). As can be seen, the criteria for all goodness-of-fit indices are met, so the model is fully confirmed.

4 Discussion and conclusions

This research has been carried out on a sample of 1575 subjects (university students of the Primary Education Degree and Master's Degree in Teacher Training, in Jaen, Spain). A Likert scale (20 items) was used, constructed with an operationalization table, and sized according to the theoretical framework, in four dimensions (culturality, teaching practices. The validation of content was satisfactory and that corresponding to the construct was carried out through an exploratory factorial analysis (KMO (.806), Bartlett (.000), Determinant (7.799^{E-7}), obtaining an excellent reliable scale (.917) and reduced (14 items). From this analysis we highlight the importance that subjects give to the training offered by foreign institutions, as well as the fact that it is sufficient in the pluricultural field. On the other hand, teacher training is not considered as a key to an advanced educational system.

The use of two samples, gives us the opportunity to study the significance of the differences between the groups, in this way, the ANOVA carried out shows that the tendency is that the students who graduate give greater value to the items exposed, however, there is one in which the tendency is the opposite, specifically the B10, which tells us that inclusive teacher training is the key to an educational system in keeping with the 21st century, an issue more valued by final-year students than by those who have already graduated, we observe that contact with reality does not increase the belief in inclusion; precisely, more items are valued that express the importance of technological or pluricultural training.

To conclude, following the general objective, structural equation modeling (SEM) provides us with very outstanding conclusions, so that in relation to teacher training, what subjects value most is that it is sufficient for educational practice, not giving much value to being offered by national institutions. In the dimensions of inclusive, pluricultural and technological teacher training, the subjects give importance to the training offered by the university, which is considered sufficient for educational practice. However, this training does not satisfy personal concerns, and foreign training is considered to be of higher quality than national training. We conclude by demonstrating that inclusive and pluricultural teacher training must go together at all times, and always hand in hand with technology, is a strongly linked and inseparable triangle.

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