

## Comparative analysis of the curricular designs of teachers who are postgraduate students

### Análisis comparativo de los diseños curriculares de los docentes que estudian posgrado

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#### Abstract

This article tries to elucidate the relevant differences between two training groups in the disciplinary field of education. The sample was made up of postgraduate students, both from a university and from a normal training school. Given the above, significant information is retrieved from the way in which each institution treats the programmatic contents of their respective educational plans. This research has three axes: the curricular design of the educational figure, the development of emotional intelligence limited to empathy and the professional praxis of the respondents. The objective of this study is to analyze how institutions, regardless of belonging to the same disciplinary field, tend to form particular traits as the case may be. Within the results, differences are shown regarding sex, academic level and institution in which they carry out or carried out their postgraduate studies. The methodology used was under a quantitative process, with a t Student analysis, an instrument was developed for this purpose, applied through Microsoft Forms, with 84 variables measured with a decimal ratio scale.

**Curriculum design, Graduate students, Education**

#### Resumen

El presente artículo trata de dilucidar las diferencias relevantes de dos colectivos de formación en el campo disciplinar de educación. La muestra se conformó con estudiantes de posgrado, tanto de una universidad como de una escuela de formación normalista. Dado lo anterior, se rescata información significativa de la forma en que cada institución trata los contenidos programáticos de sus respectivos planes educativos. Esta investigación cuenta con tres ejes: el diseño curricular de la figura educativa, el desarrollo de la inteligencia emocional circunscrita a la empatía y la praxis profesional de los respondientes. El objetivo de este estudio es analizar cómo las instituciones independientemente de pertenecer al mismo campo disciplinar, tienden a la formación de rasgos particulares según sea el caso. Dentro de los resultados se muestran las diferencias que respectan al sexo, nivel académico e institución en la que realizan o realizaron sus estudios de posgrado. La metodología utilizada fue bajo un proceso cuantitativo, con un análisis t de Student, se elaboró un instrumento para este fin, aplicado a través de Forms de Microsoft, con 84 variables medidas con escala decimal de razón.

**Diseño curricular, Estudiantes de posgrado, Educación**

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## Introduction

This article reports on the underlying differences between two institutional groups that make up the sample, drawn from the Escuela Normal Superior del Estado de Coahuila (ENSE) and the Facultad de Ciencia, Educación y Humanidades (FCEyH) of the Universidad Autónoma de Coahuila. Postgraduate students were taken from both institutions; from the ENSE for the Master's Degree in Education with an emphasis on Compulsory Education and from the FCEyH for the Master's Degree and Doctorate in Educational Sciences.

The main analysis of this article is a comparative Student's t-test, from which it is possible to observe that despite the fact that the respondents belong to institutions that prepare educational figures, there are relevant differences between them given their particular characteristics.

## Conceptual framework

It is common to find definitions of curriculum that vary in terms of its characteristics or elements; the following is a general summary of the concept.

Román (1999), describes the elements for the construction of an integrative curriculum model with a humanist socio-cognitive base; for which he begins by describing that the curriculum is based on two dimensions, one as a cultural selection and the other as a teaching-learning model. In the first perspective, it serves as a tool or mediator of social culture; and in the second, it describes the different trends in learning theories to diversify the educational practices used by teachers in a classroom environment.

The definition of the term curriculum, particularly in the case of Roman (1999), involves a compilation of a copious number of authors, coming to the conclusion that it is a polysemous term in which most authors handle planning concepts. Gimeno (1983, in Román, 1999), alludes that the confusion of the term curriculum ranges from the allusion to a structured programme of disciplinary contents.

The simplistic definition of considering a curriculum or curricular design only as a mesh of programmatic contents becomes a problem for its elaboration and execution. It is not only a matter of pouring topics and giving them a logical sequence, it is necessary to establish multiple conditions of the educational institution, the actors involved and the expected product. In the case of this author, his definition opens the framework of four major curricular models: the academicist, the technological-positivist, the interpretative or cognitive-symbolic and the socio-critical.

Román (1999) describes the curriculum from the perspective of these four models: the academicist tradition, the technological-positivist tradition, the interpretative tradition and the socio-critical tradition.

With regard to the term empathy, Goleman (1995), relates that with the reference of a study called Spectrum by the visionary Howard Gardner, intelligence began to diversify from a monistic theory to multiple intelligences, thereby giving weight to emotional intelligence. This would only be the beginning of the evolution in the transformation of intelligences made by this psychologist, who would later define interpersonal intelligence as the ability to understand others, the ability to form a realistic model of oneself and to use it to operate effectively in life. A dichotomy between cognition and emotion begins; it becomes necessary to understand the role of emotions and feelings in these intelligences and to explore intellectual characteristics that are not orthogonal to emotionality. Although many authors insist on making a distinction between what is thought and what is felt, it is necessary to know the role of emotions and feelings in these intelligences and to explore the intellectual characteristics that are not orthogonal to emotionality.

## Methodology

This study is based on a quantitative approach. In the first instance, a Cronbach's analysis was carried out to guarantee the validity of the research instrument, followed by an analysis of the frequency and percentage of signaléticos or respondent data to typify the sample extracted.

Finally, a comparative study was carried out to determine the significant differences in the sample studied with a Student's t analysis, in the variables sex, age, institution to which they belong and maximum level of studies.

## Results

Analysis of frequency and percentage of sex with respect to the sex of the respondents, 68.97% are women (n= 80), while the rest are men (n= 36, 31.03%).

	F	FA	%	%A
Woman	80	80	68.97	68.97
Male	36	116	31.03	100.00
Lost	0	116	0.00	100.00

**Table 1** Frequency and percentage of gender

### *Frequency and percentage analysis of the Institution of membership*

With respect to this variable, the respondent was asked to indicate in which institution he/she is currently studying for a postgraduate degree or, alternatively, to indicate where he/she completed his/her last postgraduate degree.

It can be seen that the majority correspond to the Faculty of Science, Education and Humanities of the Universidad Autónoma de Coahuila (FCEyH) with 78 respondents, equivalent to 67.24% and the rest to the Escuela Normal Superior del Estado (ENSE) with 38 respondents, equivalent to 32.76%.

	F	FA	%	%A
FCEyH	78	78	67.24	67.24
ENSE	38	116	32.76	100.00
Lost	0	116	0.00	100.00

**Table 2** Frequency and Percentage of Institution

### *Frequency and percentage analysis of academic level*

With regard to academic level, the FCEyH offers Master's and Doctorate degrees in Educational Sciences, while the ENSE only offers a Master's degree in Education with a specialisation in Compulsory Education.

For this sample it is observed that the majority of the subjects correspond to master's degrees (n= 64, 55.17%) and the rest to doctoral degrees (n= 52, 44.83%).

	F	FA	%	%A
PhD	52	52	44.83	44.83
Master's degree	64	116	55.17	100.00
Lost	0	116	0.00	100.00

**Table 3** Frequency and percentage of Academic Levels

### *Frequency and percentage analysis of age*

The age of the subjects ranged from 22 to 66, with the most representative age range being 27 years (n= 13, 11.21%). See Annex 3

### *Results of Student's t-comparative analysis*

In order to observe significant differences in terms of the sex of the respondents, their academic level and the institution where they completed their postgraduate studies, a comparative Student's t-test analysis was carried out for independent samples by groups, with the criterion of a probable level of error (p) of less than 0.05.

### *Comparative Student's t test for gender*

This analysis reveals that there are indeed dissimilarities in terms of sex, in this case measured dichotomously in males and females. Males given their mean value ( $\square$ ) reveal that they have acquired the specific skill in education for *In their opinion, they consider that their teachers use tests that require a lot of memory to answer and that they are punished if they do not do what they are asked to do. For their part, the women say that their teachers propose comprehensive projects*, in terms of the development of her emotional intelligence within emotional recognition and control, she considers that she feels that she can't take it anymore and cries, and of empathic skills, she distinguishes that when She identifies with the saying

"I put myself in their shoes", she considers that everyone in the classroom has the same rights, it is very common that when a person yawns she yawns too, and for the design of learning environments she considers listening with respect to her students expressing their opinions.

	Woman	Man	t-value	df	p
Inter	8.00	8.72	-2.33	114.00	0.02
Memor	3.74	5.14	-2.14	114.00	0.03
Castig	2.18	3.44	-2.01	114.00	0.05
Project	8.15	7.28	2.05	114.00	0.04
Cry	5.99	3.42	3.66	114.00	0.00
LlorTam	7.05	5.78	2.16	114.00	0.03
Shoe	8.61	7.81	2.19	114.00	0.03
Right	9.45	8.50	2.93	114.00	0.00
Yawn	7.96	6.86	2.21	114.00	0.03
Opinions	9.56	9.08	2.05	114.00	0.04

**Table 4** Comparative Student's t-test analysis of Gender

From this comparative analysis it can be inferred that men perceive educational environments in a more hostile way or with behaviourist characteristics, but their ability to perceive interdisciplinarity and act accordingly to carry out actions in the aftermath of it stands out.

In the case of women, the difference lies in the development of emotional intelligence skills circumscribed to empathy, they are more empathetic and tend to identify and show emotions, which is revealed in an evolutionary development in mirror neurons, as well as corroborating the colloquial theory of honour, in which women are allowed to show their emotions and men are observed and judged to do so, as it would denote weakness.

#### *Comparative Student's t-test analysis of the institution of membership*

The comparative analysis of the Institution of belonging shows that the students of the State Teacher Training College show mastery of knowledge about concepts in education as a distinctive feature of their graduate profile in terms of specific competences in education. In addition to observing in their reactions the development of three skills of emotional intelligence circumscribed to empathy,

When someone tells them about a problem, they feel as bad as if it were their problem, and if someone cries, they feel like crying too. With regard to emotional recognition and control, they indicate that they feel they can't cope any more and cry.

	FCEyH	ENSE	t-value	df	p
Concep	8.09	8.68	-2.23	114.00	0.03
Cry	4.72	6.16	-2.00	114.00	0.05
Probmal	6.56	7.66	-2.31	114.00	0.02
LlorTam	6.24	7.50	-2.16	114.00	0.03

**Table 5** Comparative Student's t-test analysis of Institution of affiliation

qWithin the curriculum of the master's degree of the Escuela Normal Superior del Estado (ENSE), there are programmatic contents that promote the development of some values and objectives of inclusion, as well as features of emotional intelligence, in addition to this, the students of this master's degree are regularly characterised by having students who have mostly graduated from the bachelor's degree in the same institution, a reason that could explain why they show an apparently more visible development in terms of emotional intelligence circumscribed to empathy, This could explain why they show an apparently more visible development in terms of emotional intelligence limited to empathy, since the degrees offered at this institution prepare students to be group teachers, unlike the degree in education at the Faculty of Science, Education and Humanities, which prepares professionals with a tendency to develop not only in teaching, but also in management, evaluation and research, so they are not strictly speaking teachers, but education professionals. With regard to the variable that shows that the teacher training students indicate that they have a mastery of concepts in education, it can be inferred that this is due to the fact that this group of ex-professional students take exams for entry into the education system and for permanence, in which theoretical knowledge is important.

#### *Comparative Student's t-test analysis of academic level*

This analysis shows differences in terms of the academic level that the respondents are studying or have studied, since the people who belong to the master's degree in both the ENSE and the FCEyH say that their teachers' main concern is to finish the plans and programmes, and they also perceive that the teaching methodology is characterised by receiving punishments if they do not do what they are asked to do, by giving them a lot of homework, despite the above, they also indicate that they use games in their learning strategies.

With respect to emotional recognition and control, they feel that they can't go on any longer and cry. Within the emotional intelligence circumscribed to empathy, they mention that when someone tells them a problem they feel as bad as if it were their problem, that if someone cries, they feel like crying too, that the mistakes they make and harm others make them feel guilty, that most of the problems they have are for helping others and finally that they cannot say no to people who ask them for something. In designing learning environments develop playful or gamification activities for learning (gaming) and consider that the best way to learn is in a face-to-face class.

	PhD	Master	t-value	df	p
Memor	3.38	4.81	-2.35	114.00	0.02
PlaPrg	5.42	6.66	-2.15	114.00	0.03
Castig	1.77	3.22	-2.49	114.00	0.01
Task	4.44	6.16	-2.69	114.00	0.01
Game	5.94	7.44	-2.66	114.00	0.01
Cry	3.79	6.33	-3.91	114.00	0.00
Probmal	6.17	7.53	-3.10	114.00	0.00
LlorTam	5.92	7.25	-2.43	114.00	0.02
Errors	7.27	8.38	-2.62	114.00	0.01
ProbAyu	4.69	6.33	-2.71	114.00	0.01
No	5.56	7.22	-3.22	114.00	0.00
Ludicas	7.77	8.64	-2.83	114.00	0.01
Presenc	6.77	8.31	-3.64	114.00	0.00

**Table 6** Comparative Student's t-test analysis of Academic level

It is very interesting to note that Master's students show in comparison to PhD students a development of emotional and empathy-related skills. Although their perception of how they receive education has some reminiscences of traditional practices in education or those that could be typified as behaviourist since the use of memory and punishment are related to this theory. On the other hand, it is necessary to note that the doctoral programme does not have formative subjects, but focuses on the scientific perspective and research, which might indicate the reason for the differences with the master's collective.

## Conclusions

### *Conclusions of the Comparative Student's t-test analysis of gender*

It is concluded that there are significant differences in terms of the sex of the respondents, as men show tendencies to perceive contexts in a behavioural way, but have developed the specific ability to design interdisciplinary activities. Women, on the other hand, identify and show emotionality. They have more developed skills of emotional intelligence circumscribed to empathy in that they are able to perceive what others feel.

### *Conclusions of the Comparative Student's t-test analysis of the institution of origin*

It is concluded that the institution to which they belong does make significant differences, since the normalista students (ENSE) are characterised by their mastery of concepts in education, due in part to the fact that it is a group that takes exams to enter the educational system and to belong to it. It is also observed that there is a difference in that in the ENSE they have developed skills related to emotional intelligence limited to empathy, either because the curriculum of the master's degree includes features of emotional intelligence, development of values and actions for inclusion. In addition, they are mostly graduates of the same degree offered by the ENSE, which has as graduates classroom teachers who are different from the graduates of the FCEyH who graduate professionals in education.

### *Conclusions of the Comparative Student's t-test analysis of academic level*

It is concluded that there are differences derived from the academic level to which the respondents belong, with master's degree students showing development in emotional intelligence skills limited to empathy, but not doctoral students. In addition, it is observed that Master's degree teachers show some traditional or behaviourist traits such as memorised exams, punishments or an excessive concern for completing the plans and programmes, in the opinion of their students. It is established that in the case of the doctorate, the programme contents are characterised by scientific knowledge and research, while in the master's degree there are still formative subjects.

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