

The Comprehensive Basic Education Reform Diploma Course in Mexico: The Opinion of Primary School Teachers of Yucatan and Tlaxcala

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Abstract

The purpose of the study was to determine the impact of the competency-based diploma course for the Comprehensive Basic Education Reform (RIEB) designed by IISUE on primary education teachers in the states of Tlaxcala and Yucatan. A questionnaire was used to collect information from the participating teachers, consisting of five parts: general information, professional training, employment status, RIEB 2009 Diploma Course for teachers of primary school and evaluation of the modules. Respondents from both Yucatan and Tlaxcala gave high ratings to the statements evaluating the RIEB 2009 Diploma Course as a whole, as well as to each of the three modules individually. However, respondents from Yucatan gave higher ratings than those of Tlaxcala, both for the course as a whole and for the individual modules.

1. Introduction

Latapí [5] interviewed five former secretaries of Public Education to analyze four state policies in Mexico, these being the National Agreement for the Modernization of Basic and Normal Education (AMNEB), the decentralization of basic education, curriculum reform and material and textbook production, and teaching reforms and social participation in education. Some continuity was found in the reforms implemented and the disposition of the Secretary of Public Education (SEP) in promoting state initiatives in substantive areas and to recognize the limitations caused by the predominance of a central federal power in basic education.

In particular, the 1993 reform in our country marked the reconceptualization of teaching and learning processes in basic education, as the pedagogical approach was reformulated, this narrowed the relationship of class subjects with the personal and social context of students in order to facilitate useful and lasting learning [9].

In 2004, the Basic Education underwent transformations, first with preschool and later with secondary education in 2006 [7], [8], [9].

The 2007-2012 National Development Plan and the 2007-2012 Education Sector Program were elaborated to achieve educational transformation in Mexico. Based on these documents the Comprehensive Basic Education Reform (RIEB) was developed and implemented, aiming to achieve coordination and integration between the different grades of basic education, as well as to provide a consistent training program tailored to the needs facing Mexican society in the twenty-first century.

In 2008, the need for a review process of primary education became evident to coordinate with the last year of kindergarten and the first year of secondary school. Thus a pilot program was established and implemented in the first and sixth grades to foster competencies development for basic education. In order to do this, educational needs were defined and the subjects to be included in the basic education curriculum were also identified, with the intention of meeting educational objectives established in the student profile of the program [11].

This reform was implemented nationally in 2009 and included various aspects that made up the curriculum development in its broadest sense, as to go beyond a reductionist standpoint. All conditions and factors were studied that make it feasible for graduates to meet high performance standards: knowledge, skills, attitudes and values [10].

The 2009-2010 school years marked the beginning of the comprehensive basic education reform in primary education in Mexico with its implementation at the national level in the first and sixth grades. As part of this action, the Department of Teacher Education of the Secretary of Basic Education requested that the Institute for Research on University and Education (IISUE) develop a diploma course through which teacher training was to be conducted on the core elements of this reform.

The diploma for primary school teachers consists of three modules of 40 hours each, totaling 120 hours, and is structured as follows. The first module, Introduction to the reform, includes information about the needs that gave rise to the reform, the plan and 2009 curriculum and textbooks, in order for teachers to recognize the importance of both the reform and the elements that characterize it. Module two, development of competencies in the classroom, includes the theoretical foundations for the

competency-based approach, its characteristics and the importance in the development of student learning. Module three, assessment and teaching strategies, covers strategies for planning and evaluation relevant to the reform, considering the teachers' own experiences and environment of the school in which they work [12], [13], [14].

2. Purpose and objectives

In this context, the purpose of the study was to determine the impact of the competency-based diploma course for the Comprehensive Basic Education Reform (RIEB) designed by IISUE on primary education teachers in the states of Tlaxcala and Yucatan.

The objectives of the study are:

1. Analyze the opinions of Yucatan and Tlaxcala teachers regarding the pedagogical relevance of the diploma course, the comprehension of the competency-based approach and the level of acceptance of the RIEB.
2. Compare the responses of Yucatan and Tlaxcala teachers in terms of sex, and type of school system variables.

3. Theoretical Framework

Many countries throughout the world have implemented educational reforms that seek to achieve improvements in school systems, in different contexts and realities, as actions that have two main intentions: to make improvements in school systems and to address key issues such as access, equity, quality, effective management, funding and autonomy.

In Latin America there have been several types of educational reforms: some have allowed for the restructuring of organizations and management methods, while others have changed their curricula and incorporated evaluation as an ongoing exercise for both students and teachers [12].

One of the most well-known cases of successful educational reform is Finland, who's reported results from the Program for International Student Assessment (PISA) in 2000 and 2003 drew international attention to the national education reform undertaken in the country [1].

In the case of Mexico, the PISA results show problems in comprehension levels of students. This problem has been one of the areas of reform analysis which produced basic education curriculum adjustments in 2011, seeking greater competitiveness for Mexican students: the achievement of curriculum standards parallel to the PISA from expected learning levels and the coordination of different levels of basic education.

However, the implementation of education reform according to Diaz Barriga and Inclán [3] should

generate a mechanism in which teachers participate, so that in this context they gradually build some elements of ownership. The challenge lies in the way in which they manage to give the essential elements of the reform to the teacher, a complex situation as it is difficult to establish a mechanism that helps each teacher appropriate the reform or make it his or her own.

Without this process of appropriation, it is difficult for a teacher to feel part of the reform. Loyó [6], in an exploratory study, shows evidence of this problem conducting in-depth interviews with 20 teachers, all of them teaching at the time, with between 10 and 30 years of teaching experience, and from various states of Mexico. The study showed that teachers do not get involved in the reform process because they perceive the innovations as imposed products and that education authorities do not present clear grounds or justifications for them, therefore regarding them as "arbitrary."

Therefore, the formation processes of appropriation should be elements that, according to Diaz Barriga [3], require a culture of innovation based on professional learning communities among teachers working in collaborative projects for work and that benefit their community context in a critical discourse aimed at transforming teaching.

Teacher education is a process that occurs not only at the beginning of teaching, but rather continues to occur throughout one's practice, to develop the skills required in the educational profession, through updating and training.

It is a process of social practice, whereby individuals assimilate, transmit, and test theories and educational experiences in order to transform them and share them. The teacher training process, according to Chehaybar et al (1996) has two substantive components that are likely to be evidenced and described with data and facts, as in the case of the Diploma course for comprehensive basic education reform for primary school teachers: the first is an empirical manifestation, whose speech and behavior are likely to be analyzed and presented in the existence of proposals for action, programs and projects. The second component is constituted by the interpretations, ways of conceptualizing criteria, categories and links that allow its abstraction and theoretical understanding.

4. Method

A quantitative, descriptive, and survey study was conducted regarding the opinions of primary teachers who participated in the RIEB 2009 Diploma Course.

4.1 Population and participants

The population consisted of all teachers in the first or sixth grade who participated in the RIEB

2009 Diploma Course. Data was collected from a total of 2911 subjects, 1121 from the state of Yucatan (64.5% women and 35.5% men) and 1790 from the state of Tlaxcala (75% women and 25% men).

Of those surveyed from the state of Yucatan, 756 (67.4%) are employed by the federal system, 258 (23%) by the state system and 107 (9.5%) did not answer. In relation to the location of the school where they work, 725 (64.7%) are in urban schools, 318 (28.4%) in rural schools and 78 (7%) did not respond.

Of those surveyed from the state of Tlaxcala, 1338 (74.7%) are employed by the federal system, 426 (23.8%) are employed by the state system and 26 (1.5%) did not answer. In relation to the location of the school where they work, 936 (52.3%) are in urban schools, 718 (40.1%) are in rural schools and 136 (7.6%) did not respond.

4.2 Instrument

A questionnaire was used to collect information from the participating teachers, consisting of five parts: general information, professional training, employment status, RIEB 2009 Diploma Course for teachers of primary school and evaluation of the modules.

Part 4 consists of 35 statements, employing a Likert scale to generate ratings on three central themes: a) Pedagogical perspective, b) Competency-based approach and teacher education, and c) Comprehensive basic education reform in the classroom.

In this paper we take into account four of the questions in the first part, the 35 statements in the fourth part and the three questions from the fifth part.

The reliability of the 35 statements was calculated using Cronbach's alpha coefficient and obtained a value of $\alpha = 0.958$ for the population of respondents in the state of Yucatan and a value of $\alpha = 0.954$ for the population of the state of Tlaxcala. Table 1 presents the results of reliability for each of the three factors in the two states.

Table 1. Reliability by factor and state

Factor	Reliability (α)	
	Yucatán	Tlaxcala
Pedagogical perspective	0.89	0.87
Competency-based approach and teacher education	0.92	0.88
Comprehensive basic education reform in the classroom	0.89	0.90

5. Results

5.1 General opinion about the Diploma

It was found that the respondents, both from Yucatan and Tlaxcala, showed to be in agreement on all of the statements, as well as on each of the three factors. The respondents from both populations had the highest average score in the competency-based approach and teacher education, and respondents from Yucatan had mean scores higher than those from Tlaxcala (see Table 2).

Table 2. Mean score by factor and state

Factor	Mean score	
	Yucatán	Tlaxcala
Pedagogical perspective	4.25	3.94
Competency-based approach and teacher education	4.28	4.06
Comprehensive basic education reform in the classroom	4.16	4.00
TOTAL	4.23	4.01

Results also show that respondents from both Tlaxcala and Yucatán rated the third module of the diploma as best and that the respondents from Yucatan rated the three modules significantly better than did the respondents from Tlaxcala (see Table 3).

Table 3. Global average rating by module and state

Module	Mean score	
	Yucatán	Tlaxcala
First	3.69	3.58
Second	4.26	3.98
Third	4.49	4.15

5.2 Yucatan

Significant difference was found between men and women regarding pedagogical perspective ($t = 2.65$, $df = 1022$, $p < 0.05$) competency-based approach and teacher education ($t = 2.90$, $df = 1051$, $p < 0.05$), comprehensive basic education reform in the classroom ($t = 2.66$, $df = 962$, $p < 0.05$) and in the mean total scores of all the statements ($t = 3.103$, $df = 864$, $p < 0.05$). In all cases the responses were significantly higher for women than for men (see table 4).

Table 4. Mean score by factor for men and women surveyed in Yucatan

Factor	Mean score	
	Men	Women
Pedagogical perspective	4.18	4.28
Competency-based approach and teacher education	4.22	4.32
Comprehensive basic education reform in the classroom	4.09	4.20
TOTAL	4.15	4.27

No significant difference was found between men and women in the global average rating given to the first module ($t = -1.39$, $df = 1095$, $P > 0.05$), nor in the second module ($t = 1.69$, $df = 1057$; $p > 0.05$) or the third module ($t = 1.87$, $df = 1057$, $P > 0.05$).

No significant difference was found between respondents from urban schools and those from rural schools in the mean scores regarding pedagogical perspective ($t = 1.32$, $df = 955$, $P > 0.05$), nor concerning the competency-based approach and teacher education ($t = 1.04$, $df = 984$, $P > 0.05$) or in the mean total scores of all the statements ($t = 1.41$, $df = 815$, $p > 0.05$). However, significant difference was found in mean scores regarding comprehensive basic education reform in the classroom ($t = 2.24$, $df = 903$, $p < 0.05$). Respondents from urban schools are more in agreement with comprehensive reform in the classroom than those from rural schools.

No significant difference was found among respondents from urban schools and rural schools in the global average rating given to the first module ($t = 0.11$, $df = 1020$, $P > 0.05$) or to the third module ($t = 1.43$, $df = 986$, $p > 0.05$) but there was significant difference in the global average rating given to the second module. Respondents from urban schools rated the second module significantly better than those from rural schools.

Significant difference was also found between respondents from federal schools and state schools in the mean scores related to pedagogical perspective ($t = -2.49$, $df = 934$, $p < 0.05$) as well as in mean scores regarding the competency-based approach and teacher education ($t = -2.32$, $df = 957$, $p < 0.05$), in the mean scores on comprehensive reform in the classroom ($t = -2.86$, $df = 873$, $p < 0.05$) and in mean scores of all the statements ($t = -3.02$, $df = 787$, $p < 0.05$). Respondents from state schools had significantly higher mean scores than the respondents from the federal schools.

No significant difference was found between respondents from federal schools and those from state schools in the global average rating given to the first module ($t = -1.18$, $df = 995$, $P > 0.05$), nor in the second module ($t = -1.78$, $df = 962$, $P > 0.05$) or the third module ($t = -1.61$, $df = 963$, $P > 0.05$).

5.3 Tlaxcala

No significant difference was found between men and women regarding pedagogical perspective ($t = 1.00$, $df = 1591$, $P > 0.05$) nor in terms of comprehensive basic education reform in the classroom ($t = 1.25$, $df = 1579$ $p > 0.05$) or in the mean total of all statements ($t = 1.82$, $df = 1362$, $P > 0.05$) while significant difference was found between men and women regarding competency-based approach and teacher education ($t = 2.54$, $df = 2542$, $p < 0.05$). Women had higher mean scores than men in the competency-based approach and teacher education (see Table 5).

Table 5. Mean score by factor for men and women surveyed in Tlaxcala

Factor	Mean score	
	Men	Women
Pedagogical perspective	3.92	3.95
Competency-based approach and teacher education	4.00	4.08
Comprehensive basic education reform in the classroom	3.97	4.01
TOTAL	3.96	4.03

No significant difference was found between men and women in the global average rating given to the first module ($t = -1.39$, $df = 1691$, $P > 0.05$), nor to the second module ($t = 0.04$, $df = 1706$; $p > 0.05$) or to the third module ($t = 1.14$, $df = 1729$, $P > 0.05$).

Significant difference was found between respondents from urban schools and those from rural schools in the mean scores on pedagogical perspective ($t = 2.39$, $df = 1505$, $p < 0.05$), mean scores on the competency-based approach and teacher education ($t = 3.42$, $df = 1529$, $p < 0.05$), mean scores on comprehensive reform in the classroom ($t = 3.52$, $df = 1474$, $p < 0.05$) and the mean total scores of all statements ($t = 2.90$ $df = 1292$, $p < 0.05$). Respondents from urban schools had average scores significantly higher than those of respondents from rural schools in all three factors.

Significant difference was found between respondents from urban schools and those from rural schools in the global average rating given to the first module ($t = 0.11$, $df = 1020$, $P > 0.05$), to the second module ($t = 1.43$, $df = 986$, $P > 0.05$) and to the third module. Respondents from urban schools rated the three modules significantly better than did those surveyed from rural schools.

Significant difference was found between respondents from federal schools and those from state schools in the mean scores on pedagogical perspective ($t = 1.95$, $df = 1578$, $p < 0.05$) and mean scores on comprehensive reform in the classroom ($t = -2.08$, $df = 1567$, $p < 0.05$) while no significant

difference was found in mean scores on the competency-based approach and teacher education ($t = -0.90$, $df = 1626$, $P > 0.05$) or in the mean scores of all statements ($t = -1.72$, $df = 1351$, $P > 0.05$). Respondents from state schools had significantly higher mean scores than the respondents from federal schools on both pedagogical perspective and comprehensive reform in the classroom.

Significant difference was found between respondents from federal schools and those from state schools in the global average rating given to the first module ($t = -3.05$, $df = 1677$, $p < 0.05$) but not to the second module ($t = -0.94$, $df =$, $P > 0.05$) or to the third module ($t = 0.51$, $df = 1713$, $p > 0.05$). Respondents from state schools rated module one significantly better than those surveyed from federal schools.

6. Conclusion

In conclusion, respondents from both Yucatan and Tlaxcala gave high ratings to the statements evaluating the RIEB 2009 Diploma Course as a whole, as well as to each of the three modules individually. However, respondents from Yucatan gave higher ratings than those of Tlaxcala, both for the course as a whole and for the individual modules.

The analysis of the different central themes shows that teachers are more concerned about those elements derived from the training process and from the RIEB that can be applied directly in their teaching, as ownership of the approach to support vocational training, strategies and notions of teaching and assessment processes from planning, development and evaluation that teachers believe will develop in the classroom.

They also positively evaluated the relevance of teaching strategies and notions of self-assessment suggested for teacher training, and the conceptualization of the competency-based approach and its core elements.

The degree of acceptance of the reform also reflects very good reviews, such as the attitude of teachers toward the RIEB, their conceptualization and degree of acceptance all of which yielded the highest ratings of the average. However, the aspect relating to the viability of the RIEB based on teaching and institutional conditions was assessed with lower ratings, making it necessary to consider in the future implementation of the RIEB in primary education.

However, Yucatan teachers gave higher scores than those of Tlaxcala, both in the three factors assessing the RIEB and in the overall rating issued to the three modules of the diploma.

The general data variables that influenced the respondents' opinion about the RIEB 2009 Diploma were sex, type of school system, and school location.

The results show that when teachers are involved in educational reform, as in this case from a training process, we develop a greater commitment to appropriate the conceptual content and attitudes involved in making changes in pedagogical practice.

The implementation of any reform in the curriculum requires the committed and enthusiastic participation of teachers who, as mentioned by Alvarez [2] and Inclán and Diaz Barriga [4] arrive at a training program for various reasons, such as to get updated on new knowledge, or in this case to meet the guidelines of the RIEB; others to strengthen and confirm the skills and knowledge acquired during their professional experience, some more in order to have the opportunity to exchange experiences, and yet there are those who only see an opportunity for recognition and upward social mobility granted by the certification.

In this sense, the assessment that teachers make on the various elements of the diploma, as a process of continuous evaluation and articulation with the classroom work is positive. It is concluded that teachers in both states, Yucatan and Tlaxcala, gave high ratings to the statements evaluating the RIEB 2009 Diploma Course as well as to the three modules.

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