INCLUSIVE EDUCATIONAL PRACTICES IN RURAL COMMUNITIES OF THE YUCATAN PENINSULA

Dr. Maria Cristina Osorio Vazquez*
Affiliated Researcher To The Department Of Governance And Technology For Sustainability (CSTM), University Of Twente, The Netherlands, Echidna Global Scholar, The Brookings Institution, USA.

Prof. Dr. Hans TH.A. Bressers**
Emeritus Professor Of The Faculty Of Behavioral, Management And Social Sciences, Department Of Governance And Technology For Sustainability (CSTM), University Of Twente, The Netherlands.

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ABSTRACT
In southeast Mexico, Maya girls have to memorize and repeat without fully understanding the subjects taught, practices commonly seen in rural villages due to the lack of acceptance of multilingualism in the classroom and failure in incorporating indigenous knowledge in the pedagogical practices. Additionally, gender norms limit even more their participation in school. Therefore, this research aims to analyze inclusive educational practices from the experience of rural teachers who favored the educational advancement of girls in Maya communities. For this purpose, this study was developed under a variety of mixed research methods that included a quantitative data from institutions dedicated to the promotion of the educational rights of women and indigenous peoples in Mexico and the world. These were used to sketch the context of the educational practices. The use and implementation of the educational practices themselves was studies by a qualitative methodology with semi-structured interviews revealing the narrative of the work and educational experiences of rural teachers. It was found that indigenous education policies promote gender and ethnocultural equality by integrating knowledge, cultural practices and the valuing of linguistic diversity in the rural classroom; however, in practice, the teaching of Spanish prevails over the Mayan language. In addition, poverty, gender norms and the lack of basic services that still prevail in rural communities hinder both girls and boys to achieve higher levels of education.

Keywords: Teachers-Maya-Girls-Rurality-Education.

1. INTRODUCTION
In Mexico, 76.2% of indigenous language speakers live in rural communities. In these villages there are high rates of poverty and marginalization, which hinder access to education, therefore their inhabitants are considered at greater risk and more vulnerable to late entry into the National Education System (SEN by its acronym in Spanish). In this context, there are high levels of non-attendance, course failure, grade repetition, presence of extra-age students, school dropout and

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In Mexico, villages with less than 2500 inhabitants are referred to as rurals. Extra-age refers to the gap between the student's age and the normative age for a given grade. This can happen for various reasons, including late entry into the school system, course failure and temporary dropouts. School dropout refers to the percentage of enrolled students who stop attending school, either during the course of the school cycle or who did not enroll in the following cycle.
educational backwardness⁴, which affects the indigenous and Afro-Mexican population to a greater extent²,³,⁴,⁵,⁶,⁷,⁸,⁹,¹,¹⁰.

In the Yucatan peninsula, the Yucatecan Mayan ethnic group predominates in rural communities⁸.18.3% of this ethnic group lacks schooling (14.8% of men and 21.9% of women¹¹). The majority of the Mayan-speaking population resides in the state of Yucatan where 59% of the people who do not attend school are indigenous⁶.

Most of the inhabitants of these communities are engaged in subsistence agriculture and informal trade, which means that income is scarce and inconsistent¹². In this regard, studies have consistently demonstrated that the major cause of school dropout is due to lack of economic resources¹³,¹⁴,¹⁵. considering that eight out of ten indigenous people live in poverty¹⁶.

Traditionally, it was thought that a woman upon marriage would have no income on her own, as she would depend on her husband, therefore investing in her education was considered an unnecessary expense¹⁷,¹⁸,¹². However, for more than a decade, research conducted in the region has shown a change of perspective in this regard¹⁵,¹²,¹⁹. Nowadays, some families decide which son or daughter to support depending on their probability of obtaining higher degrees of schooling based on their academic performance, which would mean obtaining a better job in the future and additional income for supporting the family.

This utilitarian vision favored the educational development of female family members. At present, data from the National Institute of Statistics and Geography in Mexico (INEGI for its acronym in Spanish) show that women are currently obtaining higher levels of schooling than men if they complete their basic education⁵, not only among Mayan-speaking women in the state of Yucatan¹² but also throughout the country, including at the postgraduate level²²,².

If the daughter is supported to continue her studies, this is with a series of restrictions imposed by her parents, such as not having a boyfriend, not attending social events or going to the park to chat in the afternoons with her friends¹², conditions that are not established for sons, demonstrating established gender norms towards women in these communities²³.

If the economic situation combined with gender norms forces girls to interrupt their studies before completing their basic education, they could stay at home for housework and caregiving⁶ 24,¹⁸,²⁵,¹⁵ or enter the labor market at an early age. In the last case, sometimes it is the parents who promote this decision to support family expenses¹⁸ or it is the girl herself who decides to work to financially support her younger siblings to continue their studies²⁶.

Educational backwardness is understood as the number of Mexican people aged 15 years or older who have not completed basic education¹⁵,²¹. In Mexico it affects two out of every five indigenous language speakers¹. In Mexico, basic education is comprised of four levels: early childhood, preschool, primary and lower secondary⁶. To support the needs of other family members who require it, such as the elderly, children and people with disabilities or illnesses.
In this regard, international studies have demonstrated that early insertion into the labor market affects educational advancement, negatively impacting future employability opportunities and income levels due to low schooling 27, 28, 29.

Therefore, the following research question is established: Which inclusive educational practices are used to promote the educational advancement of Maya girls living in rural communities and what is their implementation in practice?

In this way this research paper is organized as follows: the second section addresses the role of teachers in rural communities, the third section presents the theoretical framework, the fourth section the methodology. In the fifth section the results will be presented in the form of citations gathered in the interviews that shed light on the practices and their implementation, with a subsequent systematic overview, using CIT. The sixth section presents the discussion of the data and the last section the conclusions.

1.1 The role of rural teachers in Maya communities
In Mayan communities, the teacher, along with the doctor and the priest, is considered among the community leaders 30 and it is common for villagers to consult them on public and private matters. Hence the importance of their involvement in supporting the academic development of Mayan girls living in rural communities, since as community leaders it is often the teachers who convince parents to enroll their daughters to continue their studies, advocating for the girls' abilities and future expectations 12.

Teacher commitment helps students to be resilient and reduces the risk of dropping out of school 31, in addition to fostering students' motivation, confidence in their abilities and a sense of belonging 32, 33. In addition to this, it has been documented that in the face of the risk of school dropout, it is the teachers who visit their students' house by house 34, a task that is not paid but does favor the understanding of the reasons for school truancy.

However, rural teachers face unfavorable working conditions, where lack of services, material resources and inadequate infrastructure -including internet- are common 7, 35. They usually work with students in unitary 7 or multigrade schools 8 and perform administrative and school management functions alongside their teaching work 36, 9, 37, 12.

Due to difficult working conditions along with the remoteness of the villages, more than 80% of teachers do not remain in rural communities, places considered temporary for young inexperienced teachers 10, 9 contrary to the needs of the population.

Therefore, the Mexican government, through the Secretariat of Public Education (SEP for its acronym in Spanish), has promoted rural teachers as "community development actors", participating in their teaching functions and organizing activities with the villagers, seeking their
permanence in these communities. The rooting program is also promoted, whose purpose is to help reduce the high turnover and absenteeism of teachers in schools located in highly marginalized rural communities, characterized by their dispersion, difficult access and lack of public services, by providing compensation to the teacher.

2. THEORETICAL FRAMEWORK

In this research, the theoretical contribution of Emile Durkheim was utilized, which defines education as a social fact and analyzes the role of society. Durkheim’s theory is of special importance to understanding the social interactions that occur in the community and the supportive relationships that teachers can offer to encourage girls to continue their studies in this context.

The research conducted by Floyd with African American students in California was included to demonstrate how teachers, as part of the community, promote their students' self-esteem through the development of their competencies and skills. They use the school as a safe space for girls to develop self-confidence and promote in students the aspiration to constantly improve themselves.

The theoretical approach of inclusion developed by Reich was used to identify if ethnocultural justice and gender equality are promoted in the classrooms. Reich developed his theoretical concepts in the German context to encourage equity and diversity contributing to the country’s development.

CIT is developed as an analysis model of the implementation process of programs and public policies. It conceptualizes implementation processes as social interaction between the actors involved, considering their motivations, cognitions and resources, that make up the context in which these interactions take place. This model is based on programs that are applied by and to human beings, with their perspectives, capacities and limitations. Hence, in this case, the ethnocultural and gender-inclusive educational practices were analyzed to observe their deficiencies as well as the degree of success in their implementation.

3. METHODOLOGY

This empirical study utilized a variety of quantitative and qualitative research methods explained below. The quantitative methods were mainly used to contextualize the qualitative results.

The quantitative methodology was based on secondary data from institutions dedicated to the promotion of the educational rights of women and indigenous peoples in Mexico and the world. These organizations include the Secretariat of Public Education (SEP for its acronym in Spanish), as well as the United Nations, particularly the United Nations Educational, Scientific and Cultural Organization (UNESCO), among other national and international sources of information. The results of this can be mainly found in sections one and two, and will return in the discussion and conclusions as the context for the qualitative data. The qualitative methodology was employed through semi-structured interviews and a compilation of experiences of rural teachers working in rural Maya communities.

Programa de arraigo in Spanish.
It is considered empirical because it is based on the experience of the participants, in this case, rural teachers in the Yucatan peninsula. It has a descriptive aspect as it allows an analysis of the characteristics of individuals and communities based on the collection of data on different aspects of the research45. These kinds of studies are common in social science research46. The inclusive practices used are mentioned in section five, but more importantly also illustrated with quotations from the interviews as this gives the reader the opportunity to gain direct insight into their way of implementation. Were necessary some explaining sentences are added to help understand what these quotations mean in the context of rural education in Maya communities.

A historical review was developed about the rural school in the Yucatan peninsula based on a literature review and the experiences of the teachers who participated anonymously and voluntarily in this study. The fact that their participation was anonymous and voluntary allowed greater freedom in the responses regarding their life experiences in rural communities and their interactions with community leaders, parents and their students. These tools were able to offer diverse points of view, beyond official statements; they also provided a more complete and in-depth picture of the context and the characteristics of the people involved in the events46.

Primary data came from semi-structured interviews and were conducted by the first author in December 2022. The interviews took place in the homes of the teachers with the presence of a translator from Mayan to Spanish. The questions were divided into three sections which included general information about the interviewee and the use of gender and ethnocultural-inclusive practices in their teaching in rural areas.

A non-representative sample of nine rural teachers was considered, of which two were women and seven were men, following the sample suggested for this type of study10. All rural teachers who were invited to participate in the interviews were selected based on their experience working in rural communities. All accepted voluntarily. None of them refused to participate. The rural teachers worked in public schools in Yucatan, Quintana Roo and Campeche in the Yucatan peninsula. The sample is considered non-probabilistic or targeted because they are voluntary subjects, and because the choice of participants was not made randomly, but depended on the teachers’ decision to participate.

Their teaching functions in rural communities were varied, although teaching in primary-level schools predominated, they also worked at the secondary level, in night schools where they taught adults with educational backwardness, and in teacher training colleges, among other functions.

The rural communities where the teachers obtained their experiences are San Isidro Mac-Yan, San Diego Buenavista, San Mateo, Ichmul, Tiholop, Tigre Grande, Noh-Bec, Tres Reyes, Sitilpech, Nahbalam, Kakteil, Xmaben, Cuncunul, Dzitnup, Yaxché, Dzununcán in the state of Yucatan. Cafetal, Cafetalito, Santa Rosa, X-Cabil in the state of Quintana Roo and Dziché in the state of Campeche.

**4.RESULTS**

For this type of study, a sample of six to ten participants is suggested46.10
In this section, the inclusive educational practices will be mentioned, illustrated by citations from the interviews with the participants to answer the main research question on how their implementation looks like in practice. Thereafter a systematic overview will be presented using the key concepts from the CIT.

4.1 Gender inclusive practices

Gender-inclusive practices aim to include curricula, programs and activities that are committed to equity and access. Not following these practices may result in isolating students, hindering diversity, and/or perpetuating gender stereotypes. Discriminatory gender norms and harmful practices that deny girls access to school and quality learning. Examples of gender-inclusive practices are the promotion of sports for both sexes, acceptance in the classroom of girls who live with their partner at an early age, reintegration of adolescent mothers into the school system, public services that allow girls to attend school during their menstrual period, opportunities for girls to participate and express their opinion, promotion of activities that strengthen their self-esteem, among other actions. These were the comments in this regard:

The procedure used to avoid prolonged absences of girls from school associated with early marriage, pregnancy, distance from school, care of relatives and other barriers to girls' education is to visit parents in the afternoon, after school, to talk with them: "first we had to communicate it to the headteacher, if three more days went by that the girl did not attend, in the communities you have to visit, you have to go look for them to see what is going on." "they rarely missed classes, but when there was a case like that, we visited them because they all lived close by and we asked the parents, the teachers do the follow up of these cases, the parents liked the teachers' visits, they invited us for a meal".
"those cases did not occur among my students because I was teaching small children, in the groups where the children were older, the girls were left at home to help with the household chores. There is a detection mechanism when teachers are asked to census the population, then we found children who do not go to school. During the census the teachers go from house to house and we would detect through the census data children who did not have schooling, they were invited [to attend school], and they were recorded in some census statistics, but I think nothing was done about it." "there was very little absenteeism, and when it happened, as teachers we went to the parents to find out why the children did not go to school, generally this happened to the boys. The boys were taken to the fields to do agricultural work to help their parents support the household. Other children from the community were also involved if the absence was not long: "sometimes when there were absences of this type, we send a neighbor or classmate with the homework so that the girl could do it and then the neighbor would bring us the homework done. There were almost no school dropouts, they took advantage of the education they were given in the rural communities".

It was commented that early marriage and pregnancies were not frequent in these communities. However, some of the teachers shared their experiences in this regard: "I had a situation where a sixth-grade girl wanted to get married, but as a teacher, I advised her not to do it because she was too young. You have to tell them what consequences their actions have for the rest of their life." "there was a custom of getting married early in their life, around 15 or 16 years of age".
Another teacher confirmed the latter: "around 15 years of age they usually married". These last statements coincide with the official data\textsuperscript{11}.

Regarding discriminatory measures at school for girls who were pregnant or living with a partner, the following comments were made:

"I did not witness that, the girls excluded themselves if something like that happened".

It was commented that male teachers were advised during their training about how to deal with fifth and sixth-grade girls entering puberty. It was common for them to hear the following statement as a precautionary measure: "Stop teacher, put on the brakes" meaning that they have to keep a distance from the girls to avoid the development of an inappropriate relationship.

Among the initiatives to promote gender equality through activities, the following was mentioned: "in my classes I made them play sports like softball between boys and girls, also the boys embroidered, and they did it more beautifully than the girls, they were very careful, but the parents were asked for permission first before teaching the boys to embroider".

"the girls and boys worked together on the vegetable garden".

Another of the teachers implemented on his initiative mixed boxing classes among his students in rural areas: "I encouraged the holistic education of boys and girls, they boxed".

It was also mentioned that gender stereotypes were promoted in the family, not at school:

"in their homes they had gender stereotypes, girls were for washing, cooking and doing household chores, at school that did not happen".

"when the boys left school, they went to the agricultural fields to help their fathers and the girls stayed home to help their mothers with household chores, including cooking".

"the boys were taken to the fields; the girls were left at home to do chores and take care of their siblings while their mothers worked. In the books they disguised it very well. The texts were modern, they had innovative ideas, but it was the customs, the traditions that determined what a girl should do".

As to whether there were flexible schooling options for girls who have fallen behind in their education, one of the teachers commented that they exist: "up to the age of 14 they can attend primary level school, after that the school itself does not allow it, after 14 they are sent to a night school\textsuperscript{12}". However, it should be noted that those schools are regularly located in the urban centers far from rural communities, which means that there is little chance of continuing studies in the event of falling behind in school. As one of the teachers commented: "boys and girls who dropped out due to economic and personal problems went to adult schools, but these only existed in the cities".

\textsuperscript{11} 42.4\% percent of women in rural localities were living with a partner or married before the age of 18, almost twice\textsuperscript{11} as many as those in urban localities (26.4\%). The situation is even worse among women who speak an indigenous language, where 46.5\% were living with a partner or married before the age of 18, higher than the 28.9\% of those who are not indigenous language speakers\textsuperscript{23}.

Schools for adults operate in the evenings due to the fact that the majority of the students work or have family responsibilities.
Male chauvinist customs were also mentioned when there were adult education options within the rural community: "in the evenings there was adult education, some women went, but few. There was a situation of husbands’ jealousy because the women were getting an education and they were not, the husbands did not get further education because they did not want to and they told them [to the women]. What were they doing there?".

Concerning the procedures for reporting gender-based violence at school, it was stated that when it happened at school, the headteacher was informed; if it happened outside the school, the girl's mother was contacted. As to the existence of campaigns to prevent gender-based violence, the following comments were made: "lately yes, but more in the city [of Merida], the health center staff or psychology students give talks about it, also the Support Services Units for Regular Education (USAER for its acronym in Spanish)\textsuperscript{13} and special education teachers, there are social workers who would inquire if something was happening as domestic violence that affected the girls."

"now yes, employees from the city hall went to the school, from the Drugs Abuse Resistance Education (DARE)\textsuperscript{14} program".

"there were no campaigns to prevent gender violence, in rural communities their customs are respectful, this was reaffirmed through textbooks that had stories about respect and we teachers made them reflect on these narratives".

Regarding sex education in the classroom:
"only the fifth and sixth-grade teachers explained about it if it was part of the curriculum. In the first years, sexuality was discussed about plants".
"the health sector of the municipality gave talks to the students, particularly on hygiene".

There were also constraints regarding sex education:
"we wanted to teach the subject, but one of the girls told her mom and the next day seven moms were standing around waiting for [me] to enter the classroom, the moms were upset and went to complain to the headteacher".
"yes, it was taught, but it was very difficult, the teacher gave the course, but it was more about hygiene and care, the male teachers taught the parents and the female teachers taught the mothers, the children were not told about it, because the parents did not want to, they were afraid that it would encourage them".
"the mothers were the best ones to talk about sexual issues with the girls".

As to whether there were sanitary pads and tampons available for the girls and a place with water to change during their menstrual period:

\textsuperscript{13}USAER are technical-operational instances of special education in charge of providing technical, methodological and conceptual support to basic education centers. Their purpose and their work are synthesized in guaranteeing, jointly with the school, the right of all students to receive an inclusive education, paying attention to the population with disabilities and to those students at risk of being excluded, marginalized or of abandoning their schooling process, due to the lack of adaptation of the contexts to their learning needs\textsuperscript{49}.

Among the objectives of DARE is to provide students with accurate information about the physical, emotional, social and legal risks and effects of alcohol, tobacco and drug use on their minds and bodies. This information helps the students understand the harmful effects of drugs and the violence they can lead to, to be able to avoid them\textsuperscript{50}.\textsuperscript{14}
“yes, there were water and sanitary pads in the first aid kit that was in the headteacher’s office, the pads were only in case of an emergency”.

“there were bathrooms with water, but there were never sanitary pads. As for information, on very rare occasions a nurse or a medical student would come and give a talk to the girls, then the boys would be taken out of the classroom. The teacher is so busy with the curricula that it is not possible to deal with these issues either”.

However, comments prevailed that in rural communities there was no water, sanitary pads or tampons available, girls only had latrines located at the back of the school grounds. The latrines were separate for girls and boys and were sterilized by burning garbage, ash and lime.

As to whether there were opportunities for girls to express their opinions in school:

“yes, they were given the freedom to speak out, but there are few who express themselves, now it is happening more often”.

“in the past they did not express their opinion out of shame, but now they do, both boys and girls express their opinion and complain if they do not agree with something, nowadays they are very influenced by what they see on the Internet and that brings them many behavioral problems”.

“the most that used to happen was that if they liked to recite, the teacher would ask them to learn [a poem] and they were taught gestures, to sing, to dance. They were allowed to speak, but they did not do it”.

“they were encouraged to develop themselves, their self-confidence and to learn Spanish”.

“yes, there were equal opportunities. When it came to any educational topic, both girls and boys had the same right to express themselves. Boys were never given preference”.

Regarding the promotion of the value of girls within the school it was commented on:

“with the courses that the municipal authorities give you, the values of girls and gender equity are promoted a lot, in the classes of civics and ethics, this topic is addressed”.

“there are many activities, now with the pandemic it was recommended to talk about that, about bullying, because of the isolation measures”.

In this subsection the following were mentioned: gender-inclusive practices through sports, handicrafts, and other activities, opportunities for girls to participate and express their opinion and programs that strengthen their self-esteem. The citation illustrated that most teachers work seriously to promote them, but also that not always the implementation works out well enough.

4.2 Ethnocultural inclusive practices

Inclusive education means real learning opportunities for groups who have traditionally been excluded such as minority language speakers. Due to the history of the predominance of Spanish over the indigenous languages in Mexico, this section focuses on the linguistic aspect, traditions and cultural aspects incorporated into educational practices in the rural areas of the Yucatan peninsula.
Concerning knowledge of the Mayan language, two female teachers and one male teacher participating in this study do not speak it, in two cases because they taught more advanced groups, when the student was already familiar with the Spanish language. The other case is because the teacher worked with rural communities near urban centers where Spanish is used more frequently.

Regarding the linguistic coexistence between Mayan and Spanish in the classroom, the following was commented on:
"in preschool, we taught them Spanish, they only spoke Mayan [the students], that continued for the first year of primary level, the following year we were working with the children according to the syllabus, reading and math, when they moved on to more advanced grades where my wife was teaching, then it was only Spanish because she did not speak Mayan."
"in Dzununcan Mayan was spoken, but they knew Spanish, the Mayan children inverted the adjective with the noun, for example, they would say blue pants as it is done in English."
"mostly there were Mayan-speaking children, the children would say little words or things in Mayan language in the classroom where Spanish was the prevailing language but with their mothers the children spoke Mayan. It would be very complicated if as a teacher you do not know how to speak Mayan."
"in indigenous communities, they [the students] had to make an effort to speak Spanish, in the higher grades they had to speak Spanish, but they always tried to speak Mayan, as a teacher you spoke to them in Spanish and if they didn't understand you explained it to them in Mayan."
"spanish and Mayan were spoken, there are children who speak Spanish poorly and others who do speak it. Mayan is used to communicating with the parents, since we [the teachers] speak Mayan."
"not everyone spoke Spanish. First I gave my class in Spanish, then I gave the class in Mayan, one or another child would ask me what I wanted to say and I would tell them in Mayan, I would mix Mayan with Spanish."
"one of the duties was to teach Spanish to the children, when we had to speak to them in Mayan we spoke to them in Mayan, but we gave more importance to the Spanish language; we spoke to them in both languages, and we succeeded because at the end of the school year they already spoke a large part of Spanish."
"we had a linguistic exchange, they practiced Spanish and we practiced Mayan."

About school materials:
"the didactic materials were for indigenous children to learn Spanish."
"it was not a question of eliminating their mother tongue, but rather to facilitate the learning of the Spanish language through the textbooks."
"the linguistic coexistence between Mayan and Spanish in the classroom was simultaneous because in the rural communities they could only speak Mayan and little by little we taught them to speak Spanish, through books and writing, that is why the first year of primary school is very important, the children are like sponges."

As to whether the culture and history of the community were integrated into the learning process, it was commented on:
"yes, in the textbooks there were activities from other states and they were adapted to the context, now there is the Yucatan book, the purple one, more than ten years ago the Yucatan book came out, and the students study it in third grade".

"it was a subject about Yucatan, from the history of Yucatan to the present, the tradition, the typical costumes, the gastronomy, and the most important manifestations such as Chichén Itzá and Uxmal\textsuperscript{15}. There was an archaeologist who used to take the children to Uxmal, to the museums, once a year, the children did an activity related to their visit to Uxmal".

There were also contrary opinions: "the history of the Mayan culture was very well hidden by the ‘blue-blooded people’\textsuperscript{16}, the caste war\textsuperscript{17} was never talked about, sometimes notables of the community were mentioned, but the history of the population was never considered".

Regarding the integration of traditions and practices that they witnessed as rural teachers, they mentioned the use of the typical costume on Monday for the allegiance to the Mexican flag and the national hymn, the jarana\textsuperscript{18} dance in the school festivals, the Hanal Pixán to remember deceased family members in November and the Ch’a cháak, the ceremony to invoke the rain. A teacher commented: "they celebrate their religious beliefs, such as the presentation of the new fruit, the seed, the rain, the first harvest and to thank nature for the good, they celebrated the day of the light, the new fire, in the park they threw stones and set them on fire, all the families came out of their houses to see it".

Catholic traditions are deeply rooted among the Mayan population, such as the feast of the community’s saint, the guilds, and the torches on December twelve, the day on which the Virgin of Guadalupe is celebrated in Mexico. It was commented on in this regard:
"generally the cab drivers carried torches, and then you had to go by ‘rait’\textsuperscript{19} because there was no one to drive you to your house".
"on the feast of the Santo Cristo de Citilcún in Tekantó, the people carry the statue of the saint in the streets and that day the children did not go to class, all the people made a pilgrimage".

Concerning the role of the rural teacher in the community, it was commented that it was common for the villagers to visit them at night at the school, where the teachers stayed overnight, to talk about personal and community issues and in some cases to ask for advice. Professional life and personal life were merged, which was mentioned repeatedly by the participants:
"you feel appreciation and affection for the community members, and they towards the teacher, they are very noble and grateful people, and you take with you a great experience when you leave the community to move to another community, because you had the joy of sharing your knowledge with them".
"the teacher had a great role, to be a bilingual cultural promoter”.
"in the evenings the parents would go with the teacher to have coffee and talk”.
"once or twice a week the parents would go to school at night, light a candle in the middle of the school to talk”.

\textsuperscript{15} Chichén Itzá and Uxmal are Maya archaeological sites.

\textsuperscript{16} Spaniards and children of Spaniards born in the region.

\textsuperscript{17} A social movement occurred in 1847 in which the Mayans revolted against the Spaniards due to the conditions of exploitation to which they had been subjected since colonial times.

\textsuperscript{18} Mayan dance.

\textsuperscript{19} It is a noun widely used in Mexico and means to be transported for free.
"a teacher was the doctor, the counselor, the support for the community leaders, the teachers would do the writing, the negotiations since they did not have the economic resources and we would do the paperwork so that the population would begin to grow. I had to help them process the construction of roads permission at the Secretariat of Communications and Transportation in Mexico (SCT) and the construction of a basketball court for the community".
"the children come to love you very much and they see you as their dad, there was a lot of respect for the students."

In this subsection the ethnocultural inclusive practices mentioned were the merge of Maya and Spanish language in the classroom, although based on the experience of the rural teachers as the students move to more advanced grades, they use Spanish more frequently. Cultural practices were integrated into the life of the community impacting the teaching practices. It was noted that rural teachers highly respect the customs, traditional dresses, dances and festivities observed by the population and they integrate indigenous knowledge in school activities.

4.3 Analysis of the results using CIT
This section will analyze the motivations, cognitions and resources of the rural teachers, community members and the SEN in Mexico to determine their influence on the degree of success in the implementation of inclusive educational practices. The knowledge from the interviews that have been described in the above sections has been complemented with knowledge from previous projects on Mayan girls’ education in the area53.

In CIT, motivations drive the actors’ actions; cognitions represent the subjective knowledge held to be true and resources provide the actors with the capacity to act and with power over other actors (figure one). These actor characteristics sit in and are influenced by several layers of context.

<table>
<thead>
<tr>
<th>Motivations</th>
<th>Resources</th>
<th>Cognitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural teachers</td>
<td>Income (+) Professional development (+) Willingness to live in the community (+/−)</td>
<td>Introduction of inclusive practices on their initiative (+)</td>
</tr>
</tbody>
</table>

Figure one. Process model with the actor characteristics used in CIT54.
<table>
<thead>
<tr>
<th>Community involvement (+)</th>
<th>Mayan-Spanish bilingualism (+/-)</th>
<th>Non-permanent position (−)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respect and love received by the pupils and most parents (+)</td>
<td>Time availability (+)</td>
<td></td>
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<tr>
<td>Influence on the rural community (+)</td>
<td>Knowledge of school curricula (+)</td>
<td></td>
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<tr>
<td>Respect for ethnocultural traditions (+)</td>
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### Community

<table>
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<tr>
<th>Education is a way to improve family income and status (+)</th>
<th>Poverty and marginalization (−)</th>
<th>Patriarchal traditions are gradually changing over time in favor of girls’ education (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls as a source of domestic work and caregiving (−)</td>
<td>Lack of education among most adults (−)</td>
<td>Societal norms to stay home if a girl gets pregnant or cohabits with a male partner (−)</td>
</tr>
<tr>
<td>Boys as a source of labor at an early age (−)</td>
<td>Lack of Internet access and basic services in the community (−)</td>
<td></td>
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<td></td>
<td>Domestic violence (−)</td>
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<td></td>
<td>Substance abuse (−)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maya-Catholic syncretism (+/−)</td>
<td></td>
</tr>
</tbody>
</table>

### National Educational System

<table>
<thead>
<tr>
<th>Promotion of national development through access to free education (+)</th>
<th>Facilities (+/-)</th>
<th>In the political discourse respect for cultural diversity and indigenous languages (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Books and didactic materials with gender and ethnocultural inclusive practices (+)</td>
<td>Spanish prevails over the Maya language (−)</td>
</tr>
<tr>
<td></td>
<td>Curricula (+/-)</td>
<td>Increase in Public Health Campaigns (+)</td>
</tr>
<tr>
<td></td>
<td>Rural Educators (+/-)</td>
<td></td>
</tr>
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<td></td>
<td>Scholarships (+)</td>
<td></td>
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<td></td>
<td>Preventive programs against gender violence (+)</td>
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<tr>
<td></td>
<td>Sexual education (+/-)</td>
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</tr>
</tbody>
</table>

Source: (Authors’ analysis).

The overview table shows the positive and negative factors affecting the success of inclusive educational practices in our study. The first level are the local teachers themselves. Overall the
picture is positive. There are however some weak spots. As we will see these are related to the next levels, the circumstances of the community and the educational system. The Mayan-Spanish bilingualism is sometimes insufficient while it is difficult to implement inclusive practices when not speaking Maya at all. However the emphasis on Spanish is required in the educational system. The willingness to live in the community and have a permanent position there is important to develop a strong role as facilitators of the development. However the limited resources of the community make many teachers seek other job opportunities after a while.

The limited resources the community are at the basis of some restrictive influences, somethings indirect, like the tendency to have girls do domestic work and care-giving instead of studying. That this is not just a matter of gender norms is demonstrated by the fact that also boys run the risk of being kept from school to help with work. Gender norms are most restrictive in the disapproval of girls studying while pregnant of living with a boyfriend.

The educational system has predominantly positive effects, though some might simply be not good enough. For instance the facilities granted to the schools are not always sufficient and the push for widespread sexual education is quite weak, while that could decrease the number of teen pregnancies. The predominant education in Spanish was already mentioned as a difficulty, especially in the early years of education. However, for pupils that successfully complete their studies it might be necessary, since extra educational and job opportunities all require being fluent in Spanish.

5. DISCUSSION

Although the purpose of this research was to determine the extent to which inclusive educational practices are applied concerning gender and culture and their impact on girls’ education, the teachers' responses revealed ambivalent results. While in official discourse the Mexican government promotes gender equality and the inclusion of indigenous knowledge through educational programs, teaching practices and textbooks, in reality the gender norms that prevail in the home determine what a girl should do, which does not always coincide with her schooling. Under Durkheim's theory, the role of society, mainly the family, in facilitating or hindering the educational advancement of girls through gender norms is emphasized.

On their initiative, the teachers promoted the practice of sports and activities in which both boys and girls participated, such as embroidery, softball and boxing, with the prior permission of the parents, which is in agreement with Floyd’s research, who establishes that teachers, as part of the community, can be promoters of equality in the classrooms.

Regarding the procedures related to school dropouts, teachers visit families to talk to parents to find out the reason for non-attendance; however, none of the cases had a prevention mechanism or written procedure authorized by the SEP to regulate what to do in these cases, although it was mentioned that the headteacher should be made aware of the situation. Another mechanism mentioned was the census, used to detect cases of non-enrolled children and as a means of inviting parents to enroll their children in school. Legal instances are not involved even though education is compulsory in Mexico even beyond basic education, as established in the third article of the Mexican Constitution.
Among the reasons for absenteeism, it was mentioned that the girls stayed home to help their mothers take care of their siblings, cook and clean the house. Although this study focuses on girls, the teachers commented that boys also drop out of school at the request of their fathers who take them to work in the fields (agricultural work). Fathers and sons work together from very early in the morning to support the family's income. Therefore, educational backwardness is a gender-differentiated problem that affects both boys and girls in this region.

In terms of programs to combat educational backwardness, adult schools or “night schools” were mentioned; however, these educational services are not always available in rural communities. If they are available, the woman who wants to attend must generally face restrictions established by her male partner. Here again, it was observed how the role of society affects the educational advancement of rural women.

The school is not only a space for addressing the curricula but also for promoting the holistic development of children, including topics of gender equality, sports, artistic activities, health campaigns, preventive programs on drug use and domestic violence, and sex education, among others. According to Reich's contributions in this regard, the school is the ideal place to address these issues, which contribute to the development of the child and the socioeconomic advancement of the country from the educational system.

Concerning preventive programs, that aim to decrease teenage pregnancy, domestic violence and substance abuse, it was mentioned that in recent years they have been more consistent in schools. However, in rural communities, their presence is more scarce since these preventive programs are mostly developed in urban centers although the rural population has a greater need for them due to the isolation of the villages.

Regarding sex education, strong resistance from parents was mentioned although it is a relevant health issue to be addressed for reaching higher levels of education. Many parents believe that addressing sex education encourages children to have experiences at an early age. If these topics are taught, girls are separated from boys and a female teacher or health sector personnel discusses them in the classroom only with the girls. It was also mentioned that sex education is the responsibility of the parents.

In this regard, research in other contexts has shown that if due to cultural or religious reasons, sex education is not addressed at home or in schools, the information children receive is incomplete and mostly wrong, which leads to early unions, teenage pregnancy and the spread of venereal diseases, to mention some of the consequences.

Child marriage is still prevalent in rural indigenous communities and in the case of school-age pregnancies, girls stop attending school. In the case of girls having their period, there are not always sanitary pads or water available, since latrines prevail in rural schools.

At present, the marriage is legal at 18 years of age in Mexico.
Regarding ensuring the full and effective participation of girls in the classroom and equal opportunities for them to voice their opinion, it was mentioned that currently, girls are more expressive because of the influence of social media, which was not the case before the Internet. Girls were shy and not very participative in rural schools.

On the integration of cultural practices and traditions, teachers commented that the children were gradually being taught Spanish so that by the end of primary school they were able to communicate in both languages, Mayan and Spanish. The *General Directorate of Indigenous, Intercultural and Bilingual Education* (DGEIIB by its acronym in Spanish) of the SEP promotes a comprehensive policy of intercultural indigenous education integrating the knowledge, cultural practices and the valuation of cultural and linguistic diversity in the classroom through its pedagogical and didactic approach in basic education56. However, the evaluations conducted on this policy have shown that there are deficiencies in its implementation and development35.

Currently, didactic materials are integrated with an indigenous and intercultural education orientation where the culture and history of the community are included, and the caste war is mentioned, although in a limited way52. In practice, the popular traditions of the region, both Mayan and Catholic, are interrelated with a strong syncretism between them.

As it has been previously demonstrated30, the teacher is a community leader who, if there is a good relationship with the political leaders in rural communities, could support development, particularly in infrastructure and health campaigns.

The personal and professional life in rural populations is related, the rural teachers are an active part of the community and their participation is expected beyond the teaching practice. However, the excessive turnover of rural teachers does not allow the establishment of bonds of trust among the population. One of the solutions to this problem is the rooting program, which allows full integration of the rural teacher with the community based on consistency. The constant presence strengthens the bonds of trust between the rural teacher and the villagers, allowing a more complete understanding of the educational needs of the students.

6. CONCLUSIONS
The purpose of this research was to establish which inclusive educational practices are implemented to promote the educational advancement of Mayan girls living in rural communities. From the beginning it was clear that this is not a problem exclusive to girls, it has strong implications for boys as well. The high rates of poverty that prevail in these communities cause parents to interrupt their children's education to support the family income and in the case of daughters to help with household chores.

Mention of deficiencies was another constant during the investigation, such as the lack of public services, bathrooms without water, and programs against educational backwardness available outside the community. Gender norms prevail, which still impede the educational development of women, especially when they are already living with a partner. However, progress has been made in recent years with the promotion of sex education in the classroom and campaigns against substance abuse leading to gender-based violence. Girls are now more participative and self-
confident, according to teachers' testimonies. There is also greater parental support based on future economic gain for the family.

In terms of ethnocultural inclusion, indigenous education policies recognize and value the cultural and linguistic diversity of the country. Educational materials have already been developed with a focus on indigenous and intercultural education in the Yucatecan Maya language. However, teaching practices are not always aligned with current educational policies.

Even with the advances presented in this research, it is necessary to strengthen public policies on indigenous education with the experience of rural teachers, since they know the barriers that the population faces. It is required to increase scholarship coverage to ensure that poverty, the main cause of school dropout in Mexico, does not force children to work at an early age impeding their educational advancement and better life opportunities. It is also important to improve basic services from water sanitation to information technology and communications to reduce the educational gap between rural and urban contexts and promote a greater understanding of the value of women in the family and their contribution to society. Based on this research that would be the proposal.

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