

## Inclusive Practices In The Two Shifts Of A Technological Baccalaureate In The City Of Los Mochis, Sinaloa.

Sara Lourdes Escalante Almada<sup>1</sup>, Patricia Quiñonez Osobampo<sup>1</sup>.

Carmen Lizeth Rosas Renteria<sup>1</sup>. Guillermina Diaz Gonzalez<sup>2</sup>.

Ana Erendira Tlapa Mendoza<sup>1</sup>

*Centro De Bachillerato Tecnológico Industrial Y De Servicios 43, Los Mochis, México.*

*Universidad Autonoma De Occidente, Unidad Culiacan, México.*

---

### **Abstract:**

**Background:** It is essential that both educational authorities and teachers form an inclusive education model for Higher Secondary Education schools, regardless of the shift, a model that seeks to support and motivate the student, considering the different learning styles and making adjustments to the content, methodology and evaluation when necessary. It is essential that both educational authorities and teachers form an inclusive education model for Higher Secondary Education schools, regardless of the shift, a model that seeks to support and motivate the student, considering the different learning styles and making adjustments to the content, methodology and evaluation when necessary.

**Materials and Methods:** To achieve the objectives of this research, the Inclusive Practices Questionnaire in Higher Secondary Education was used. The method used in the research is the deductive method since a series of processes are followed that lead to a direct conclusion, when the premises are true and the deductive reasoning is valid, there being no way for the conclusion to be false, since its function is to infer new knowledge or laws not yet known. Once the sample size calculation was obtained, the application of 200 questionnaires was determined, 100 belonging to the morning shift and 100 to the afternoon shift. The type of sample was non-probabilistic, since students who were in the IV semester were selected so that they met the following characteristic of the research: Knowing the functioning of the school and therefore the majority of the teachers, since they had completed three semesters at the institution.

**Results:** Since SPSS was used in the comparison of means, the mean value of the afternoon shift is greater than the mean value of the morning shift, confirming that more inclusive practices are carried out in the afternoon shift than in the morning shift, thus approving the research hypothesis: In the afternoon shift of the high school under study in Los Mochis Sinaloa, more inclusive practices are carried out than in the morning shift.

**Conclusion:** The present investigation focused on answering the question: in the afternoon shift of the Baccalaureate, are more inclusive practices carried out than in the morning shift? The results obtained demonstrate that it is necessary to work more so that the education received by high school students is increasingly more inclusive, thereby avoiding discrimination and offering quality education with dignified and equitable treatment for all.

**Key Word:** Inclusion, High School. GEPIA. Inclusive School.

---

Date of Submission: 13-01-2026

Date of Acceptance: 23-01-2026

---

### **I. Introduction**

Among the great challenges facing education today is achieving inclusive education. The Mexican Educational System has presented throughout these years, the concern to adopt revealing alternatives in the field of inclusion that other countries promote, this educational atmosphere that the country has welcomed has not had the expected progress, since it is not easy to carry out programs such as Strengthening Special Education and Educational Integration and transform people's points of view, ideas, etc., this, without considering that the reforms applied in a country are not always the most appropriate.

It is essential that both educational authorities and teachers form an inclusive education model for Higher Secondary Education schools, regardless of the shift, a model that seeks to support and motivate the student, considering the different learning styles and making adjustments to the content, methodology and evaluation when necessary.

In the last modification made to the Political Constitution of the United Mexican States (2012)<sup>1</sup> regarding Higher Secondary Education, article 31 states that it is the responsibility of parents to have their children attend public or private schools to obtain this post-basic education. Basic Education has invariably been prioritized,

without giving its due importance to Higher Secondary Education, as can be seen with the number of reforms that basic education has undergone.

Although the Glossary of Special Education (2012)<sup>2</sup> of the National Program for Strengthening Special Education and Educational Integration and the Glossary of Terms on Disability do not contemplate the term inclusive practices because it is recent, it is considered important to refer to them, since it is necessary to emphasize that both the institution and the teachers must collaborate in the development and promotion of mechanisms to analyze their own educational practices.

In the 2010-2011 Report on Higher Secondary Education in Mexico, reference is made to UNESCO (2010)<sup>3</sup>, highlighting that education is a key axis of development that contributes to reconciling growth, equity and participation in society. Mexico has been experiencing years of profound transformation, as mentioned by the Ministry of Public Education (2010)<sup>4</sup>, when referring to the fact that at this time space is being given to an education that is breaking down learning barriers and is promoting social participation in Mexico and without a doubt among the most favored concepts are discrimination and exclusion in the classroom.

### **Problem statement**

The General Directorate of Industrial Technological Education (DGETI) is a department attached to the Undersecretariat of Higher Secondary Education (SEMS), dependent, in turn, on the Secretariat of Public Education that offers the educational service of the technological upper secondary level. On April 16, 1971, the presidential agreement was published in the Official Gazette of the Federation, modifying the administrative organic structure of the Ministry of Public Education and giving way to the creation of the General Directorate of Industrial Technological Education (DGETI). This is the largest technological upper secondary education institution in the country, and whose mission is to train citizens with the skills, knowledge and attitudes required to promote and participate in a knowledge society, both in the work and social spheres (SEP, 2012)<sup>5</sup>.

The present research was developed at the Industrial and Services Technological Baccalaureate Center No. 43, located in the city of Los Mochis Sinaloa, which currently has a total of 2,007 students enrolled in both shifts with a staff of 89 teachers and a total of 55 workers in the administrative area, forming a total of 144 workers. The specialties taught are: Technological Baccalaureate in Accounting. Technological Baccalaureate in Mechatronics. Technological Baccalaureate in Industrial Food Production and Technological Baccalaureate in Programming in both shifts. Therefore, this research sought to determine if teachers in the afternoon shift carry out more inclusive practices towards their students than in the morning shift.

With the results, the aim is to raise awareness among managers about the difference in inclusive practices that are carried out in each of the shifts, with the purpose of promoting a program dedicated to improving inclusive practices on campus.

This research will directly benefit managers and teachers of Higher Secondary Education in the theoretical aspects that determine the relationship between education and inclusion, having the effect of inclusive practices. The research question was: in the afternoon shift of the Technological, Industrial and Services Baccalaureate Center No. 43, are more inclusive practices carried out than in the morning shift?

The indirect beneficiaries are the students, who are the most affected if the failure to carry out inclusive practices is considered a barrier to their learning.

All of the above will tend to favor the improvement and/or development of inclusive practices in Higher Secondary Education schools, whatever the turn. Therefore, the hypothesis was: In the afternoon shift of the Industrial and Services Baccalaureate Center No. 43 of Los Mochis Sinaloa, more inclusive practices are carried out than in the morning shift.

## **II. Material And Methods**

To obtain valid results it is necessary to have an adequate methodological foundation. In this case, the research was carried out during the 2024-2025 school year in the city of Los Mochis Sinaloa, on the CBTIS No. 43 campus, with students who were in the IV semester.

Due to the characteristics of the method used, it is considered research with a quantitative approach, as stated by Hernández, Fernández and Baptista (2003)<sup>6</sup>, describing it as a method that uses data collection to test a hypothesis based on numerical measurement and statistical analysis to establish behavioral patterns.

Quantitative research aims to generalize the results found in a group or segment (sample) to a larger community (universe or population). It is also sought that the studies carried out can be replicated. If this process is followed, the data generated have the standards of validity and reliability, and the conclusions derived will contribute to the generation of knowledge (Hernández, Fernández and Baptista, 2014)<sup>7</sup>.

Because the data were collected at a single point in time, this research is considered cross-sectional. Due to the type of research design, it was non-experimental, because the situations are observed as they are to be analyzed.

The method used in the research is the deductive method since a series of processes are followed that lead to a direct conclusion, when the premises are true and the deductive reasoning is valid, there being no way for the conclusion to be false, since its function is to infer new knowledge or laws not yet known.

### **Population and sample**

The present investigation was carried out in Los Mochis Sinaloa, at the Higher Secondary Education level, specifically on the campus of the Technological, Industrial and Services Baccalaureate Center No. 43, whose total population of both shifts is 2,007 students.

The sample size was determined statistically with a confidence level of 90% and a sampling error of 10%. The calculation of the sample size is one of the aspects to be specified in the previous phases of the research and determines the degree of credibility that will be granted to the results obtained.

According to Hernández, Fernández and Baptista (2014b)<sup>7</sup>, a validated formula that guides the calculation of the sample size is the following:

$$n = \frac{N \cdot (Z\alpha)^2 \cdot p \cdot q}{e^2 \cdot (N - 1) + (Z\alpha)^2 \cdot p \cdot q}$$

Where:

N = Bimonthly population.

e = maximum allowed error.

Z = (1 - α) = Confidence level.

p = probability that the answer is positive.

By clearing the formula, the minimum number of questionnaires that should be applied for the present study is specified: 194. Once the sample size calculation was obtained, the application of 200 questionnaires was determined, 100 belonging to the morning shift and 100 to the afternoon shift.

The type of sample was non-probabilistic, since students who were in the IV semester were selected so that they met the following characteristic of the research: Knowing the functioning of the school and therefore the majority of the teachers, since they had completed three semesters at the institution

### **Instruments**

To achieve the objectives of this research, the Inclusive Practices Questionnaire in Higher Secondary Education was used.

The purpose of which was to collect information about the inclusive practices carried out on campus. Regarding the advantages of this instrument, Jiménez, García and González (2006)<sup>8</sup> state that the questionnaire requires less effort on the part of the respondents, limits the responses of the sample, is easy to fill out, keeps the subject on the topic, is relatively objective and finally, is easy to classify and analyze, which is why it is considered an adequate or more relevant instrument for the development of research in the field of social sciences, as is the case with this instrument. Objectivity was met, since, due to the very characteristics of the questionnaire, any risk of subjective interpretation was avoided. It also met the validity of the measurement instrument because it quantified in a revealing and significant way the objective for which it was designed.

The Inclusive Practices in Higher Secondary Education Questionnaire consists of the following parts:

I) General Data. The age and shift in which the student was recorded. The name was not recorded so that the student could trust the anonymity of their responses.

II) Data on teachers. Whether or not teachers carry out inclusive practices in the classroom is explored, consisting of 38 questions.

III) Data about the campus. It explores whether inclusive practices are carried out on campus, consisting of 12 questions.

Data collection was carried out by visiting the groups where the selected subjects who responded in a self-administered manner to the inclusive practices questionnaire of upper secondary education were located at different times.

### **Data Processing.**

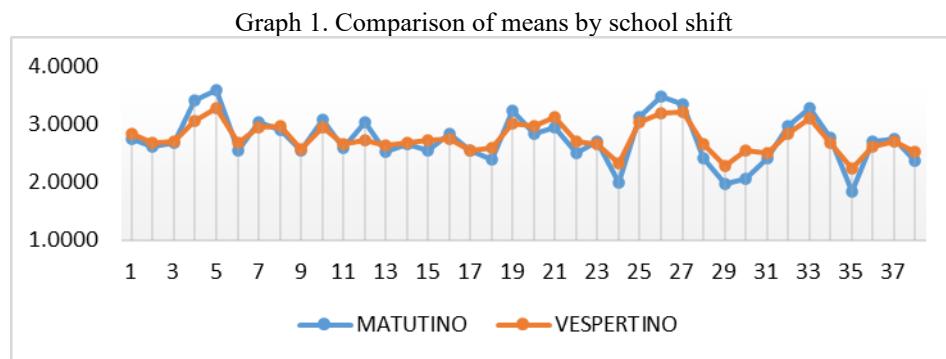
To process the data, the Excel program was initially used to construct a general table of the results obtained for each of the questions of the instrument, then it was imported into the statistical package IBM SPSS Statistics 27 (2020)<sup>9</sup> for Windows with which the statistical analysis of the study was carried out.

### III. Result

The student t test was applied to compare means of independent samples, in this case of the morning shift and the afternoon shift.

The objective of this test is to evaluate whether two groups differ significantly from each other, in this case to know the difference in inclusive practices between students from two different shifts. The highest value is the one with the greatest validity.

An analysis of means is carried out for each question about teachers and a comparison of means by school shift, as shown in graph 1.



When comparing the means between the morning and afternoon shifts, it is observed that the afternoon shift has a more stable trend, contrary to the morning shift where increases and falls are observed in the means of certain questions, and it can then be considered that the afternoon shift presents more inclusive practices than the morning shift. Subsequently, the statistical analysis was carried out, with the results shown in Table 1.

Table 1. Results of doing the student T test.					
Samples	C	N	Mean	Standard deviation	Mean standard error
	Morning	3800	2,7400	,87808	,01424
	Evening	3800	2,7571	,85248	,01383

Since the SPSS has been used, in the comparison of means, the value of the mean of the afternoon shift is higher than the value of the mean of the morning shift, it is confirmed that in the afternoon shift there are more inclusive practices than in the morning shift, therefore, the research hypothesis is approved: In the afternoon shift of the Industrial and Services Baccalaureate Center No. 43 of Los Mochis Sinaloa, more inclusive practices are carried out than in the shift. morning

### IV. Discussion

It is evident that when a favorable environment exists on a campus, the actors involved will enjoy a successful teaching-learning process, responding to the diversity of those involved; According to Booth and Ainscow (2002)<sup>10</sup>, the Inclusion Index defines this type of school as an inclusive culture focused on creating a safe, welcoming, collaborative and stimulating community in which everyone is valued, as the primary foundation for all students to have the highest levels of achievement. This without leaving aside the fact that inclusive values and practices must be shared by everyone: teachers, students, director, parents, etc. On the other hand, if favorable practices are not followed in the workplace, this will be reflected on both students and workers. In the school under study, certain inclusive practices are carried out in both shifts, but more effort is required on the part of the teaching staff, considering that today there is a need for competent, but mainly human, teachers in schools, the first to ensure the academic situation and the second so that the teacher with sensitivity can address important aspects in the student's life, and thus offer an education for everyone without exception. One of the main figures in the inclusive school are the teachers, and the school institution, León and Arjona (2011)<sup>11</sup> cite Ainscow (2002) who maintains that those in charge of educational institutions must be able to work together and motivated to investigate various aspects of their practice with the idea of perfecting it.

In this research it was found that there is a relationship between teachers and inclusive practices regardless of the shift and that there are barriers to achieving inclusive education; Very similar to what was found by Serrano K and Ontiveros V (2023),<sup>12</sup> they found that there is a relationship in the development of inclusive practices of upper secondary education teachers with the sociodemographic variables (staff, sex, age, major, highest degree of education, years of service, activities on campus) and that there are still limitations in teaching practice that can make it difficult to achieve quality inclusive education although their research was in a single shift.

Elvira C., Méndez M. and Auces M. (2021)<sup>13</sup> conducted research in a public high school in the state of San Luis Potosi, interviewing teachers, director and students and the psychologist from the psychopedagogy department. Their results indicate that it is necessary to support the training of teachers in an inclusive vision of education to influence the development of inclusive practices in the institution; very similar to what was found in this research where it is of great importance to promote the training and training of teachers in the field of educational inclusion, to provide additional resources and support, and to promote an inclusive and respectful school environment to overcome these limitations and achieve educational inclusion in Higher Secondary Education.

## **V. Conclusion**

The present investigation focused on answering the question: in the afternoon shift of the Technological, Industrial and Services Baccalaureate Center No. 43, are more inclusive practices carried out than in the morning shift? being able to issue a response to that scientific concern from it. The proposed methodology allowed us to meet the general objective of identifying whether more inclusive practices are carried out in the afternoon shift at the Industrial and Services Baccalaureate Center No. 43 in Los Mochis Sinaloa than in the morning shift. The results obtained demonstrate that it is necessary to work more so that the education received by high school students is increasingly more inclusive, thereby avoiding discrimination and offering quality education with dignified and equitable treatment for all.

In this sense, it is imminent that within the institution it is analyzed whether the practices carried out have characteristics of being inclusive or if these become barriers to learning and participation for students.

The responsibility for inclusive practices not only falls on the teacher, but also on the administrative staff with whom the young person has a relationship: secretaries, mayors, prefects, directors, etc.

It is interesting that since the same teachers work in both shifts, it is in one of them where more inclusive practices are carried out, when it is assumed that if they are the same teachers, the inclusive practices should be the same both in the morning and in the afternoon; Therefore, it can be concluded that inclusion does not depend exclusively on teachers, but also influences the school climate managed on campus, since in the morning, both students, parents and managers are more aware of the teachers' academic performance than in the afternoon shift, which could cause a situation of pressure on them that modifies their educational practice, making it less inclusive.

## **References**

- [1]. Constitución Política De Los Estados Unidos Mexicanos. (2012, 9 De Febrero). Diario Oficial De La Federación. [Www.Diputados.Gob.Mx](http://Www.Diputados.Gob.Mx)
- [2]. Secretaría De Educación Pública, Programa Nacional De Fortalecimiento De La Educación Especial Y De La Integración Educativa. (2012). Glosario De Educación Especial. [Https://Educacioneespecial.Sep.Gob.Mx/](https://Educacioneespecial.Sep.Gob.Mx/)
- [3]. Asociación Nacional De Universidades E Instituciones De Educación Superior (ANUIES). (2011). La Educación Media Superior En México: Informe 2010-2011. México: ANUIES. Recuperado De [Http://Publicaciones.Anuies.Mx/Biblioteca-Cises/657/La-Educacion-Media-Superior-En- Mexico-Informe-2010-2011](http://Publicaciones.Anuies.Mx/Biblioteca-Cises/657/La-Educacion-Media-Superior-En- Mexico-Informe-2010-2011)
- [4]. Secretaría De Educación Pública. (2010). Política Educativa En México: Inclusión Y Participación Social. SEP. [Https://Www.Sep.Gob.Mx](https://Www.Sep.Gob.Mx) [Https://Www.Gob.Mx/Sep/Acciones-Y-Programas/Inclusion-Y-Equidad-178423](https://Www.Gob.Mx/Sep/Acciones-Y-Programas/Inclusion-Y-Equidad-178423)
- [5]. Secretaría De Educación Pública. (2012). Dirección General De Educación Tecnológica Industrial. México: SEP. Recuperado De [Https://Dgeti.Sep.Gob.Mx/](https://Dgeti.Sep.Gob.Mx/)
- [6]. Hernández Sampieri, R., Fernández Collado, C., & Baptista Lucio, P. (2003). Metodología De La Investigación (3<sup>a</sup> Ed.). México: McGraw-Hill Interamericana.
- [7]. Hernández Sampieri, R., Fernández Collado, C., & Baptista Lucio, P. (2014). Metodología De La Investigación (6<sup>a</sup> Ed.). México: McGraw-Hill Education.
- [8]. Jiménez, J., García, J., Y González, F. (2006). Guía Técnica Para La Construcción De Cuestionarios. México: Centro Interdisciplinario De Investigación Y Docencia En Educación Técnica (CIIDET). Recuperado El 25 De Enero De 2025: [Http://Www.Odiseo.Com.Mx/2006/01/Casas\\_Garcia\\_Gonzalez-Guia.Htm](Http://Www.Odiseo.Com.Mx/2006/01/Casas_Garcia_Gonzalez-Guia.Htm)
- [9]. IBM Corp. (2020). IBM SPSS Statistics For Window (Version 27.0) [ Software Informatico]. Armonk, NY: IBM Corp.
- [10]. Booth Y Ainscow (2002). Guía Para La Evaluación Y Mejora De La Educación Inclusiva: Desarrollando El Aprendizaje Y La Participación En Las Escuelas. (2a Edición Revisada). CSIE; UNESCO.
- [11]. León, M. Y Arjona, Y. (2011). PASOS HACIA LA INCLUSIÓN ESCOLAR EN LOS CENTROS DE EDUCACIÓN SECUNDARIA OBLIGATORIA. España: Universidad De Granada. Recuperado El 2 De Marzo De 2025 En: <Www.Usc.Es/Revistas/Index.Php/le/Article/Download/34/151>
- [12]. Serrano, K., & Ontiveros, V. (2023). Relación Entre El Desarrollo De Prácticas Inclusivas De Docentes De Educación Media Superior Y Variables Sociodemográficas. Revista De Educación Inclusiva, 12(2), 45–60. Recuperado De <Https://Revistaeducacioninclusiva.Es/>
- [13]. Elvira C., Méndez M. Y Auces M. (2017). Prácticas Docentes Inclusivas En El Nivel Medio Superior. Consejo Mexicano De Investigación Educativa. <Https://Comie.Org.Mx> Memoriaelectronica.