MLS - INCLUSION AND SOCIETY MAGAZINE

https://www.mlsjournals.com/MLS-Inclusion-Society

Inclusion and Society Journal

ISSN: 2794-087X

How to cite this article:

Merino, A. (2023). Neurometodología y formación docente: metodologías inclusivas emergentes. *MLS Inclusion and Society JournaL*, 3(1), 84-95. doi: 10.56047/mlsisj.v3i1.2155

NEUROMETHODOLOGY AND TEACHER TRAINING: EMERGING INCLUSIVE METHODOLOGIES

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Abstract. The main objective of this exploration is to analyze the relationship between teacher training and the new inclusive methodologies with the neuromethodology of school education. Therefore, a literature review was carried out, with a correlational research design and the methodology used was qualitative and quantitative; the research paradigm followed was interpretative, the contextualization of Jaén capital, which is where the population and sample were extracted, the research problem to be solved is: What is the relationship between neuromethodology, teacher training and emerging inclusive methodologies? The results show that the median values are 4,000 each. Therefore, respondents intuitively reported the mean value of the variable. Even in this activity the idea of distraction arises in a simple way. Whether per run or 50 median cases, the 50 median cases occur at intervals (4-5), and greater variation is observed in the real sequence with 40 runs, while in the simulated sequence there are 50 central cases. Decrease the value (3-4), the range is 50. In conclusion, the respondents adequately assess the value of the methodology as a training method, since most of them agree with its use. However, the variability in emerging methodologies is not recognized, as it is assumed to have greater variability than existing methodologies.

Key words: methodology, neuromethodology, inclusive emergent methodologies, training models.

NEUROMETODOLOGÍA Y FORMACIÓN DOCENTE: METODOLOGÍAS INCLUSIVAS EMERGENTES

Resumen. El objetivo principal de esta exploración, es analizar la relación entre la formación docente y las nuevas metodologías inclusivas con la neurometodología de la educación escolar Por lo tanto, se efectuó una revisión bibliográfica, con un diseño de investigación correlacional y la metodología utilizada ha sido cualitativa y cuantitativa; el paradigma de investigación seguido fue el interpretativo, la contextualización de Jaén capital, que es de donde se ha extraído la población y muestra, el problema de investigación a resolver es ¿Qué relación existe entre la neurometodología, la formación docente y las metodologías inclusivas emergentes?, entre los resultados destacan que los valores medianos son 4,000 cada uno. Por lo tanto, los encuestados informaron intuitivamente el valor medio de la variable. Incluso en esta actividad surge la idea de distracción de manera sencilla. Ya sea por corrida o por 50 casos medianos, los 50 casos medianos ocurren a intervalos (4-5), y se observa una mayor variación en la secuencia real con 40 corridas, mientras que en la secuencia simulada hay 50 casos centrales.

Disminuya el valor (3-4), el rango es de 50. Como conclusión, los encuestados valoran adecuadamente el valor de la metodología como método de formación, ya que la mayoría está de acuerdo con su uso. Sin embargo, no se reconoce la variabilidad en las metodologías emergentes, ya que se supone una mayor variabilidad que las existentes.

Palabras clave: metodología, neurometodología, metodologías emergentes inclusivas, modelos de formación.

Introduction

We live in a society immersed in technological development characterized by the free flow of communication and information. In such a condition, school is considered a place of communication, where group work, cooperation or collaboration are the main principles, so active learning methods should be used in the classroom, which favor communication among the students themselves. Methodology is a fundamental aspect of any research, and the field of education is no exception. In this sense, learning methodology, teaching methodology, emergent methodology and neuromethodology are areas of study that have received great importance in recent years.

Current educational forms demand teaching-learning methods that are compatible with the changes taking place in our country: social, cultural, economic, labor and technological. At a time when innovation cycles are shortening, educational institutions must be more versatile and flexible. Therefore, the information society needs not only content or skills information, but also process information, i.e., people must learn how to learn. The social and educational changes of recent years and decades require innovative teaching methods.

The methodology arises in accordance with the scientific development of science. For Yuni and Urbano (2020), it is a field of specialized knowledge that studies the methods used to generate "valid knowledge of the real world" (p.5); in addition, it implies the use of criteria of decision, order and gradualness of the way to proceed to achieve a purpose, build or justify new findings or scientific conclusions. In synthesis, it would be the set of techniques and experiments required for the demonstration of a hypothesis, or for the achievement of some goal.

In contrast to this, the methodology of participatory action research, according to Rodriguez (2020) has been awakening souls, feelings, communities and renewed participation in the field study of research, to "break the monopoly of knowledge" (p.3). According to this author, since 1946 with the works of Kurt Lewin, it began to go through important moments with Fals Borda (1974) and Elliot (1981) to validate itself in its own precepts rooted in the theory of complexity, becoming undisciplinary for being against disciplinary and parceled research; therefore, it insurges accompanied by the communities and in the context of epistemic crisis, it becomes a transcomplex decolonial project, "not to search for finished truths, but to build trans-epistemes, which can be rethought every time reality merits it"(p.5), this makes it dynamic, in constant innovation, renovation and socially relevant.

Regarding teaching methodology, Buils et al. (2022) state that being a teacher implies planning, recreating and transforming classroom practices using digital technologies and, at the same time, developing this competence in their students, dynamically providing learning opportunities. This will be possible, according to the cited authors, with the implementation of the Digital Education Action Plan: 2021-2027, designed by the European Commission, since its objectives include "enhancing the ability of teachers to use digital technologies skillfully, equitably and effectively" (p.135), to improve the quality of education.

From the students' perspective on the teaching methodology, there is also a research carried out by Chinche (2022), referring to the similarities granted by the students to them. Before approaching these contributions, the author points out that teaching methodology is not limited to techniques, strategies and instruments for measuring the educational process; it goes beyond that, as it encompasses, by the same daily contact with students, personal dimensions, since it is a person who responds according to the context; he/she also has the responsibility of educating others under diverse and changing situations and, therefore, must provide the most pertinent academic and personal responses.

Seen in this light, the author suggests that it is worthwhile to examine the meaning given by students to teaching methodologies, as this is a way of discovering the visible and invisible pedagogies of the educational process. The students revealed that it is necessary to consider them in the planning of contents, tasks and in all the pedagogical action, since they are the recipients of the successes and failures of the teaching-learning process. For this same reason, the educational process must be adjusted to the needs and possibilities of the students, in order to put an end to the passivity that prevails in class sessions and motivate them to rehearse, question and create new interpretations of the contents and not to wait for an expository class from the teacher. Chinche's research makes it clear that students are aware of their own educational process, of the role they play when a traditional teaching methodology is applied, and are capable of questioning it in order to generate some change.

For Espinoza (2022), teacher training should aim at the transformation of students in a comprehensive manner; but at the same time, it should contribute to professional training itself, since without it, little would be done. After the second half of the 20th century, the behaviorist or traditional training model was almost entirely relegated to give way to alternative models; according to Mosquera & Pérez (2022), training models have derived from approaches on meaningful learning by Ausubel (1983); by discovery, according to Bruner (1988); the situated model proposed by Lave & Wenger (1991); the expansive learning of Engentrom (2001); but they can also derive from national educational policies; and even, if considered within the framework of modernity and postmodernity, a long list of training models will also emerge, and it would be worthwhile to review the contributions of Lyotard (1987) and Harvey (1998), but the postmodern movement was articulated to everything that would come with technology and the globalization process.

what is expected from the relationship between methodology and training models? That there is coherence in the implementation of both and that the academic training intentions of citizens are clear, together with their planet and other forms of natural life. This is what it is all about, aiming towards an inclusive, respectful, autonomous, consensual, integral, ubiquitous and planetary education that responds to current social demands. Hence, innovative, emerging and current training models are holistic in nature. This perspective is shared by López et al. (2022) when they state that teacher training models require greater commitments from teachers to achieve a comprehensive education, in which there is harmony between methods, methodology, applied didactic strategies; in short, a corpus of theory and praxis consubstantiated with pedagogical practice.

Inclusive emerging methodologies focus on creating inclusive learning environments by combining emerging methodologies for students with special needs, so that the development of their learning will propel them to achieve educational objectives, develop effective social interactions, as well as their own personal development. Addressing diversity is a goal that, in Spanish legislation, has been bearing fruit since the Salamanca Declaration in 1994. More recently, according to González and Carrascal (2022), the 2030 Agenda includes among its goals "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (p.37).

To this end, the authors propose co-teaching, understood as the collaboration between two teaching professionals to address diversity. It consists of one teacher in general education and one teacher in space education to share responsibilities in the educational process. This type of emergent and inclusive methodology promotes recognition among professionals, they feel accompanied and share the concerns of the complex process of teaching students from diversity. The practice of this methodology also increases the number of didactic strategies employed in the classroom.

Inclusive methodologies are not only for students with special conditions, they are also necessary when migration processes occur and students need to be treated with equal rights, as well as to create an inclusive and respectful educational environment for all, whether they are natives or foreigners.

Neuromethodology has opened the way to other valid and relevant concepts in education, but it has also been found to be used inappropriately, with which care must be taken. According to Pherez, Vargas & Jerez (2019), research and data obtained from the confluence of cognitive psychology and pedagogy are creating a new scenario for teaching and learning called "neuroeducation", based on how the brain learns and how to stimulate it through pedagogical processes. It has been insisted that the teaching professional is called upon to familiarize himself with new knowledge, to appropriate and contribute to the learning of his students, since the issue now lies in the fact that, in addition to having to know how the brain works, he must consider methodological and pedagogical ways to enhance creativity in the compromise, in the choice of decisions, in the construction of relevant and innovative knowledge, among other processes.

According to the aforementioned authors, neuroscience has created a whole system that will have a positive impact on education, since, together with neuroeducation, there is the "neuroeducator", as a mediator between neuroscience and pedagogy; "neuromethodology", based on the fact that the brain learns progressively from the simple to the complex according to the age of the person, since it understands the world permanently through "perception, attention, thought, memory and language" (p. 151); "neurolearning", which involves learning with emotionality, especially using emotional intelligence; "neurodidactics", which articulates the student's skills with the functioning of the brain; and "neurolearning", which involves learning with emotionality, especially using emotional intelligence; "neurodidactics", which articulates the student's skills with the functioning of the brain; and "neuroassessment", which aims to excite brain neurons to produce "multisensory learning" (p.152).

From this perspective, reflections derived from pedagogical experiences around specific cases emerge, as an example: distraction in the classroom, a behavioral attitude so common in many students is associated with neurocerebral functioning, because attention in the course of content acquisition is key to stimulate the brain; according to Doardi & Limiñani (2020), attention allows filtering the information of interest, thanks to this "nervous excitement is kept in short-term memory" (p. 24) and will be the basis that will concatenate other long-term stimuli, generating the interest of the learner. 24) and it will be the basis that will concatenate other stimuli in the long term, generating the interest of the learner. otherwise, the student will

fix his interest in other situations, also valid because it is the development of attention; but, what is sought is attention in school learning. With these studies, the distraction of children in the classroom can be addressed, not as a behavioral problem, but from the understanding of the brain and an appropriate neuromethodology.

It is worth noting that the teacher can stimulate attention in other extracurricular environments, but always with an educational, integrating and positive growth purpose for the students. According to Casasola (2022), "learning is processed in the brain" (p.9), consolidating the memory progressively until it creates a data bank or storage that will be used throughout life and according to the situations that the person will experience.

The educator's challenge lies in creating neuromethodological strategies with which to help stimulate the brain to produce meaningful learning; it turns out that the brain-learning link is a reciprocal process, on the one hand, memory is the result of the learning process, and on the other, learning modifies the neuronal synapses, constantly stimulating the brain to produce intentional learning. This dialectical relationship is known as neuroplasticity, by which the brain learns to modify its behavior through active learning and manages to produce new neurons, this is called neurogenesis, which so far has no age limits to produce them; hence it is especially interesting its application in the educational field from early stages to university.

An interesting contribution on neuromethodology is provided by Quílez (2019), when he explains that physical exercise is a great stimulator of the prefrontal lobe where executive functions such as decision making, attention, planning, among others, are developed. He adds that the natural state of man is to be in motion, and that this has a decisive role in mental development.

Now, with the development of neuroscience, the approaches on psychomotor skills exposed by Piaget become more relevant, especially the one carried out in Physical Education at school, since it has a strong impact on the development of logical-mathematical thinking, the student's emotional state, long-term memory, among other benefits. For these reasons, education in the sports field should be aimed at visual, auditory, tactile and balance stimulation, which would enhance the processes of attention, verbal and auditory memory, among others.

The referenced author also explains that research on the functioning of the brain, the methodologies associated with this and the participants in the educational act, are pointing towards the protagonism of parents, in a new way of seeing the education of their children and the ways to participate. The bond between parents and children is both biological and emotional, since humans are the most dependent species in the animal kingdom. From this natural genesis, spouses can support their children by understanding how the brain works and making better use of the interests they show. However, neuromethodology is not only implemented in primary school students; it also has scope at the university level because the brain always learns and can be trained to do so.

In this regard, Tacca, Tacca & Alva (2019), propose three principles for this type of methodology: "interaction, balance and holistic vision" (p.17), the first being the result of the active state of all sensory resources for learning, since true interactions are generated. Balance would be achieved by activating both hemispheres through the selection of didactic contents that involve analysis and metaphors; finally, the holistic vision would be produced when the students' attitudes are valued, enhancing self-esteem, multiple intelligences, affective processes and learning for life development.

Warnings are not superfluous when dealing with new terms in the scientific field, since the use and abuse of the term neuroscience and its derivations can lead to erroneous or self-interested interpretations. Cumpa (2019), has been dedicated to investigate in the Scielo database of scientific articles, how this term has been used with relevance and other times in a not very assertive way to conceptualize the field of action of the same.

In this order, Cumpa (2019) points out that the term has been used to propose programs of "dubious scientific quality" (p.34) for example neuroastrology, neuromagic, among others. Within this broad review, the neuromethodology associated with neuroeducation registered a broad scientific relevance since it deals with the interconnection between "the biology of the central nervous system, cultural stimuli and pedagogical strategies" (p.35). After all, it has been proven that there is a connection between the brain, the ways it learns and the educational stimuli it receives.

Method

The design followed in this research is non-experimental, descriptive, explanatory and correlational. The interpretive paradigm has been followed. In accordance with the proposed objectives and this research, our geographical context is based on a province of the Autonomous Community of Andalusia, in particular, Jaén. It has ninety-seven municipalities. It is going to be carried out to active and non-active teachers of these municipalities and also to the fourth year teachers of the Degree in Primary Education of the University of Jaén.

In accordance with the above, the members we have surveyed belong to the province of Andalusia. It should be noted that this leads to a very limited selection, due to the fact that not many teachers from each province have answered and that these teachers do not only belong to the province of Jaén but also come from outside the province. It is also important to point out that the results may be more enriching since they are not only from Jaén. This means that its validity is not useful to carry out an exploration at regional or even national level.

Sampling was carried out using the probability sampling technique used in sampling, which was simple random. Otzen, T. and Manterola C (2017,) commented that this method ensures that the population has equal chances of being included in the mentioned sample, this means that the probability of choosing subject "x" does not depend on the probability that other subjects belong to the target group. The population of this research is the practicing and non-practicing teachers (active and non-active) of the province of Jaén and the fourth year students of Primary Education of the University of Jaén, the sample has been carried out by convenience. The students are fourth year undergraduate students of Primary Education and belong to the University of Jaén, have an average age of 23 years, are male and female. The number of teachers (from the whole province of Jaén) is 10,532, and the sample is 61. The number of students (4th year of primary education) is 300, and the sample is 30.

The research problem is: what is the relationship between neuromethodology, teacher training and emerging inclusive methodologies, the hypotheses: H0.- There is no relationship between teacher training and emerging inclusive methodologies with neuromethodology. H1.- There is a relationship between teacher training and emerging inclusive methodologies with neuromethodology. Independent variables: Training models, inclusive emerging methodologies, and teaching methodologies. Dependent variables: Neuromethodology. The

research dimensions are: Methodology, Teaching Methodology, Training Models, Inclusive Emerging Methodologies and Neuromethodology.

As for the instruments and data collection process, the Likert scale was used. The parts we have used for the elaboration of this scale have been the following: Bibliographic review of the topics to be investigated, selection of dimensions, battery of items, item forms for each dimension and focus group. It has an operationalization table, which is answered with: strongly disagree (1), disagree (2), indifferent (3), agree (4), strongly agree (5). It is composed of five specific objectives, each with one dimension and five items for each dimension. Validation and reliability have been based on expert judgment. This is a method that serves to validate the instrument of the research carried out, for which a questionnaire has been carried out where all the proposed items are evaluated in order to observe their coherence. A pilot test was then carried out and the result was favorable. Reliability, as a criterion estimates Cronbach's alpha coefficients as: Coefficient alpha >.9 is excellent; Coefficient alpha >.8 is good; Coefficient alpha >.7 is acceptable; Coefficient alpha >.6 is questionable; Coefficient alpha >.5 is poor. The Cronbach's Alpha coefficient shows an excellent internal consistency of the set of 25 variables since it presents a value of $\alpha = .949$.

Results

Regarding Methodology. The total number of observations is 90 (89 valid and 1 lost). The mean is 3.3483 and the median is 4.0000, suggesting a distribution skewed to the left, as the median is greater than the mean. This is confirmed by the skewness of -0.492, indicating negative skewness. The kurtosis is -0.938, suggesting a relatively flat distribution compared to a l-norm distribution. The standard error of skewness is 0.255 and the standard error of kurtosis is 0.506. Overall, these data suggest that there is a concentration of higher values in the distribution, but there is also a significant amount of lower values. The distribution is relatively flat and skewed to the left.

In this second item, respondents were asked whether the methodology serves to achieve the goals planned in a scientific investigation. With the data provided, it can be seen that the total number of observations is 90 (89 valid and 1 lost). The mean is 4.2697 and the median is 4.0000, suggesting a distribution skewed to the right, as the median is smaller than the mean. This is confirmed by the skewness of -1.316, indicating negative skewness. In addition, the kurtosis is 3.404, suggesting a leptokurtic distribution (with a concentration of values in the center) compared to a normal distribution. The standard error of skewness is 0.255 and the standard error of kurtosis is 0.506. Overall, these data suggest that there is a concentration of higher values in the distribution, but there is also a significant amount of lower values. The distribution is leptokurtic and skewed to the right.

On Teaching Methodologies. In this item, the respondents were asked whether the teaching methodology stimulates the active knowledge of the student from the information search activities and their implementation in the classroom together with the presentation of the same. The mean of the distribution is 4.1236 and the median is 4.0000, suggesting a distribution skewed to the right, since the median is smaller than the mean. This is confirmed by the skewness of -1.476, indicating negative skewness. The kurtosis is 2.824, suggesting a leptokurtic distribution (with a concentration of values in the center) compared to a normal distribution. The standard error of skewness is 0.255 and the standard error of kurtosis is 0.506. Overall, these data suggest that there is a concentration of higher values in the distribution, but

there is also a significant amount of lower values. The distribution is leptokurtic and skewed to the right.

Respondents were also asked whether teaching methodologies help build meaningful knowledge for students to develop their own skills and abilities. The median of 5.0000 suggests that there are higher values in the distribution, which is confirmed by the skewness of -1.821, indicating a strong negative skewness. In addition, the kurtosis is 4.188, suggesting a highly leptokurtic distribution (with a concentration of values in the center) compared to a normal distribution. The standard error of skewness is 0.255 and the standard error of kurtosis is 0.506. Overall, these data suggest that there is a concentration of higher values in the distribution, but there is also a significant amount of lower values. The distribution is highly leptokurtic and skewed to the left.

About Training Models. In this item, respondents were asked whether training models involve considering the content to be taught, strategies, resources, methods, methodology and evaluation. A skewness of -1.404, indicating a negative skewness. In addition, the kurtosis is 3.770, suggesting a leptokurtic distribution (with a concentration of values in the center) compared to a normal distribution. The standard error of skewness is 0.255 and the standard error of kurtosis is 0.506. Overall, these data suggest that there is a concentration of higher values in the distribution, but there is also a significant amount of lower values. The distribution is leptokurtic and skewed to the left. The training models promote various dimensions of the human being. In this item, respondents were asked whether the training models promote various dimensions of the human being. Statistical analysis yielded a ratio of valid to missing numbers. We have 89 valid numbers and 1 missing number, which equals a ratio of 98.9% valid numbers. Then, we can analyze the measures of central tendency. The mean is 4.1236 and the median is 4, suggesting that the distribution may be somewhat skewed to the right. The skewness is -1.235, which confirms this hypothesis. In addition, the standard error of skewness is 0.255, indicating that the coefficient of skewness is statistically significant. As for kurtosis, we have a value of 2.955, suggesting a leptokurtic distribution, i.e., with a concentration of values at the mean and heavier than normal tails. The standard error of kurtosis is 0.506, indicating that the kurtosis coefficient is also statistically significant. In summary, the data appears to have a rightskewed and leptokurtic distribution, with a very high proportion of valid numbers and a single missing number.

About Neuromethodology. In this item, respondents were asked whether inclusive emerging methodologies are those that focus their attention on creating inclusive learning environments. It can be said that there are a total of 90 numbers, of which 89 are valid and 1 is missing. The sample mean is 4.1685, indicating that the average value of the numbers is close to 4.2. The median, which is the central value of the sample, is 4.0000, indicating that half of the numbers are less than or equal to 4 and the other half are greater than or equal to 4. Skewness is an indicator of the symmetry of the data distribution, and in this case, the skewness is -1.341, indicating that the distribution is skewed to the left. The standard error of skewness is 0.255, indicating that the measure of skewness is reliable. The kurtosis is an indicator of the shape of the data distribution, and in this case, the kurtosis is 1.867, indicating that the distribution is leptokurtic, i.e., it has a high peak and heavy tails. The kurtosis error is 0.506, which indicates that the kurtosis measure is reliable.

Inclusive start-ups are based on two fundamental principles: equity and integration. In this item, respondents were asked whether inclusive emerging methodologies are based on two fundamental principles: equity and integration. It can be said that there are a total of 90 numbers, of which 89 are valid and 1 is missing. The sample mean is 4.2022, indicating that the average

value of the numbers is close to 4.2. The median, which is the central value of the sample, is 4.0000, indicating that half of the numbers are less than or equal to 4 and the other half are greater than or equal to 4. Skewness is an indicator of the symmetry of the data distribution, and in this case, the skewness is -1.226, indicating that the distribution is skewed to the left. The standard error of skewness is 0.255, indicating that the measure of skewness is reliable. The kurtosis is an indicator of the shape of the data distribution, and in this case, the kurtosis is 1.602, indicating that the distribution is leptokurtic, i.e., it has a high peak and heavy tails. The standard error of kurtosis is 0.506, indicating that the kurtosis measure is reliable.

On Inclusive Emerging Methodologies. In this item, respondents were asked whether neuromethodology is a discipline that unites psychology, pedagogy and neuroscience. It can be said that there are a total of 90 numbers, of which 89 are valid and 1 is missing. The sample mean is 4.1573, indicating that the average value of the numbers is close to 4.2. The median, which is the central value of the sample, is 4.0000, indicating that half of the numbers are less than or equal to 4 and the other half are greater than or equal to 4. Skewness is an indicator of the symmetry of the data distribution, and in this case, the skewness is -0.741, indicating that the distribution is slightly skewed to the left. The standard error of skewness is 0.255, indicating that the measure of skewness is reliable. The kurtosis is an indicator of the shape of the data distribution, and in this case, the kurtosis is 0.419, indicating that the distribution is platykurtic, that is, it has a more flattened shape than a normal distribution. The standard error of kurtosis is 0.506, indicating that the kurtosis measure is reliable.

Neuromethodology serves to express the functioning of the brain while acquiring content. In this item, respondents were asked whether neuromethodology serves to express the functioning of the brain while acquiring content. It can be said that there are a total of 90 numbers, of which 89 are valid and 1 is missing. The sample mean is 4.1461, indicating that the average value of the numbers is close to 4.15. The median, which is the central value of the sample, is 4.0000, indicating that half of the numbers are less than or equal to 4 and the other half are greater than or equal to 4. Skewness is an indicator of the symmetry of the data distribution, and in this case, the skewness is -1.039, indicating that the distribution is skewed to the left. The standard error of skewness is 0.255, indicating that the measure of skewness is reliable. The kurtosis is an indicator of the shape of the data distribution, and in this case, the kurtosis is 1.699, indicating that the distribution is leptokurtic, i.e., it has a high peak and heavy tails. The standard error of kurtosis is 0.506, indicating that the kurtosis measure is reliable.

Discussion and conclusions

In the field of education, there are various methodologies used for learning, teaching and research. Learning methodology focuses on how students acquire knowledge and skills, while teaching methodology focuses on how teachers teach and facilitate learning.

Emerging Methodology, on the other hand, refers to new methodologies that emerge in response to changes in society and technology. These methods try to adapt to the needs of the learners and to new learning methods, such as online learning and project-based learning. In addition, neuromethodology is a methodology focused on studying the relationship between the brain and learning. This methodology uses neuroscience techniques to understand how the brain processes information and how it can improve the teaching process.

From the statistical analysis of the surveys, we obtained considerations regarding each type of methodology.

- Regarding Methodology in general, they said that it is a set of methods known to all; in addition, it serves to achieve the goals that are planned in a scientific investigation.
- As for the teaching methodology, it stimulates the active knowledge of the student from the activities of information search and its implementation in the classroom together with the exposition of the same. They help students build meaningful knowledge to develop their own skills and abilities.
- Of the training models, these involve considering the content to be taught, strategies, resources, methods, methodology and evaluation. They also promote various dimensions of the human being.
- Emerging inclusive methodologies are those that focus on creating inclusive learning environments and are based on two fundamental principles: equity and integration.
- Neuromethodology is a discipline that unites psychology, pedagogy and neuroscience. It serves to express the functioning of the brain while acquiring content.

In conclusion, the current forms of study require teaching-learning methods that are in line with the processes of change that are taking place in the social, cultural, economic, labor and technological spheres of our country. In the field of education there are various methodologies used for learning, teaching and research. The need to adapt to the new times of change with changes in the markets, in the organization of work, in technology and in the values of society demands a polyvalent, multifunctional and flexible training.

The general conclusion with respect to the answers given by the respondents and statistically analyzed is that they adequately assess the value of the methodology as a training method, since most of them agree with its use. However, variability in emerging methodologies is not recognized, as it is assumed to be more consistent than existing methodologies.

Among the limitations were the lack of economic resources and the time dedicated to each interviewee. Further research is needed, especially in the field of new technologies. With respect to the social context of the research, the members we have surveyed belong to the province of Andalusia. It is worth noting that this leads to a very limited selection, since not many teachers from each province answered and that these teachers do not belong only to the province of Jaén but also come from outside the province. It is also important to point out that the results may be more enriching since they are not only from Jaén. This means that its validity is not useful to carry out an exploration at regional or even national level.

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Date received: 07/05/2023 **Revision date:** 27/05/2023

Date of acceptance: 01/06/2023