

<https://doi.org/10.23913/ride.v11i22.891>

Artículos científicos

Instrumento “Aprendizajes básicos para el manejo emocional en niños y adolescentes”¹

Basic Learning for Emotional Management in Children and Adolescents Instrument (MENA)

Instrumento "Aprendizagem básica para manejo emocional em crianças e adolescentes"

Samana Vergara-Lope Tristán

Universidad Veracruzana, México

samanavergaralope@hotmail.com

<https://orcid.org/0000-0001-8029-3533>

Abigail Blancas Lumbreras

Universidad Veracruzana, México

abigail.bluv@gmail.com

<https://orcid.org/0000-0003-1990-1901>

Resumen

El manejo emocional, con diferentes acepciones y bajo diferentes enfoques, ha adquirido importancia en los últimos años dentro de las discusiones educativas y los currículos, pero la evaluación de este tema dentro del área de la educación está aún en etapas iniciales. Como parte del proyecto Medición Independiente de Aprendizajes (MIA) se creó y validó el instrumento “Aprendizajes básicos para el manejo emocional en niños y adolescentes” (MENA). Dicho instrumento se aplicó a una muestra de 352 alumnos de primaria y secundaria de entre 6 y 16 años. Se obtuvieron 15 reactivos ordenados en cuatro factores

¹ Esta investigación se realizó gracias a los fondos asignados al proyecto Medición Independiente de Aprendizajes (MIA) por parte de la William and Flora Hewlett Foundation

(Afrontamiento, Control de la impulsividad, Identificación y Comprensión y expresión) que explican 49.9 % de la varianza y obtienen un alfa de Cronbach de 0.72.

Palabras clave: afectividad, competencias para la vida, educación básica, test psicológico.

Abstract

Emotional management, with different meanings and under different approaches, has gained importance in recent years within educational discussions and curricula; however, the evaluation of this issue within the area of education is still in the initial stages. As part of the project Independent Measurement of Learning (MIA), the instrument “Basic learning for emotional management in children and adolescents” (MENA, for its acronym in Spanish) was created and validated. This instrument was applied to a sample of 352 primary and secondary school students between the ages of 6 and 16. We obtained 15 items ordered in four factors (Coping, Control of impulsivity, Identification, and Comprehension and Expression) that explain 49.9% of the variance and obtain a Cronbach's alpha of 0.72.

Keywords: emotions, life skills, basic education, psychological tests.

Resumo

A gestão emocional, com diferentes significados e sob diferentes enfoques, vem ganhando importância nos últimos anos nas discussões e currículos educacionais, mas a avaliação dessa questão na área da educação ainda está em seus estágios iniciais. No âmbito do projeto Independent Measurement of Learning (MIA), foi criado e validado o instrumento “Aprendizagem básica para a gestão emocional em crianças e adolescentes” (MENA). Esse instrumento foi aplicado a uma amostra de 352 alunos do ensino fundamental e médio, com idades entre 6 e 16 anos. Foram obtidos 15 itens ordenados em quatro fatores (Enfrentamento, Controle da impulsividade, Identificação e Compreensão e expressão) que explicam 49,9% da variância e obtêm um alfa de Cronbach de 0,72.

Palavras-chave: afetividade, habilidades para a vida, educação básica, teste psicológico.

Fecha Recepción: Agosto 2020

Fecha Aceptación: Marzo 2021

Introduction

In recent years, efforts to counteract the educational crisis in Mexico have been directed mainly to the issue of educational quality. Although progress has been made, especially in coverage - 97.7% of children between 6 and 11 years old attend school (National Institute for the Evaluation of Education [INEE], 2019) - regarding quality, in recent years. For 20 years, the actions have not been constant enough to be reflected in the results of basic learning and in the ultimate goal of education, which is the quality of life of people.

To have an impact on people's quality of life, "education must seek the integral formation of all girls, boys and young people; at the same time that it cultivates the conviction and the necessary capacity to contribute to the construction of a more just and inclusive society "(Ministry of Public Education [SEP], 2017b, p. 45). Therefore, quality education must provide individual and social skills to lead healthy and fulfilling lives (United Nations Educational, Scientific and Cultural Organization [Unesco], 2015) and opportunities for the pursuit of happiness.

The discussion on the quality of education has been broad and has focused on at least four pillars, one of which is the relevance of learning (United Nations Educational, Scientific and Cultural Organization [Unesco], 2004). One of the most important criticisms of the Mexican educational system is that it provides little relevant learning, that is, that it does not prepare boys and girls with the essential basics to face life according to the characteristics of their contexts (Coll, 2014).

Basic learning is a set of fundamental skills and knowledge that help personal and social development; In case of not acquiring them at the end of basic education, the life project of the individuals is compromised and these, the individuals, run the risk of being socially excluded (Coll and Martín, 2006; Vergara-Lope, 2018), due to to that these knowledge are considered necessary foundations to be able to continue learning throughout life.

If we take into account that the demands that individuals have to face throughout their lives are very varied and come from a wide range of contexts, then it is of the utmost importance to question what is the essential basic that boys and girls should have to learn to be able to continue developing and achieve a good quality of life.

According to Coll and Martín (2006), learning is considered basic if it is essential to achieve one or more of the following purposes:

a) Make possible the full exercise of citizenship within the framework of the reference society; b) be able to build and develop a satisfactory life project; c) ensure balanced personal, emotional and affective development, or d) be able to access other subsequent educational and training processes with guarantees of success (p. 17).

Basic learning is defined in terms of competences, content, abilities or capacities (Coll and Martín, 2006).

Traditionally, only reading and mathematics learning have been considered essential basic ones, however, according to the aforementioned perspective, the following contents should also be included: knowledge, skills, cognitive practices, intellectual, creative, social, emotional components, Attitudinal, motivational and values, which are necessary to live in a better way and face the demands of the environment. Thus, we believe that there are specific essential learning that has not yet acquired due importance within the Mexican curriculum.

In relation to the evaluation of these basic learning, in the area of reading and mathematics there are some examples that have been carried out by the Citizen Action Network for Learning (PAL Network), which works in 14 countries and three continents carrying out citizen measurements of basic learning. This network had its beginnings in India in 2005 and countries from Asia, Africa and America were added, although, it is worth mentioning, Mexico is the only nation in this last continent with the Independent Measurement of Learning (MIA) (Red PAL, s. f).

All citizen learning measurements share some characteristics, for example: that they are carried out in homes and not in schools; These are not government evaluations, but are carried out by citizen volunteers together with civil society organizations and academia, which requires the use of simple and easy-to-apply instruments that provide results that are easy to interpret and that can be applied by anyone, and they are formative measurements that link to actions more directly, to name just a few characteristics.

Since 2018, the MIA has begun the process of expansion in the assessment of the domains of basic learning: going beyond reading and mathematics. Proof of this is the interest in the subject of learning for the management of emotions, a subject that inspires this work.

The bet is to consider educational evaluation not only as a tool to measure the impact of an educational intervention, but as a strategy to know the specific needs and levels of

achievement in basic learning at the beginning of each educational context, and thus have a relevant starting point on the learning to develop.

Focusing specifically on the basic learning of the emotional area, they are part of the basic learning for life and the integral development of people, and it is necessary to conceive them as such in order to give them due importance. Emotional education works as a pillar that allows children to deal with other areas and aspects of their lives, and provides the minimum necessary ground to learn and live happily. The management of emotions has a substantial influence on the health, learning, socialization, citizenship and creativity of individuals, and functions as a cause and consequence in education.

Emotions have been defined from various orientations and theories. They are associated with temporary physical, cognitive and behavioral reactions with significant social repercussions. Without a doubt, they are essential for the survival and adaptation of the human being (Bustamante, 2007).

Emotions lead individuals to involuntary responses, but responses can become controlled and dominated when awareness is made of what it feels like and the consequences that such action can bring. Emotional education allows to exercise control over the behavioral part of the emotion, but not over the emotion itself (Casassus, 2007). However, from the cognitive level, it is possible to work with how to assess the events or stimuli that generate emotions and, by this means, gradually modify the emotions that occur after these same events.

It is necessary for children and adolescents to learn to manage the thoughts and behaviors that could cause overwhelming situations in their lives, especially in key situations: avoiding risky behaviors, violent behaviors and depressive states, among others.

The acquisition of skills for emotional management is scientifically based from the neurosciences, the cognitive and social models. The interpretation of emotions does not only depend on the brain or the cognitive capacities of the subject; also of what the subject learns from the context in which it develops. The way in which their parents, friends and teachers handle their emotions will influence the way in which the subject learns to assimilate their own emotions.

According to the cognitive model, for the processes of identification, understanding and emotional expression to occur, the meaning of the presented stimulus must first be known. Here the brain evaluates the incoming signals and compares them with the

information in memory, whether it is there by experience or by inheritance, to determine what it means. Later there will be an emotional expression, which can be manifested in many ways: contraction of facial or body muscles, bristling of hair, etc. Through introspection, the child evaluates the emotion as something pleasant or unpleasant and is oriented towards their acceptance or rejection (Bustamante, 2007; Fernández de Molina, 1991).

Finally, there is the regulation process, where the person chooses the necessary strategies to cope with the situation. The person will be able to use different strategies, from remembering a positive event to carrying out a recreational activity, to counteract the negative effects of emotion, since, as explained by Maturana (1997), for all human action there is an emotion that originates it and it makes it possible as an act, because, ultimately, it is not reason that directs us to action, but emotion. However, as Ellis (1962) emphasizes throughout his theory, modifying reason (thoughts, ideas or beliefs) can also modify the resulting emotion.

In this area of development, some efforts by civil organizations and the Mexican Government are recognized “to introduce a systemic approach in emotional and social education. However, despite numerous curricular reforms related to emotional and social education, teaching continues to lack a mandatory integrated socio-emotional approach”(Fundación Botín, 2015, p. 11).

The terms used to refer to learning related to the emotional part of individuals vary according to different theories and approaches. These have been linked to the concept of coping (Lazarus and Folkman, 1984; Lazarus and Lazarus, 1994; Trianes, 2002); that of self-control (Harter, 1983; Tangney, Baumeister and Boone, 2004; Dixon and Tibbetts, 2009); with emotional regulation (Gross, 1999); with interpersonal and intrapersonal intelligences (Gardner, 2005), and finally with the development of emotional intelligence (Bar-On and Parker, 2000; Bisquerra, 2009; Goleman, 1996; Mayer and Salovey, 1997).

From the international level, the Organization for Economic Cooperation and Development (OECD) and the World Bank have included emotional education in the so-called skills and competences of the 21st century and soft skills. For its part, the World Bank has defined them as socio-emotional skills:

A set of characteristics that allow a human being to interact successfully in life. It all starts with good nutrition, good health, and a stimulating environment for the first 1000 days. These skills are later developed at home and at school (Casma, 2015).

While the SEP (2017a) defines socio-emotional skills as follows:

Learning process through which children and adolescents work and integrate into their lives the concepts, values, attitudes and skills that allow them to understand and manage their emotions, build a personal identity, show attention and care towards others, collaborate, establish positive relationships, make responsible decisions and learn to handle challenging situations, constructively and ethically (p. 518).

The concept used in this document and instrument is that of basic learning for emotional management, which specifically refers to "the set of essential skills and knowledge necessary for the management of emotions in order to solve and cope with problems. daily problems in search of the integral development of individuals "(Blancas, 2017, p. 3).

In Mexico, in 2016, the educational system added socio-emotional education to the mandatory curricular proposal from a focus on integral human development (Pérez et al., 2016). What is not specified is how to implement it effectively, since only 30 minutes a week are proposed for this area (SEP, 2017b), in addition to the fact that there are no training proposals for teachers on how to address the issues with the students or in themselves, without forgetting that there is no evaluation system for these learnings.

INEE proposed some evaluations for 2018, for example: the Teaching and Learning International Survey (Talis), Planea-06.09, the Program for the International Evaluation of Students (PISA) and the Evaluation of the Educational Offer (EVOE); none of them included items or indicators related to social-emotional management.

Despite the fact that innumerable proposals for psychological instruments have been developed at an international level that measure aspects related to emotions and their management, and some have even been adapted to Spanish and the Mexican context, there have been no instruments designed for the child and adolescent population since the educational plan that allows knowing the basic learning for emotional management that Mexican children and adolescents have.

The state of the art of evaluations related to the management of emotions allows us to identify some limitations for their application in the child population, especially because they are very extensive instruments that are not focused on the essential basic skills, in addition to not covering children More smalls. Some examples of them are shown below.

The Trait Emotional intelligence Questionnaire- Child Form (TEIQue-CF) was created by Mavroveli, Petrides, Shove and Whitehead (2008); It consists of 75 items, is aimed at children between 8 and 12 years old and measures the following dimensions: 1) adaptability, 2) affective disposition, 3) emotional expression, 4) emotional perception, 5) emotional regulation, 6) low impulsivity, 7) peer relationships, 8) self-esteem and 9) self-motivation.

A second example is the Emotional Quotient Inventory: Youth Version (EQ-i: YV) (Bar-On and Parker, 2000), which consists of 60 items and is aimed at people between 8 and 18 years of age; measures five factors of emotional intelligence: 1) mood, 2) adaptability, 3) emotion management / stress control, 4) interpersonal intelligence and 5) intrapersonal intelligence.

Still others is the work of Martínez and Sánchez (2011), who conceived a test aimed at people between 18 and 28 years of age that is divided into three dimensions: 1) the ability to express one's own emotions accurately, 2) the level of emotional intensity (reactivity) and 3) the ability to engage, prolong or get rid of an emotional state.

Methodological approach

The objective of this research was to create an instrument that allows to measure basic learning for emotional management in children and adolescents in a valid and reliable way. It is a work that is part of the extension of domains that is carried out in the MIA project.

The creation and validation of the instrument went through several phases. In the last one, in the validation one, it was applied to a total sample of 352 students from three schools near the city of Xalapa, Veracruz: 69% belonged to the primary level of a private school, 20% of the students attended to a rural primary school and 11% of the remaining students belonged to the three grades of the telesecundaria of a rural community. Regarding gender, 55.5% of the sample were women and 44.5% men; the age range was 6 and 16 and a mean of 9.64 (SD = 2,194). The distribution by school grade is as shown in table 1.

Tabla 1. Distribución de frecuencias por grado

Grado	Frecuencia	Porcentaje válido
1.º primaria	53	15.1 %
2.º primaria	41	11.6 %
3.º primaria	64	18.2 %
4.º primaria	55	15.6 %
5.º primaria	58	16.5 %
6.º primaria	41	11.6 %
2.º secundaria	9	2.6 %
3.º secundaria	16	4.5 %
Total	352	100 %

Fuente: Elaboración propia

The sampling carried out was non-probabilistic for convenience and by quotas. The piloting was carried out in the classrooms of the aforementioned schools. Each student had a desk, pencil and eraser to answer the instrument.

The procedure for the creation of the instrument began with in-depth theoretical research to determine the conceptualization of the construct and the dimensions of the instrument called Basic Learning for Emotional Management in Children and Adolescents (MENA) and to analyze the existing instruments.

Three dimensions were determined and defined from the theory: 1) emotional perception, 2) emotional understanding and 3) emotional regulation, the three used in piloting. Items were created for each of the dimensions and their indicators; thus, the first instrument proposal with 75 items was created. This was applied to seven experts (psychologists and psychology degree interns) in order to select the best-written items with the greatest relevance to the dimensions. 23 items were discarded, so the proposal was reduced to 52 items. A first pilot was carried out on a small group of children between 8-12 years old in order to observe if they understood the vocabulary and the wording of the items. Changes were made to existing reagents and one more item was added.

The format for expert judges was made, which consisted of 53 items. Twenty-two judges participated, including psychologists and pedagogues from the Veracruzana University with levels of undergraduate, master's and doctorate education. After this, the data were captured in an Excel database and the means of each item were obtained. Only items

with a score greater than or equal to 80% or 80% agreement were selected, and 13 items were discarded. Subsequently, an analysis of the items was performed and those that resembled or did not belong to the dimension were removed; 16 reagents in total were discarded.

Finally, the instrument was piloted with 24 items and applied to the sample of boys and girls previously described in the method section (see table 2).

Tabla 2. Versión del MENA para pilotaje 24 ítems

	Nunca	A veces	Casi siempre	Siempre
1) Puedes identificar el estado de ánimo de los demás.	1	2	3	4
2) Puedes identificar tus emociones durante el día.	1	2	3	4
3) Te es fácil pedir ayuda cuando lo necesitas.	1	2	3	4
4) Te cuesta trabajo identificar porque te sientes triste.	1	2	3	4
5) Cuando estás enojado/a te dan ganas de golpear.	1	2	3	4
6) Te es difícil encontrar las palabras para describir lo que estás sintiendo.	1	2	3	4
7) Puedes identificar cómo te sientes cuando te regañan.	1	2	3	4
8) Cuando alguien te trata mal se lo dices.	1	2	3	4
9) Aunque te sientas mal, procuras pensar en cosas agradables.	1	2	3	4
10) Sabes que es normal sentir emociones.	1	2	3	4
11) Tienes dificultades para expresar lo que sientes.	1	2	3	4
12) Te das cuenta cuando algo te hace sentir avergonzado/a.	1	2	3	4
13) Tú puedes hacer cosas para sentirte mejor.	1	2	3	4

14) A lo largo del día se pueden experimentar diversas emociones.	1	2	3	4
15) Puedes alejarte de lo que te hace sentir mal.	1	2	3	4
16) Cuando algo te molesta explotas o pierdes el control fácilmente.	1	2	3	4
17) Suelas mentir acerca de tus emociones.	1	2	3	4
18) Cuando sientes una emoción, puedes identificar qué te hizo sentir así.	1	2	3	4
19) Piensas antes de actuar.	1	2	3	4
20) Cuando estas triste se te dificulta realizar tus actividades como normalmente lo harías.	1	2	3	4
21) Te das cuenta cuando se te pasa el enojo.	1	2	3	4
22) Puedes aguantarte, aunque no te agrade estar en un lugar.	1	2	3	4
23) Sabes cuando alguien expresa de manera adecuada sus emociones.	1	2	3	4
24) Te aburres con facilidad.	1	2	3	4

Fuente: Elaboración propia

After the data was captured, the following statistical analyzes were performed using the IBM SPSS Statistics 20 statistical package:

- Descriptive analysis of the items and elimination of items by response percentages in each option P and Q, according to the distribution of the percentages of their response and determine whether or not they discriminated.
- For content validity, an exploratory factorial analysis of principal components was carried out with Varimax rotation (Méndez and Rondón, 2012). The analysis also served to eliminate reagents and obtain factors.
- For reliability, Cronbach's alpha coefficient was used by dimension and total and an item-total score correlation, which also served to eliminate items.
- By means of percentiles the rating of the instrument was determined.

Results

The items were scored from one to four according to the response options from never to always, except negative items: 4, 5, 6, 11, 16, 17, 20 and 24.

When performing the frequency analysis to discard items that did not discriminate, only item 10, "You know that it is normal to feel emotions", obtained more than 70% frequency in a single response option (highlighted in table 3).

Tabla 3. Porcentajes por opción de respuesta y correlación ítem-calificación total de los 24 reactivos del MENA. Ítems negativos en negritas

Ítems	Nunca	A veces	Casi siempre	Siempre	Correlación ítem-total
1) Puedes identificar el estado de ánimo de los demás.	3.2 %	22.4 %	48.0 %	26.4 %	0.273***
2) Puedes identificar tus emociones durante el día.	3.2 %	14.3 %	27.5 %	55 %	0.488***
3) Te es fácil pedir ayuda cuando lo necesitas.	5.2 %	29.2 %	32.4 %	33.2 %	0.426***
4) Te cuesta trabajo identificar porqué te sientes triste.	12.7	21.3	38.9	27.1	0.339***
5) Cuando estás enojado/a te dan ganas de golpear.	29.9	14.5	25.5	30.1	0.308***
6) Te es difícil encontrar las palabras para describir lo que estás sintiendo.	19.4	25.1	40.8	14.7	0.289***
7) Puedes identificar cómo te sientes cuando te regañan.	7.0 %	15.4 %	23.2 %	54.5 %	0.348***
8) Cuando alguien te trata mal se lo dices.	14.8 %	30.1 %	22.9 %	32.2 %	0.470***
9) Aunque te sientas mal, procuras pensar en cosas agradables.	9.2 %	21.9 %	27.7 %	41.2 %	0.388***

10) Sabes que es normal sentir emociones.	2.3 %	7.5 %	15.7 %	74.5 %	0.386***
11) Tienes dificultades para expresar lo que sientes.	17.9	23.1	38.7	20.2	0.393***
12) Te das cuenta cuando algo te hace sentir avergonzado/a.	4.6 %	15.9 %	24.3 %	55.2 %	0.349***
13) Tú puedes hacer cosas para sentirte mejor.	2.6 %	10.1 %	32.65 %	54.8 %	0.423***
14) A lo largo del día se pueden experimentar diversas emociones.	1.7 %	16 %	29.9 %	52.3 %	0.402***
15) Puedes alejarte de lo que te hace sentir mal.	5.8 %	25.4 %	32.6 %	36.3 %	0.412***
16) Cuando algo te molesta explotas o pierdes el control fácilmente.	21.7	19.1	41.9	17.3	0.404***
17) Suelas mentir acerca de tus emociones.	14.1	10.6	38.5	36.8	0.424***
18) Cuando sientes una emoción, puedes identificar qué te hizo sentir así.	6.3 %	17.7 %	37.4 %	38.6 %	0.541***
19) Piensas antes de actuar.	6.6 %	26.6 %	34 %	32.9 %	0.435***
20) Cuando estás triste se te dificulta realizar tus actividades como normalmente lo harías.	15.7	30	42.6	11.7	0.177***
21) Te das cuenta cuando se te pasa el enojo.	5.4 %	18.9 %	26.6 %	49 %	0.503***
22) Puedes aguantarte aunque no te agrada estar en un lugar.	5.7 %	30.7 %	33 %	30.5 %	0.217***
23) Sabes cuando alguien expresa de manera adecuada sus emociones.	4.3 %	25.9 %	38 %	31.7 %	0.400***
24) Te aburres con facilidad.	33.7	16.9	31.7	17.7	0.332***

Fuente: Elaboración propia

Also, to analyze the items, an item-total score correlation was performed. Spearman's rho analysis yielded significant correlations with strength above 0.15 for all items.

Subsequently, by means of a factorial analysis using the principal component analysis extraction method with Varimax rotation, after six iterations without forcing the number of factors, the best possible combination was found.

The Kaiser-Meyer-Olkin (KMO) sample adequacy test had a value of 0.767, while the Bartlett test of sphericity presented a significant value at 0.001 ($gl = 105$), chi squared equal to 721.285, which shows that it is appropriate to perform factor analysis.

The result gives us four factors that explain 49.9% of the variance. Table 4 shows the factorial loads for 15 items. A total of nine items were left out for having factor loadings below 0.40 or scoring more than one factor at a time above 0.40.

Tabla 4. Matriz de componentes rotados con cargas factoriales versión MENA de 15 reactivos

# de ítem	Ítem	Afrontamiento	Control de la impulsividad	Identificación de emociones	Comprensión y expresión de emociones
3	Te es fácil pedir ayuda cuando lo necesitas.	0.612			
8	Cuando alguien te trata mal se lo dices.	0.657			
9	Aunque te sientas mal, procuras pensar en cosas agradables.	0.406			
13	Tú puedes hacer cosas para sentirte mejor.	0.634			
15	Puedes alejarte de lo que te hace sentir mal.	0.565			

5	Cuando estás enojado/a te dan ganas de golpear.		0.771		
16	Cuando algo te molesta explotas o pierdes el control fácilmente.		0.728		
19	Piensas antes de actuar.		0.641		
7	Puedes identificar cómo te sientes cuando te regañan.			0.703	
18	Cuando sientes una emoción, puedes identificar qué te hizo sentir así.			0.621	
21	Te das cuenta cuando se te pasa el enojo.			0.675	
4	Te cuesta trabajo identificar porqué te sientes triste.				0.683
11	Tienes dificultades para expresar lo que sientes.				0.723
17	Sueles mentir acerca de tus emociones.				0.508
24	Te aburres con facilidad.				0.413

Fuente: Elaboración propia

According to the factor analysis, the factors (table 4) were renamed as follows:

- a) Identification of emotions: it is the first learning necessary to develop, because it is based on the recognition of facial, verbal and psychosomatic expressions that emotions cause in people (Mayer and Salovey, 1997).
- b) Understanding and emotional expression: it is understood as the ability to reflect on the causes of emotions and to be able to express them appropriately (Mayer and Salovey, 1997).
- c) Impulse control: defined as the ability to control impulses generated by negative emotions (Dixon and Tibbetts, 2009; Harter, 1983; Tangney et al., 2004).
- d) Coping: this ability is defined as the individual's ability to change the situation or generate positive thoughts to handle a situation considered overflowing or surplus in his life (Lazarus y Folkman, 1984).

Finally, when performing the reliability analysis using the internal consistency index, a total Cronbach's alpha of 0.72 was obtained with 15 items and per dimension as shown in Table 5.

Tabla 5. Dimensiones del MENA con definiciones, alfas de Cronbach y porcentaje de varianza explicada

Dimensión: Afrontamiento	
Definición: capacidad del individuo para cambiar la situación o generar pensamientos positivos para manejar alguna situación considerada como desbordante o excedente en su vida (Lazarus y Folkman, 1984).	
# de reactivos: 5	% de la varianza explicada: 13.81 Alfa de Cronbach: 0.62
Numeración	Reactivo
1	Te es fácil pedir ayuda cuando lo necesitas.
5	Cuando alguien te trata mal se lo dices.
2	Aunque te sientas mal, procuras pensar en cosas agradables.
12	Tú puedes hacer cosas para sentirte mejor.
6	Puedes alejarte de lo que te hace sentir mal.
Dimensión: Control de la impulsividad	
Definición: capacidad para controlar los impulsos generados por emociones negativas (Dixon y Tibbetts, 2009; Harter, 1983; Tangney <i>et al.</i> , 2004).	
# de reactivos: 3	% de la varianza explicada: 13.45 Alfa de Cronbach: 0.62
Numeración	Reactivo
3	Cuando estás enojado/a te dan ganas de golpear.
14	Cuando algo te molesta explotas o pierdes el control fácilmente.
9	Piensas antes de actuar.
Dimensión: Identificación de emociones	
Definición: habilidad para identificar las emociones en uno mismo (Mayer y Salovey, 1997).	
# de reactivos: 3	% de la varianza explicada: 11.46 Alfa de Cronbach: 0.59
Numeración	Reactivo
10	Puedes identificar cómo te sientes cuando te regañan.
13	Cuando sientes una emoción, puedes identificar qué te hizo sentir así.
15	Te das cuenta cuando se te pasa el enojo.
Dimensión: Comprensión y expresión de emociones	

Definición: habilidad para reflexionar sobre las causas de las emociones y poder expresarlas (Mayer y Salovey, 1997).	
# de reactivos: 4	% de la varianza explicada: 11.16 Alfa de Cronbach: 0.54
Numeración	Reactivo
7	Te cuesta trabajo identificar porqué te sientes triste.
8	Tienes dificultades para expresar lo que sientes.
4	Sueles mentir acerca de tus emociones.
11	Te aburres con facilidad.

Fuente: Elaboración propia

Table 6 shows the maximums and minimums of each of the dimensions, as well as their means, weighted means, and standard deviations.

Tabla 6. Medias, desviaciones estándar y medias ponderadas de cada factor

	Núm. reactivos	Media ponderada	Media	DE	Mín.	Máx.
Afrontamiento	5	2.98	14.91	3.034	6	20
Control de la impulsividad	3	2.66	7.97	2.388	3	12
Identificación	3	3.15	9.44	2.091	3	12
Comprensión y expresión	4	2.66	10.63	2.765	3	16
Sumatoria total	15	2.86	42.89	7.027	8	59

Fuente: Elaboración propia

With the weighted means we can see that in this sample the lowest score was given in Control of impulsivity and Comprehension and expression; and the highest in Identification.

In the final version of the instrument (see annex) the answer options go from never to always and are scored from one to four respectively, except for negative items that are scored the other way around and which are six: 3, 4, 7, 8, 11 and 14.

The use of percentiles was used to obtain the different levels of learning of emotional management in children and adolescents.

The maximum possible qualification is 60 and the minimum of 15 points (see table 7).

Tabla 7. Calificación del instrumento MENA

Puntaje	Calificación	Percentil
15-39	Baja	0-25
40-45	Media	26-75
46-60	Alta	76-100

Fuente: Elaboración propia

Discussions

The intention of this research was to generate a valid and reliable instrument to measure basic learning for emotional management in children and adolescents as part of the MIA project (Hevia and Vergara-Lope, 2016; Vergara-Lope, 2018; Vergara-Lope and Hevia, 2018; Vergara-Lope, Hevia and Rabay, 2017). The objective of the instrument, its use and its creation are supported by the methodology of citizen learning measurements. This implies easy-to-apply and qualify instruments that specifically focus on basic learning, in this case emotional management. The size of the instrument is also relevant, so it was tried at all times to keep the least number of reagents possible, since the application of the instruments in MIA and in general in citizen learning measurements is carried out by volunteer citizens, in homes and on a large scale.

The creation of this instrument within the MIA aims to include the management of emotions as part of the basic learning necessary for life, that is, to highlight the central role of this type of learning in the development of the capacities of individuals and in general in the learning processes throughout life. Since, like the learning of reading and mathematics, they are essential to continue learning and reach the maximum potential of people. Its deficit, as in the case of other learning considered historically basic, produces inequality and negative effects on people's personal and social development.

It is necessary to clarify that, when measuring basic learning, the instrument works as a kind of screening that aims to detect the gaps in these learning to carry out actions focused on them. It does not allow to measure curricular learning.

The limitations of having a small number of items are manifested in low internal consistency indices per dimension, although the total Cronbach's alpha is acceptable. This prevents the dimensions from being used separately, but allows the instrument to be used in its entirety.

It is necessary to direct more research and analysis to the points that differentiate or resemble a clinical / psychological approach to emotions and an educational / school one and their implications in emotional education and emotional competencies.

The dimensions obtained in this instrument are linked to dimensions referred to in other instruments aimed at boys and girls, which, although based on other concepts, contain a large number of items, and are not directed towards the educational area, they have a certain relationship, for example, with the Multifactor Emotional Intelligence Scale (MEIS) (Mayer, Salovey and Caruso, 1999) and with the EQ-i: YV (Bar-On and Parker, 2000).

It is considered that, like any instrument, a review has to be carried out after applying it and verifying its benefits in the field of formative assessment.

On the other hand, the possibility of being applied on a large scale and with the methodology of citizen-directed evaluations allows detecting the basic elements that must be focused on in terms of emotional education in specific places and contexts. Its easy application, in addition, allows it to be used by any teacher, family member or volunteer, and from there to know the areas of opportunity to work.

Conclusions

Knowing the skills with which Mexican children and adolescents are gifted on managing their emotions will allow creating action options to improve them, since emotional management, being related to the ability to solve problems, attention, concentration, memory, socialization, creativity, locus of control, coping, violence, among others, is also necessarily linked, on a day-to-day basis, with cognitive learning such as reading and mathematics, and therefore, to desertion, failure and repetition, as well as to academic performance and achievement in general.

The final version of the MENA instrument (see annex), which was developed in this research, consisted of 15 items and it is a pencil and paper questionnaire that can be applied individually or in groups, in the form of an interview and even self-administered, depending on the context and the objective. It has four Likert-type response options, which are: never, sometimes, almost always and always.

The MENA is a short, practical, valid and reliable instrument to know the basic learning levels in the management of emotions in Mexican children and adolescents. Its reliability with 15 items was acceptable with an alpha of 0.72. Through factor analysis, four factors or

dimensions were detected, namely: Coping, impulse control, Identification of emotions and Understanding and emotional expression, which together explain 49.9% of the variance. Considering that quality education must include skills that help development, not only cognitive, but also personal and social, that lead children to have healthier lives in all areas and contribute to the formation of happy and committed citizens. their environment, working with socio-emotional skills becomes indispensable. Thus, the MENA instrument can be used as a tool to detect areas of opportunity to develop interventions in this area and measure their effects.

Future lines of research

Measuring basic learning has been a challenge in itself, since reflecting on what is essential that a child should learn in their first years of education in order to develop all their potentialities is not an easy task. In the field of socio-emotional competencies this still requires a lot of scientific and research work. It is considered that, as in any measuring instrument, it is necessary to make subsequent revisions of the reagents and dimensions, and to perform an analysis by means of the reagent response theory and the Rasch method. This research allows detecting areas of emotional management that are lower and that are practically null in school work, such as the control of impulsivity and the expression of emotions. But the possibility of working on these issues in the classroom will necessarily imply training and training for teachers, since until now they have not been provided with strategies to deal with these issues. The research agenda, then, would be aimed at improving existing measurement tools and creating new instruments, in addition to the development of empirically proven interventions, specifically directed at the areas of emotional management less worked at present, and which result lower in the measurements, and the respective training of teachers in the application of these interventions.

References

Bar-On, R. and Parker, J. D. (2000). *EQ-I: YV. Baron Emotional Quotient Inventory: Youth Version. Technical Manual*. Toronto, Canada: Multi-Health-Systems (MHS).



- Bisquerra, R. (2009). *Psicopedagogía de las emociones*. Madrid, España: Síntesis.
- Blancas, A. (2017). *Aprendizajes Básicos para el Manejo Emocional en Niños y Adolescentes (MENA): creación y validación de un instrumento de medición*. Veracruz, México: Universidad Veracruzana.
- Bustamante, E. (2007). *El sistema nervioso. Desde las neuronas hasta el cerebro humano*. Medellín, Colombia: Universidad de Antioquia. Recuperado de <https://books.google.com.ni/books?id=e-Mja7NYJj0C&printsec=copyright#v=onepage&q&f=false>.
- Casassus, J. (2007). *La Educación del ser emocional*. Santiago, Chile: Cuarto Propio.
- Casma, J. C. (15 de junio 2015). Las emociones valen tanto como los conocimientos. Banco Mundial. Recuperado de <http://www.bancomundial.org/es/news/feature/2015/06/22/las-emociones-valen-tanto-como-los-conocimientos>.
- Coll, C. (2014). El sentido del aprendizaje hoy: un reto para la innovación educativa. *Aula de Innovación Educativa*, 232, 12-17. Recuperado de <http://aula.grao.com/revistas/aula/232-el-sentido-del-aprendizaje-hoy/el-sentido-del-aprendizaje-hoy-un-reto-para-la-innovacion-educativa>.
- Coll, C. y Martín, E. (2006). *Vigencia del debate curricular. Aprendizajes básicos, competencias y estándares*. Ciudad de México, México: Secretaría de Educación Pública.
- Dixon, M. R. and Tibbetts, P. A. (2009). The effects of choice on self-control. *Journal of Applied Behavior Analysis*, 42(2), 243-252.
- Ellis, A. (1962). *Reason and Emotion in Psychotherapy*. United States: Lyle Stuart.
- Fernández de Molina, A. (1991). *El camino cerebral de la emoción*. Madrid: Instituto de España, Real Academia Nacional de Medicina.
- Fundación Botín. (2015). *Educación emocional y social. Análisis internacional*. Santander, España: Fundación Botín.
- Gardner, H. (2005). *Inteligencias múltiples. La teoría en práctica*. Barcelona, España: Paidós.
- Goleman, D. (1996). *Inteligencia emocional*. Madrid, España: Kairos.
- Gross, J. (1999). Emotion Regulation: Past, Present, Future. *Cognition and Emotion*, 13(5), 551-573.

- Harter, S. (1983). Developmental perspectives on the self-esteem. In Eisenberg, N. (ed.), *Handbook of Child Psychology*. Nueva York, United States: Academic Press.
- Hevia, F. J., y Vergara-Lope, S. (2016). Evaluaciones educativas realizadas por ciudadanos en México: validación de la Medición Independiente de Aprendizajes. *Innovación Educativa*, 16, 26.
- Instituto Nacional para la Evaluación de la Educación [INEE]. (2019). La educación obligatoria en México. Informe 2018. México: Instituto Nacional para la Evaluación de la Educación. Recuperado de https://www.inee.edu.mx/portalweb/informe2018/04_informe/capitulo_020201.html
- Lazarus, R. and Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York, United States: Springer.
- Lazarus, R. and Lazarus, B. (1994). *Passion and Reason: Making Sense of our Emotions*. New York, United States: Oxford University Press.
- Martínez, P. y Sánchez, R. (2011). Evaluación Multimétodo de la Expresión Emocional. *RIDEP*, 1(31), 11-35. Recuperado de http://www.aidep.org/03_ridep/R31/R31%20art1.pdf.
- Maturana, H. (1997). *Emociones y lenguaje en educación y política*. Chile: Comunicaciones Noreste LTDA.
- Mavroveli, S., Petrides, K., Shove, C. and Whitehead, A. (2008). Validation of the construct of trait emotional intelligence in children. *European Child & Adolescent Psychiatry*, 17(8), 516-526.
- Mayer, J. and Salovey, P. (1997). What is emotional intelligence? In Salovey, P. and Sluyter, D. J. (eds.), *Emotional Development and Emotional Intelligence: Educational Implications*. Nueva York, United States: Basic Books.
- Méndez, C. y Rondón, M. (2012). Introducción al análisis factorial exploratorio. *Revista Colombiana de Psiquiatría*, 41(1).
- Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura [Unesco]. (2004). *Educación para todos. El imperativo de la calidad*. París, Francia: Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura. Recuperado de http://www.unesco.org/education/gmr_download/es_summary.pdf.

- Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura [Unesco]. (2015). *Declaración de Incheon y Marco de Acción para la realización del Objetivo de Desarrollo Sostenible 4*. Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura. Recuperado de <http://unesdoc.unesco.org/images/0024/002456/245656s.pdf>.
- Pérez, M., Gáquez, J., Molero, M., Martos, A., Barragán, A. y Simón, M. (2016). Inteligencia emocional y salud en el envejecimiento: beneficios del programa PECE-PM. *Actualidades en Psicología*, 30(121), 11-23.
- Red de Acción Popular para el Aprendizaje [Red PAL]. (s. f.). Qué hacemos. Recuperado de <https://palnetwork.org/what-we-do/?lang=es>.
- Secretaría de Educación Pública [SEP]. (2017a). *Aprendizajes clave para la educación integral. Plan y programas de estudio para la educación básica*. México: Secretaría de Educación Pública. Recuperado de https://www.aprendizajesclave.sep.gob.mx/descargables/APRENDIZAJES_CLAVE_PARA_LA_EDUCACION_INTEGRAL.pdf.
- Secretaría de Educación Pública [SEP]. (2017b). *Modelo educativo para la educación obligatoria. Educar para la libertad y la creatividad*. Ciudad de México, México: Secretaría de Educación Pública. Recuperado de https://www.gob.mx/cms/uploads/attachment/file/207252/Modelo_Educativo_OK.pdf.
- Tangney, J., Baumeister, R. F. and Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, 72(2), 271-324.
- Trianes, M. V. (2002). *Niños con estrés. Cómo evitarlo, cómo tratarlo*. México: Alfaomega.
- Vergara-Lope, S. (2018). Aprendizajes básicos en niños y niñas de Veracruz: primeros resultados de la Medición Independiente de Aprendizajes (MIA). *Revista Interamericana de Educación de Adultos*, 40(2), 44-78.
- Vergara-Lope, S. y Hevia, F. (2018). Rezago en aprendizajes básicos: el elefante en la sala de la Reforma Educativa. En A. Martínez Bordón y A. Navarro Arredondo (Coords.), *La Reforma Educativa a revisión: apuntes y reflexiones para la elaboración de una agenda educativa 2018-2024* (pp. 45-66). Ciudad de México: Instituto Belisario Domínguez, Senado de la República. Recuperado de

https://www.researchgate.net/publication/327857590_La_Reforma_Educativa_a_revision_apuntes_y_reflexiones_para_la_elaboracion_de_una_agenda_educativa_2018-2024

Vergara-Lope, S., Hevia, F. y Rabay, V. (2017). Evaluación Ciudadana de Competencias Básicas de Lectura y Aritmética y Análisis de Factores Asociados en Yucatán, México. *Revista Iberoamericana de Evaluación Educativa*, 10(1), 85-109.

Rol de Contribución	Autor (es)
---------------------	------------



Conceptualización	Samana Vergara-Lope
Metodología	Samana Vergara-Lope
Software	Samana Vergara-Lope
Validación	Samana Vergara-Lope
Análisis Formal	Samana Vergara-Lope
Investigación	Abigail Blancas
Recursos	Fundación Hewlett
Curación de datos	Abigail Blancas
Escritura - Preparación del borrador original	Abigail Blancas
Escritura - Revisión y edición	Samana Vergara-Lope
Visualización	Abigail Blancas
Supervisión	Samana Vergara-Lope
Administración de Proyectos	Samana Vergara-Lope
Adquisición de fondos	Samana Vergara-Lope, Fundación Hewlett

Appendant



Next, table 8 shows the final version of the MENA Instrument, it should be noted that a visual aid was used for the response options. Rectangles were used that in the case of the answer "never" was shown empty, in the case of "sometimes" it was slightly lit, in the case of "almost always" lit a little more than half and finally in the case of "always" fully lit.

The indications given to the boys and girls are as follows: This questionnaire is not an exam, it does not have good or bad, correct or incorrect answers. We only want to know your opinion about the following statements. Mark with an X the answer that most closely resembles what you think most of the time. Please, only mark one answer per sentence and do not leave questions unanswered.

Tabla 8. Instrumento final de Aprendizajes básicos para el manejo emocional en niños y adolescentes (MENA), con codificación para cada opción de respuesta.

	Nunca	A veces	Casi siempre	Siempre
1) Te es fácil pedir ayuda cuando lo necesitas.	1	2	3	4
2) Aunque te sientas mal, procuras pensar en cosas agradables.	1	2	3	4
3) Cuando estás enojado/a te dan ganas de golpear.	4	3	2	1
4) Sueles mentir acerca de tus emociones.	4	3	2	1
5) Cuando alguien te trata mal se lo dices.	1	2	3	4
6) Puedes alejarte de lo que te hace sentir mal.	1	2	3	4
7) Te cuesta trabajo identificar porqué te sientes triste.	4	3	2	1
8) Tienes dificultades para expresar lo que sientes.	4	3	2	1
9) Piensas antes de actuar.	1	2	3	4
10) Puedes identificar cómo te sientes cuando te regañan.	1	2	3	4
11) Te aburres con facilidad.	4	3	2	1
12) Tú puedes hacer cosas para sentirte mejor.	1	2	3	4
13) Cuando sientes una emoción, puedes identificar qué te hizo sentir así.	1	2	3	4
14) Cuando algo te molesta explotas o pierdes el control fácilmente.	4	3	2	1
15) Te das cuenta cuando se te pasa el enojo.	1	2	3	4

Fuente: elaboración propia