Engineering Emotional Intelligence in Moroccan Primary School

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Abstract:
The Moroccan socio-economic context is more and more weakened by a dynamic of accelerated measures aimed at redressing the financial deficits of the state. The first emotionally impacted by this dynamic are parents and therefore their children who begin to live in a universe dominated by fluctuations and unforeseen events. This article will therefore explore the emotional situation of Moroccan pupils at the beginning of schooling and identify their needs in this area, in order to initiate a dynamic of engineering emotional intelligence in primary school. The study was carried out in 3 school groups in Casablanca on a mixed population of 160 pupils and was spread out over a month. The used tools comprised interviews with survey filling to measure the degree of awareness of emotions on the part of these pupils and their teachers. Subsequently, the population was subjected to two tests respectively of impulses control and team spirit. The results show an initial dominance of emotions in the studied population and demonstrate the major interest of a gradual integration of emotional intelligence courses in the primary cycle of education.

Keywords: behaviors, emotions, emotional intelligence, engineering, impulses, school

1. INTRODUCTION:
From the end of the 90s of the last century, intelligence has become a theme highly valued by researchers, especially in the field of education. Howard Gardner was a forerunner in the matter by arguing that there is not only one intelligence but several. Salovey and Mayer followed suit and talked about what they had called "Emotional Intelligence" [1]. A concept that will pave the way for a new conception of intelligence.
A complete redefinition of the concept was taking place after several researchers claimed that success depends only of 20 per cent of the cognitive intelligence and that the latter was conditioned by another form of intelligence: emotional intelligence.
In the same vein, Daniel Goleman protests against the dictatorship exercised until then by the Intellectual Quotient. A dogma that had long been imposed in the fields of pedagogy and learning. He even proved that success in life, like performance at school, is conditioned by the five skills of this newly discovered form of intelligence. Taking up the concept of intrapersonal intelligence, he decomposes it into self-awareness and self-management, and then into self-motivation, whereas interpersonal intelligence is composed of empathy and Social skills [2].
Some questions arise in this connection: at what point in our personal history is emotional intelligence born? Does it belong to the acquired or the innate in the individual? Is it the fruit of an apprenticeship whose process accompanies that of the formation of our identity? Can we talk about the irreversibility of emotional intelligence? And in which case, at what age is it modifiable?
Emotional intelligence belongs to the basic box of needs enumerated by Abraham Maslow in his

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theory. Maslow claimed that each individual has specific needs that fall into five classes arranged in its pyramid in order of priority: 1. Physiological needs; 2. Security needs; 3. Needs of belonging; 4. Needs of Self-esteem; 5. Needs of self-actualization. [3]. Maslow asserts that the satisfaction of each type of needs must be in this order and that the transition to a higher level can only take place after satisfying the needs in the lower box. Needs related to emotional intelligence figure among those of security and belonging. They are therefore the foundation of all social and cognitive learning.

We know that each newborn child inherits certain traits of its biological parents at birth. Those with emotional intelligence are also partly affected. In fact, it is the amygdala that is essentially responsible for managing emotions: "A hypersensitive tonsil generates a rather irritable personality, while a tonsil slow to react gives a personality erased and indolent, so be cautious before assigning the reactions of some pupils to an exclusively affective problem" [4].

But this intelligence also refers to other factors relating to the environment of the individual. From his early childhood, he accumulates experiences that will impact the course of his emotional life. A phase called Goleman "window of opportunity" and extending from 2 months to 3 years. The reactions of the brain to emotional stimuli in a specific way will forcefully determine its identity at this level. At that point, "The first three or four years of life are a period when the toddler's brain grows to about two thirds its full size, and evolves in complexity at a greater rate than it ever will again. During this period, key kinds of learning take place more readily than later in life—emotional learning foremost among them [5].

It is in this respect that the action of the family, both parents in the first place, is decisive. If the family climate is steeped in security and is dominated by stable relationships among its members, the child will tend to be confident in the future and his relational profile will be oriented towards development and evolution.

Otherwise, failures at this level will soon be noticed and he will be dominated by suspicion and anxiety. This education received and subsequently reinforced by the experiential child will serve as an anchor or a break in emotional education.

An education that is transmitted by the parents' words but also instilled and above all by the example that the latters give to their children in the management of their own emotions: "Family life is our first school for emotional learning; in this intimate cauldron, we learn how to feel about ourselves and how others will react to our feelings; how to think about these feelings and what choices we have in reacting; how to read and express hopes and fears" [6].

Although the founding acts of emotional education are in childhood, they can be adjusted along the way. But it is better to prevent breakdowns by early emotional education, for their effects are proved to be indelible at this level.

The impact of this research was significant, especially in the field of learning. Both Americans and their Canadian neighbors have been reconsidered from a different angle from the predominant one until then: Academic success does not depend exclusively on the acquisition of classical skills related to logical-mathematical intelligence but also and above all emotional skills.

And as a result, the teacher is no longer reduced to the role of transmitting knowledge and watching over the conditions of this transmission, but also and above all a human being who acts and interacts with another human being who is the learner. During his academic career, he has more emotional memories of his relationships with his comrades and teachers: "Been more than mere contents of knowledge, relational, affective and social experiences in which they engaged at school are mostly centered on emotions in a way that marked their relationship to learning and knowledge "[5].

And the child is confronted with the difficulty of learning when he is subject to disturbing elements that prevent him from thinking, disturbances of a nature more emotional than cognitive: "Two out of three times, learning is explained by an intellectual functioning disrupted by a disturbance caused by the encounter with the constraints of learning. It is this mechanism that will feed the fear of learning [6].

This fear of learning may be destabilizing, if not traumatic, for some young learners. Hence the very delicate mission of the teacher, firstly to identify the emotional profiles of his students and then to accompany them on the path of exploring their emotional self and then managing their emotions.

Our research has therefore focused on these two axes and, with the help of tools preconceived by specialists in this field, it was aimed at conducting a descriptive exploratory study which would be
useful for Moroccan primary schools’ teachers.

2. METHODOLOGY

As this research is exploratory, we have opted for a more qualitative methodology, our aim being to discover and understand the conception that Moroccan pupils have at the beginning of schooling about their emotions. As the data that came out of the study was difficult to quantify, such as interviews and observations, we used a flexible and inductive method of analysis based on the experience of everyday life [7].

That been said, the choice of the used tools in this study is justified by the object as by the objective of the research. And from the character of the research, their validation can be done by peers exercising in the same field.

2.1 Participants and procedure

The study targeted a mixed population of one hundred sixty (160) pupils from three (3) private schools in Casablanca. All of them study in the CP (Preparatory Cycle) class after three years in preschool at the same institution, for the most part. Ninety (90) subjects were male (56.25%) and seventy (70) females (43.75%). Participants ranged in age from 6 to 7 years. There were 8 female teachers who participated in the study. Their ages varied between twenty-six (26) years for (3) three of them, thirty (30) for two, thirty-five (35), fourty-two (42), and fourty-six (46) years for the last three. Four (4) taught mathematics, two (2) Arabic and two (2) French.
2.2 Tools
Teachers interviews, surveys, and students’ tests were administered by the researchers themselves for an extra-hour time with the prior approval of the administration and in accordance with the legal and ethical guidelines followed by the three schools.

A. Behavior grid
The pupils were subjected to 4 sessions of systematic observation during 4 different courses. The frequency of the observed emotions has been reported on Table-1.

<table>
<thead>
<tr>
<th>TABLE 1-Frequency Of Emotions</th>
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<tbody>
<tr>
<td><strong>Names</strong></td>
</tr>
<tr>
<td>Aggressiveness</td>
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<tr>
<td>Sum</td>
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The rates recorded by each student were calculated on the basis of the grid of behaviors (Table 2.) that indicates the felt emotions.
The sums recorded for each of the study subjects indicate their tendency toward a particular emotional profile.

<table>
<thead>
<tr>
<th>TABLE 1. TABLE 2: Behavioral Indicators of Emotions</th>
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<tbody>
<tr>
<td>Table 2- (based on our observations)</td>
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<table>
<thead>
<tr>
<th>Attitude</th>
<th>Behavior</th>
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</table>
| **Aggressiveness** | • Giving blows,  
| | • Pushing one’s comrades,  
| | • Shouting out insults,  
| | • Threatening looks,  
| | • Clacking the jaws,  
| | • Clenching fists  |
| **Anxiety** | • Difficulty in concentration,  
| | • Low participation,  
| | • Repetitive bursts,  
| | • Nails biting  |
| **Restlessness** | • Chatters,  
| | • Sitting down badly,  
| | • Often turning one’s head,  
| | Shouting words that are unrelated to the course,  
| | • Teasing one’s comrades,  
| | • Moving a lot.  |
| calmness | • Siting properly,  
| | • concentration  
| | • participation  
| | • Not disturbing anyone |

B. Interviews
Interviews were conducted primarily with the eight female teachers. Several questions were asked to assess their perception of the emotional climate of their classes and the methods they use, once the emotional balance of the classroom is threatened.
A second round of interviews involved a sample of thirty-two (32) pupils. They were asked to respond to a semi-structured survey about their perception of their major emotions, namely: fear, joy, anger and sadness. And to assess the level of management of their relationships, another survey was submitted to the same group.
C. The Marshmallow Test
We tried to test the level of control of their impulses by involving the same group in the candy game [8]. The facilitator puts an open dish full of chocolate candies on a table in front of the group of pupils. He clearly states the following to the group:
• Anyone who immediately reaches out to the dish will only get one candy.
• The person who refrains from taking it for half an hour will be entitled to two candies.
And he wrote down his observations regarding how the instructions were respected by the participants.

D. Team Spirit Test
We asked 4 groups (each 8 pupils) to form two groups to participate in a game whose objective is to assess their perception of collective work.
Each student group was divided in two. The facilitator assigns to each subgroup a number of chairs equivalent to that of its members, minus one or two chairs. The instruction is given to all members of each subgroup to sit all down, once the signal is given. No member shall stand. The time set for the game is 10 seconds and both groups must play at the same time [9].

3. RESULTS
During the 4 observation sessions, we noticed quite moderate emotional fluctuations for children in the Preparatory Cycle. We found, by referring to the Grid of behaviors indicators of emotions, a high emotional frequency for boys compared to girls. The Final session devoted to theatrical activities was distinguished by a remarkable fall in emotional fluctuations, with a marked tendency towards calmness.

![Figure 3-Curve of Emotional Fluctuations among Pupils (our work)](image)

The interviews with the teachers lead us to conclude that they perceive their pupils to be agitated. Six (6) of them recommended systematic use of reward and punishment to maintain the emotional balance of the class, before adjusting their opinions at the end and suggesting to react in a different way.

The remaining two (2) teachers suggested a more adaptive approach. They advocate seeking causes, moderating and reassuring the child. When dealing with uncontrolled manifestation of emotions, it is necessary, according to them, to seek causes, to moderate and reassure the child. On the other hand, the eight (8) teachers have no notion of emotional intelligence.

Interviews with the 32 selected pupils revealed that the perception that twenty-four (24) interviewees have of their emotions is somewhat more precise compared to the 8 remaining who show a fairly high degree of confusion about this. The twenty-four (24) have fairly well defined symptoms of their feelings compared to the 8 who have resumed the same symptoms for anger, sadness and fear.

The reactions of the thirty-two (32) pupils to the emotions experienced are spontaneous and adapted for fear and sadness; but not for anger. On the other hand, the consciousness and the management of the emotional reactions are far from being mature.
Concerning the skill to detect the emotions of the other, seventeen (17) of them registered a good level. They are easily able to identify the behavioral indicators of the emotions experienced by the people they frequent. The remaining fifteen (15) have difficulty decoding the signs of emotion in their surroundings. As for their reactions to these emotions, they are spontaneously adapted in the first seventeen (17) and less in the last fifteen (15). The tendency towards teamwork is well displayed for sixteen (16) of them, unlike the remaining sixteen (16) who prefer to work on their own.

On the other hand, the Marshmallow showed that eighteen (18) of the thirty-two (32) participants were unable to resist greed. For the team spirit test, participants from all groups were eager to sit first before all the chairs are taken by the other members of his group.

![Figure 4-Emotional skills acquisition rate (our work)](image)

4. DISCUSSION

Concerning the Consciousness and the management of emotions, the pupils can easily recognize some symptoms of emotions. There is, however, a clear lack in their vocabulary to describe these emotions.

They also intuitively manage their emotions, sometimes giving free rein to their anger, letting themselves be carried away by their inclination to agitation and easily yielding to fear. A consistent portion of the interviewed population acknowledged their shyness. As a result, an initiation into emotion management strategies is essential.

As for their degree of self-motivation, more than half of the tested population could not control their impulse towards chocolate tasting. In the face of the challenges and hardships they will face in the future, children will have to train themselves to delay satisfying their desires if they are to achieve their goals.

Concerning social skills, the pupils can more or less intuitively decipher the emotions of others through their behaviors. But they show a strong tendency towards individualism. In addition to that, students demonstrated a strong tendency towards individualism, both in the team spirit test and in the The Marshmallow one, where fifteen (15) of them accused their classmates of having eaten their chocolate.

5. CONCLUSION

This research has revealed a glaring deficiency in emotional intelligence among schoolchildren. This deficiency has repercussions on the understanding and the esteem of the other, generating a bad mood in the school.

That been said, can emotional education workshops fill the gaps in the ability of emotional intelligence among students? What impact can these workshops have on the academic performance of these students? Can they tool them up to face the ever-increasing stakes of today's life? The answers will be provided when the process of engineering emotional intelligence will be started in Moroccan primary school.
REFERENCES
6. Idem. 141