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An engagement-based school experience as a premise of Wellbeing

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Abstract

In the challenge of providing a quality education to all students, one of the main driving forces of change is the teacher and his/her attitudes; the need to address inclusion and participation of everyone therefore affects the teaching and the organization of the School.

In response to this –within the context of the formation of the European POSitivitiES project and based on the perception that students were more receptive after a session of yoga performed at a Navarre school– we evaluated the impact of practicing mindfulness on some key processes in schools: from activities inherent to the curriculum content to personal development. It originates in the dissemination of results between the teachers, at the classroom micro-system level and at the school micro-system level. We concluded that individual wellbeing, of the students and the teachers, improves relationships between components of the Educational Institution, improves commitment and engagement and allows pedagogical practices from the flow.

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1. Introduction

Quality Education was established as an objective in the Strategic Framework for Education and Training 2020 (ET2020) for the 2015-2020 cycle; two of the four European priority strategic areas and objectives established refer to promoting quality in education and wellbeing, since they are not considered objectives achieved by its predecessor, the ET2010 work program:

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- Improving quality and efficacy of education and training (Strong support for teachers, trainers, directors of teaching centers and other educational staff and Sustainable investment, quality and efficacy of education and training systems).
- Promoting equity, social cohesion and active citizenship (Inclusive Education, Equality, Non-discrimination and Promoting civic competences).

Addressing that improvement and effectiveness of education requires a change in behavior and school organization. Individual wellbeing, developed at a positive institution, is the cog necessary for a quality education, for a quality education system: An education where healthy students are motivated, where competent teachers use active pedagogies and work on relevant curriculum content, and under systems where good government and equitable allocation of resources ensure a Quality Education.

Based on these premises, we analyze the relationship between levels of mindfulness of the child and the skills involved in attention, working memory, sustained attention and emotional balance at a school in Navarre (Spain). This is to confirm or deny a “feeling” to enhance the practice of teaching.

2. Fundamentals. Well-being, implications for education

The objective at the school is the culture of psychological health, wellbeing, the impact is seen not only in academic results but also in physical and mental health, coexistence and the academic satisfaction of teachers and students. “*Building a learning environment as a social environment and not just physical is essential for the curricular praxis*” (Grundy, 1991, p.161).

The “expansion and growth” theory of B. Fredrickson (1998, 2001) states that positive emotions have an immediate effect on our cognitive abilities and the development of resilience. They also play an important role in the improvement of resources for overcoming adverse situations (Tugade, Fredrickson & Barrett, 2004). The child’s positive adaptation entails those positive emotions. However, the child’s positive adaptation depends, in part, on the degree to which the contexts of socialization are organized for optimal development. Baker and Maupin (2009) indicate in their works the direct relationship between academic satisfaction and warmth and trust in the interpersonal relationships providing emotional support between teachers, students and peers.

Therefore, wellbeing should be reflected in classroom programs and we should “train” the studies in these skills, designing relevant training objectives, timely initial assessment, development, formative assessment, and self-, hetero- and co-assessment. Likewise, the Center’s Educational Project should explicitly reflect this objective of wellbeing in relation to all academic agents.

In the academic day-to-day, teachers address wellbeing to varying degrees, within the framework of the current policy/legislation. Various studies verify the importance of attention to wellbeing and to the application of positive psychology in education (Furlog, Gilman & Huebner, 2009). At the micro-system/meso-system level, some experiences have been reported in Spain aimed at primary and secondary education (Arguís, Bolsas, Hernández & Salvador, 2010). Currently, applied research has been conducted primarily in the United States in secondary education (Boniwell & Ryan, 2012) and university education (Kurtz, 2011; Marks, 2011; Kim-prieto & Oriano, 2011; Kranzler & Gillham, 2006). Nevertheless, the scientific knowledge should be transferred to a greater extent to research-action in the schools (Scott Huebner & Hills, 2011). An example of school organization that pursues wellbeing is the project described in this article.

But, in a multidimensional system such as that of education, the different educational agents must also be mediators between policies and classroom pedagogy/practice to bring to it greater quality and equity.

Therefore, this mediation between policies and the classroom requires a deep reflection in the schools regarding quality. Quality, because of it comes from business models, does not have a model that addresses the wellbeing of teachers (the quality model pertains to the management team and goes no further), which clearly distinguishes between social quality and quality of development, between quality social and organizational quality. A thorough review of the different reference architectures beyond the classroom; at the *sayings level (how is it reflected in the vision and definition of operating educational quality at the center?), *doings level (how is it articulated in quality management currently implemented at the educational center?) and *relatings level (how is the policy transferred to classroom pedagogy/practice and the school organization?).

3. Wellbeing-based research-action

This research was conducted at C.P. Sarriguren, a seven-year-old school center. It is located in a suburb of new construction on the outskirts of the city of Pamplona. A center built for 650 students, with a new enrollment per academic year of more than 200 new students, with about a hundred teachers and a thousand alumni of different cultures and religions living nearby during the 2015-16 year; parents of the Center come from more than forty different countries and, in many cases, both parents are recent immigrants. In turn, the Center receives a high degree of students with late enrollment. The need to address the inclusion and participation of everyone therefore also affects the teaching conditions and the organization of the School.

At an organizational level, classes at C.P. Sarriguren are taught in all of the linguistic models existing in Autonomous Region of Navarre: Model G (all subjects in Spanish), Model B (all subjects in Spanish plus the subject of Basque language) and Model D (all the subjects in Basque with the exception of the subject of Spanish language).

The amalgam of programs and organizational formats that coexist at the Center, the existing overcrowding and the diversity of families and students require teaching and learning strategies that accommodate that reality and variety; to pursue a quality education that ensures personal and emancipating development for all students – it is from there that this project arises.

Participation in the training phase of the European POSitivitiES (Comenius Multicultural Project, 2012-2014) leads us to propose mindfulness workshops. The workshops we developed gave us a pleasant surprise: the “difficult” students showed a personal approach at the end of the session, when normally these sorts of activities are understood as having a certain informality. From this perception, work began with some regularity with groups A and B of the 4th grade (9-10 years old) of Model D; we wanted to see the influence of performing relaxation activities prior to undertaking different classroom tasks.

4. Objectives

In approaching this work, we wanted to give some answers as to how the climate of the center, the classroom and the school learning can be improved; how the engagement of a group, teachers and students, can be achieved in the development of educational processes.

The working hypothesis is that mindfulness can improve learning at the student and teacher level; in both cases, personal relationships and individual and group work are improved, the emotional climate of the classroom is improved and collective work is enhanced (Alonso, 2016, p.161).

The main objective in the research was to analyze the incidence of the practice in mindfulness of students, and to assess how yoga and mindfulness techniques contribute to the improvement of some cognitive functions (selective attention and sustained attention), support of self-knowledge (emotions, challenges and skills in a school context) and search for ways to regulate emotions and have empathy in personal, cognitive and social development.

5. Methods

5.1. Participants

The experimental phase was carried out in two 4th grade classrooms (9/10 years old), 15 students per classroom (experimental group). The other two groups of the fourth grade (9/10 years old) did not participate in any way in the Center Training (POSitivitiES) or in similar relaxation activities in the classroom (control group). Implementation of the activities was conducted by two teachers (A and B) to avoid possible interpretations subjective to a single observer.

5.2. Procedure

To achieve our objective, we proceeded with the relaxation of the class group; each group was recorded the first week after prior relaxation and another week without prior relaxation exercises. It resulted in the collection of data

about recorded activities corresponding, essentially, to competencies in Linguistic Communication, Mathematical Competence, Learning to Learn and Social and Civic Competence. The aspiration was to assess the variation in results after performing breathing exercises versus those groups that did not perform them.

The recording week with relaxation prior to each activity, corresponding teacher A or B observed and assessed the use of the relaxation exercise by the student, thus validating or not validating the subsequent records: whether he/she faces the exercise with interest and motivation, and whether he/she finds it easy to maintain focus during the exercise. Those cases where students are not sufficiently involved in the relaxation activities are omitted from the records. Thus, we avoid undesirable incidences in the subsequent data collection; with a minimum of 3 favorable items out of the 5 observed, it is considered an activity done by the student, which is used to validate subsequent records.

5.3. Measurement instruments and data analysis techniques

First, during first hour each day of the week, they performed cognitive exercises of *Memory*. For this test, 30 frames (images and text to contemplate linguistic memory and visual memory) are shown. For two minutes, students must retain the image and then enumerate.

Algorithms. For five minutes for each test (subtraction, multiplication and division), all possible operations are performed.

Subtractions: 6 points for each successfully completed transaction, or if applicable, 1 point for each partial operation (ones, tens, etc.)

Multiplications: 20 points for each successfully completed transaction, or if applicable, 1 point for each partial operation (multiplication of a number by a number, or a partial sum) or 2 points for error in the position.

Divisions: 3 points for each successfully completed transaction, or if applicable, 0-3 points for the unfinished ones depending on the proportion of steps that are performed; for every wrong division, we subtract 0.25 points; for every wrong subtraction, we also subtract 0.25 points.

Effective reading. First, we begin with a time trial silent reading of a narration [Editorial material Bruño <http://www.editorial-bruno.es/leficaz/principal.html>, N° words 479, Flesh readability formula (1948) I.F.L 70]. Subsequently, and by memory, 20 closed questions with three choices per item are put forth, alternating between direct and question-based reading: 25% of questions about logic inference, 25% about contextual information and 50% about direct data Information. Reading speed = number of words x 60 sec / reading time in sec and comprehension = [successes - (faults-1 / options)] x 100 / number of items; that are correlated with effective reading = reading speed x reading comprehension / 100.

After two breaks daily, records were made related to socialization, assertiveness and empathy, and about how conflicts are addressed.

Empathy. These records were made through a structured reflection questionnaire, 20 situations to which the students respond, referring to the different styles the students have of dealing with conflicts. The student must indicate the degree of frequency with which he/she is usually positioned in each of the 20 situations: often (5 points), sometimes (3 points), hardly ever (1 point). The different styles the students have of dealing with conflicts, are of different types:

- * Compete: you try to find out who started it or how it started, you make one party give in and apologize, or you tell them that you are going to tell the teacher...
- * Negotiate: you help them understand the other's point of view, you try to reach an agreement, you help them to decide what they can yield on...
- * Avoid: you leave the discussion and its interpretation in the hands of the teachers, you leave them to continue fighting as long as no one gets hurt...
- * Accommodate: you move them away from each other, you try to divert attention from the conflict...
- * Cooperate: you try to make everyone feel relaxed, you try to discover what the real problem is, you show them different alternatives so that they can choose.

Assertiveness. Cards depicting different moods at the same event are shown; the cards describe a common situation that is experienced in different ways depending on the relationship between the skills (high/low) and challenges (difficult/easy); this in some cases leads to boredom and in others to anxiety or joy. A student selects a card and acts

it out before his teammates so that they will guess the situation. Ideas about the reasons that caused the situation to turn out this way are discussed in a group manner. The emotions, skills and challenges of the scene they represent are discussed.

Proceeding by way of interpretive research, the obtained categories have a meaning that is derived from data obtained following an inductive process (Losada and López-Feal, 2003; Albert, 2006). Taking this into account, we previously defined the categories and units of meaning for each category, and these serve as a guide in the observation of the following:

- * Good strategies: Paraphrasing, reflecting the emotion, descriptive language of the facts, the use of silence ...
- * Bad strategies: does not respect the turn to speak, uses indirect speech or indirect propositions, avoids participating, and focuses exclusively on the facts...
- * Good questions: clarifying, which collect details about how they feel rather than what they do...
- * Unsuccessful comments: ridicule, or sarcasm, he/she lights up and turns back to what they have done...

6. Results

6.1. Memory

About 70% of the students who participated in mindfulness techniques improved their memory capacity results. The average increase is 3; The student who has the most significant increase in memory goes from remembering 7 objects to 14 ($\Delta 7$).

6.2. Algorithms

After the relaxation phase, we found that there was greater speed and more correct answers in algorithmic activities such as subtraction, multiplication and division.

Subtractions: a positive increase occurs in the variation for the total count of subtraction, averaging 6.67; the maximum improvement value is 15.

Multiplications: the variation after relaxation is equally positive. In this case, the variation is mostly homogeneous. The maximum increase is 31 points (equivalent to an operation and a half more), and the minimum is 1 (only one multiplication, or partial sum).

In several cases, the result of the test after relaxation did not change; these cases coincided with the students who earned the lowest scores. As tutors of the sample group, after three years of working with these groups, we interpreted the slight difference in the results coincided with students who acquired fluency in the algorithms later than the rest of their classmates.

Divisions: in the case of division, curricular content from the academic year, for many students in the sample, the algorithm was not fully internalized. It was not yet an achieved objective. Therefore, the number of exercises that some students performed was not sufficient to obtain strong results.

6.3. Effective reading

In general, relaxation improved reading speed results (an average decrease in times of 1 min. 56 sec.). It is not the same case for reading comprehension as only 17 of the 29 cases show improvement in the comprehension successes, but the remainder do not decrease with respect to the activity done without prior relaxation.

6.4. Empathy

In the record of empathy toward conflicts, students showed less competitive positioning after prior relaxation, the number of students who acted this way decreasing from 21% to 17% (focused on assigning blame). In turn, students' negotiating and cooperative attitudes increased from 21% to 24% in situations of conflict, help and support of mutual understanding of those involved. However, avoiding conflicts (14%) and/or the degree of accommodation

(21%), such as walking away or pretending it does not affect them, are attitudes that did not change with the prior relaxation exercises.

6.5. Assertiveness

The observation revealed significant variations in activities after relaxation; the change in volume, speed of speech and voice modulation (lower speaking volume, since practically all noises from papers, chairs, etc. disappeared), complete sentences and more expressiveness in contributions, etc. allowed participants to develop full discourse and be understood. The anxiety and level of aggression we recorded at some moments when performing the activity without prior relaxation, such as taking turns speaking, stepping on a classmate's arguments, etc. practically disappeared.

Some students developed a greater number of good questions. The near absence of offensive comments toward the asker of the question is significant, and especially among classmates when they participate in the discussion.

Regarding bad strategies, we continued to record competitive attitudes characteristics of the students' age, affecting how or when they started to feel that way. But they were not individualized to the classmate who represented it, but rather they suggested whys. When the activity was carried out without prior relaxation, they reached a single conclusion: to tell their parents or the teacher (they will be in charge). When the activity was carried out with prior relaxation, the students proposed autonomous strategies: better to get to it as soon as possible, if you are determined, you'll do something, etc.

This, in turn, affected the attitude of the teachers, in communication and listening with students, in sharing and analysis of activities. An important characteristic that emerged during data analysis was the more or less ease of our task as observers. The records were more complete in observations conducted with prior relaxation, and this allowed greater fluidity and effectiveness at the time of analysis of results by tutors A and B.

7. Conclusions

The cognitive characteristics identified during the development of optimal experience include high concentration and involvement, total absorption into the task, the loss of self-awareness and perception of high mastery and control. Relaxation improved their memory capacity. There is greater speed and accuracy in the resolution of algorithmic activities (It should be noted that, even when the number of operations performed did not increase in some individuals, the number of errors committed decreased significantly). And the reading speed improves considerably, comprehension in some case (The most remarkable outcome is that even in those cases where speed barely improves, prior relaxation activity does influence the successes of reading comprehension, obtaining more effective reading in both cases). Attending to relational-social elements such as empathy and assertiveness, increase the ability to communicate constructively in different environments, to show tolerance, express and understand different viewpoints, to negotiate with the ability to create confidence, and to feel empathy.

Judging from the quantitative and qualitative results that have been analyzed and our logbook of the research process, we can conclude that relaxation prior to undertaking activities at school has a positive impact on students with difficulties: more memory, fewer errors in activities, more effective reading, the teacher-student relationship improves, and it allows for integrating cultural differences in interpersonal relationships.

Working on mindfulness can improve learning for students and faculty. In both cases, personal relationships and group work improve, the emotional climate of the classroom improves and collective work is enhanced. Regarding our present experience, positive psychology produces satisfaction to experience reports depending on involvement, attention and affective situations. And if talking about flow, this is an optimal experience (Csikszentmihalyi, 1990).

But, if we want to work positively in school organizations, it is necessary to address the interrelations of the different levels of the reference architectures of the system (Kemmis & Grootenboer, 2008) and to ensure dynamic ecological interrelations. Those structures are enabled and limited by the different sayings, doings and relating (Kemmis & Grootenboer, 2008, p.57); it is from there that the students, faculty, management, families and community interact at a micro-, meso-, exo-, chrono- and macro- level (Bronfenbrenner, 1979).

In our case, presentation of the results obtained in the research has led to proposals for intervention at the classroom micro-system level (the demand for training came from the teachers themselves, reflected in the center

training for the next school year 2014-2015) and at the school micro-system level reflected in the Center's Educational Project that is currently being developed (addressing the relationship with all of the students and among peers). The center's families also asked to have these workshops for parents. So, it will be necessary, going forward, to address the meso-system level (teacher-parents) because we cannot ignore that this affects any activity carried out at the Center. Experiences that lead us to revise *sayings (to what extent wellbeing of and among teachers affect and impact the wellbeing of the students?) and therefore *doings: (to what extent does wellbeing of and among teachers affect and impact the students' academic results?). Currently, the Center's Educational Project is being drafted, which reflects the commitment of the Center/faculty/families to student development that addresses the different aspects that influence pedagogical practice based on positive psychology strategies: Mindfulness, Involvement, Engagement and Flow (Zufiaurre, 2016).

Educators must address the individual wellbeing of students and teachers. a balanced and harmonious wellbeing, that addresses *enjoyment and positive emotions *meaning and values *commitment and competence and *positive social relationships... and in our work at the school, at a positive school, where wellbeing is an explicit and committed objective with *counseling/monitoring of wellbeing *teaching-learning styles *strengths and values and *teacher training and support *with reflection on parameters of quality, in school organization and management... we can achieve quality education.

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