Chapter 7
Positive Psychology and Academic Performance: A Brazilian Initiative

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7.1   The Brazilian and the Institutional Contexts

From 1995 to 2002, a series of relevant changes occurred in the tertiary education in Brazil, such as public policies that aim at improving the quality of education and incrementing the number of places available in tertiary institutions. The Brazilian government, through the National Council of Education [*Conselho Nacional de Educação*] created the National Course Exam (*Exame Nacional de Cursos*) in order to evaluate tertiary education (Real, 2007). This was a pioneer educational initiative in the country that focused on evaluating available courses mostly based on the analysis of the exams' results. During that period of time, programs that have not met the desired standards have been at risk of being discontinued. These policies mainly affected private institutions, which consequently implemented diverse initiatives to improve the quality of the programs, in general, and the students' performance, in particular.

The institution where I have been teaching was affected in a slightly different way. This is a traditional tertiary institution, founded at the beginning of the twentieth century in Sao Paulo, which offers programs in Business Administration, Economy, Accounting and Trilingual Executive Secretary. Just like most tertiary institutions in the country, when National Courses Exam was implemented, this institution began to develop initiatives aiming at guaranteeing quality of the available programs. In 2002, this institution reached a very good quality status, with programs consecutive scoring with the highest grades at the National Courses Exam. However, the school began to suffer high rate of dropouts by that time.

As mentioned before, the policies implemented by the National Education Council aimed not only at improving the quality of tertiary programs but also at increasing the number of places available. This situation caused an excessive offer

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of places in tertiary education and consequently, this field of education increasingly became a competitive market. It did not take long before students realized that a few blocks away from the institution there would be another institution offering a similar program for a slightly lower cost.

Additionally, the levels of education quality achieved in our institution resulted in demands of greater efforts and dedication from students, particularly from those who previously have presented serious difficulty to follow the program's pace.

It took time to the team of our institution to fully comprehend the scenario. It was decided to ask students to fill-in a form when dropping out from the program. Among other topics, the reasons for leaving the institution were asked in that form. Once the responses were reviewed, it was found that financial difficulty was the main motive for dropping out tertiary education. Students revealed they could not afford paying for the tuition fee.

Considering that some information might be missing from those convenient forms, it was decided to replace them by face-to-face interviews. This new method allowed our team to finally understand the real reasons that had led a significant number of students to leave the institution: Low academic performance and feeling of not being able to follow the program.

This scenario required to take an immediate action to reverse the situation. As a consequence, the Phoenix Project was born.

7.2   The Phoenix Project

Concerned with the high levels of dropout presented in the institution, the Dean of Extension and Development – Dr. Fabio Appolinario – began to plan a new initiative aiming to reach the roots of students' low performance while maintaining the quality of the education achieved. In 2003, Appolinario founded the Educational Technologies Laboratory (LabTEd).

The LabTEd was a laboratory for research and application, closely related to the Department of Extension and Development. The LabTEd's main goal was to develop, to test and to implement processes and educational technologies that lead to a constant improvement on the educational and research quality of the institution. During the period this lab was functioning several projects were conducted, including the main one named: Phoenix Project.

The idea underlying the project was initially developed by professor Appolinario who then, invited me to coordinate its implementation. This decision was made, not only because I was a professor at the institution in that moment, but also because I was working on my PhD dissertation on Positive Psychology. This perspective served as the philosophical grounds for the Phoenix Project.

Before proceeding with project, it was evident the need to conduct preliminary studies and consider, additionally to the areas students need to work on, those factors involved in students' life that might have an effect on their academic performance and desires to continue with their tertiary education.

At that time, there was a consensus in the marketplace that, besides the technical competencies that companies would seek during their recruiting processes, there was a need to identify the so-called soft skills. That is, a set of personality characteristics, habits and individual attitudes that favor social interaction.

Another important aspect to consider was students' socio-economic profile that would place them in a fragile position in relation to their academic performance. Student from lower socio-economic backgrounds might reach tertiary education with certain learning deficiencies and scarce cultural references. Additionally, many of these students also need to work in order to fund their studies, a situation that leads them to attend to evening classes, tired after a full-time day of work. For the success of the program the institution was willing to implement, it was mandatory to address all these variables.

As enrollment in the Phoenix Project was voluntary and one of its aims was to improve academic performance, content-based actions were not taken. Students did not get tutoring or extra exercises from their regular courses as this might only make them feel more tired at the end of the day. The Phoenix Project was delineated as a student-training project aiming to improve academic performance, as well as promoting students' positive emotions. Besides this, the project also aimed at decreasing the rate of academic dropouts.

7.2.1 Project Framework

Since the beginning, Positive Psychology project was conceived as the central philosophy. At that time, several studies have demonstrated the importance of positive emotions on the increase of individuals' social and intellectual resources (Fredrickson, 1998), particularly on students' academic performance (Printich, 2003).

Although the structure of the project was previously defined, the final version was designed when we obtained a deeper knowledge of participants' profile, who initially were thought as students with learning difficulties. Accordingly, an assessment of the participants was conducted in order to better adapt the project to students' characteristics. Two tests were applied at this diagnostic stage: the D2 Test of Attention, developed by Brickenkamp, and the Ross Test of Higher Cognitive Processes.

A total of 42 students were assessed, regarding attention capacity we found that 49 % of the sample presented severe to moderate attention deficiency and a 16 % displayed moderate deficiency; while a 35 % did not present any intentional deficit.

However, the results that caught our attention were those related to the Higher Cognitive Processes test. A 75 % of the students who took the test could not properly establish abstract relationships; 71 % were not able to properly utilize deductive thinking; 52 % presented poor questioning strategies; 47 % could not clearly distinguish relevant from irrelevant information; and 36 % were not able to establish analogies in a satisfactory manner.

Based on this scenario, it was possible to understand not only the roots of students' low performance but also the magnitude of our challenge. After a few

meetings, our team agreed that the Phoenix project would be structured on three main pillars: socio-emotional, instrumental and cognitive.

The *socio-emotional pillar* aimed at improving student's relational capacities, by developing emotional intelligence as well as positive emotions. In this manner, we understood "positive emotions" as the ones that favor approximation, and therefore, living together with others, while the "negative emotions" lead to the opposite outcome (Fredrickson, 2001). Conceived as the main dimension of our project, the socio-emotional pillar was based on Positive Psychology research, especially regarding positive emotions (Fredrickson, 2001, 2002) and emotional intelligence (Tugade & Fredrickson, 2002).

The *instrumental pillar* focused on providing students with tools and instruments that could improve their academic performance and their role as student. This pillar includes studying techniques, time management, and manipulation of information received in the classroom, among other strategies.

The *cognitive pillar* was formed with the Taxonomy of Educational Objectives (Bloom, 1973) and aimed at developing attention, as well as eight other groups of higher cognitive abilities. It includes developing analogies, deduction capacity, evaluating missing information, establishing abstract relations, sequential synthesis capacity, analysis capacity, questioning strategies, analyzing relevant and irrelevant information.

Accordingly, we developed module with activities for each pillars. The methodology included lectures, discussion groups and practical exercises in which students were encouraged to participate.

7.2.2   Project Implementation

The first step of the project was implemented during the second semester of 2004 and helped a total of 42 students. Participants' recruitment was done through a simple registration and even though the program was promoted as an initiative for students with learning difficulties, there were no restrictions to participate. The only requirement was a mandatory attendance of 100 % of the meetings. As we believed the project would promote a better involvement of the student with the institution, we also set as a goal to reduce the number of dropouts.

In the first stage, 18 meetings of 2 h were held. As the institution required that our activities were suspended during the exam weeks, some modules of the program could not be completed and, in particular, the activities from the cognitive module could not be conducted. Consequently, in this first stage, the Phoenix project only developed the following activities:

- Individual Diagnosis (3 meetings);
- Socio-emotional Module (10 meetings);
- Instrumental Module (4 meetings);
- Program Evaluation and Conclusion (1 meeting).

Table 7.1 Means and standard deviations for academic performance

	Minimum value	Maximum value	Mean	Standard deviation
Mean grade P1	2.318	9.400	6.64901	1.305097
Mean grade P2	5.650	9.000	8.02141	0.750186

The factor that appeared to be a problem at that time becomes an advantage for this chapter. As only the activities from the socio-emotional module were developed – and the cognitive module was absent – the results obtained in this first stage of the project become clearly linked to the influence of positive emotions.

It is also worth mentioning that because it was not an academic research, the indicators chosen to verify the effectiveness of the project were: the academic performance before and after participating in the program; the index of dropout from the institution; and the results of the students' program evaluation. It was necessary to clarify this point as our interest centered on monitoring possible variations of students' attention and cognitive capacity.

7.2.3   Phoenix Project Results (1st Stage/Semester 2, 2004)

Regarding students' academic performance, as shown in Table 7.1 a comparison between the evaluation before the Phoenix program (P1) and after the project (P2) it was found a statistically significant progress on students' performance ($t=-7.973$; $p<=0.00$). Additionally, it was observed an important improvement on the evenness of grades' distribution of the sample as the *SD* reduced from 1.30 to 0.75.

Regarding the dropout index, among the students participating in the project, no dropouts were registered. Results were not limited to this stage of the project as they remained unaltered during the whole period in which Phoenix was implemented.

In relation to students' evaluation of the project, in the program's last meeting, students were asked to respond to an anonymous survey to assess the project as a whole. This survey was done in a questionnaire-format mainly composed by close-ended questions, but also allowed students to freely comment and give suggestions if desired.

In general, the evaluation of the Phoenix project was extremely positive, obtaining a score of 9 points on a scale ranging from 0 to 10. When students were asked about the importance that the Phoenix program had on their academic performance, 95.5 % of participants responded that it was *important* or *very important*. Moreover, when a similar question was formulated, inquiring students about the importance of the project on their lives as a whole, 95.3 % of participants responded it was *important* or *very important* while only 4.7 % evaluated it as reasonably *important*.

It is interesting to notice that, although students in general enjoyed participating in this program, a 77.2 % considered the performed activities as *difficult* or *very difficult*, and 22.8 % considered such activities as *fairly difficult*. Considering that

at this stage of the project the cognitive module was not developed, and the instrumental module was mainly composed by the simple presentation of tools – rather than the actual activities – for studying and knowledge organization, it is possible to conclude that those exercises where students had found difficulty were related to the development of positive emotions. In this manner, results show that positive emotions can be taken as one's natural ability, and therefore, those who intend to develop and work on positivity should pursue it with effort and dedication.

On the other hand, it is curious noticing that the difficulties faced by students were not enough to make them withdraw from the project or to make them feel relieved when the project was over. This scenario was different from the one we used to observe with students who had withdrawn from the institution.

When inquired about the duration of the program, 80.8 % of participants reported that it was *insufficient* and *somewhat sufficient*, and only 19.2 % of respondents thought that the time programmed it was *sufficient.*

The continuity of the project was another encouraging factor we found. When students were asked about their probable participation in potential extension of the program in the following year, 95.5 % mentioned they would *probably* or *certainly participate* on it, and 4.5 % of the sample was unsure about this. It is worth mentioning that no students said they would *probably not participate* in the potential extension of the project.

7.3 The End of Phoenix Project

Due to the great outcome, the Phoenix Project was also conducted the following year, but this time the complete version of the program was implemented, including the cognitive module. Students were increasingly more involved with the project and it was possible to clearly observe an improvement on their performance. Nevertheless, before we could finish evaluating this new stage, the institution went through a series of administrative changes and the new board decided to terminate all projects developed by the former administration.

Still, there was enough evidence for us to believe in the importance of the outcomes accomplished in a project framed under the Positive Psychology perspective.

The belief that the development of individuals' functional aspects is a key factor not only for the resolution of specific problems but also for the construction of a better society, led us to the foundation of Positive Psychology and Behavioral Institute (*Instituto de Psicologia Positiva e Comportamento, IPPC*), while the Phoenix Project was still being implemented.

At the end of Phoenix Project, the purpose of doing research and disseminating Positive Psychology principles in Brazil was still ongoing. Although much of our efforts aimed at the organizational world, it was possible to know, based on the results achieved, that we would still face other opportunities to apply Positive Psychology in the academic field. This is what actually happened in 2011.

7.4   The Rebirth of Phoenix: Other Applications of Positive Psychology in the Academic Context

Unlike Europe and the U.S., the majority of tertiary programs in Brazil have mandatory courses and a fixed curriculum. This means, in general, that there are not many opportunities to introduce specific content or topics not directly related to the area of application of the course.

Nonetheless, I was given the chance to teach a Positive Psychology course for undergraduate students at Trevisan Business School (*Trevisan Escola de Negócios*). Since its foundation in Sao Paulo in 1999, the Trevisan is well-known for its undergraduate and graduate Business Programs. Conceived as complementary activity, the Positive Psychology course was offered as an elective subject for the first time during the second semester of 2011, with duration of 80 h.

Unlike the Phoenix Project where several issues such as the dropout rate and students' low performance had to be overcome, this time, as the professor in charge I had the autonomy to develop a course in which the content was relevant to students' professional and personal formation. It was the perfect opportunity and for first time in the country, Positive Psychology was officially introduced in an academic program. As it was an elective course, we reached students from three different programs: Accounting Science, Business Administration and Marketing.

This course focused not only on discussing the fundamental principles of this scientific movement, but also on promoting exercises and practical situations in which students could develop their own positive characteristics and emotions. In addition, aiming at graduating future leaders to work for major organizations, we discussed case studies of positive organizations and institutions that shared the Positive Psychology principles.

It is important to note that since the beginning, we presented Positive Psychology as a multidisciplinary movement. We considered essential for our students to feel the freedom of appropriating the knowledge they acquired and being able of transferring it to their own areas of work.

In this course, besides performing exercises to develop positive emotions, we also aim at developing positive characteristics that promote human flourishing and well-being, which ultimately means, the promotion of students' own flourishing.

In this respect, the Positive Psychology course focused on working with personal strengths (Peterson & Seligman, 2004) and on developing an internal locus of control. Individuals' belief that they have control over their lives is an important and necessary feature in order to achieve well-being and to assume an active role in the construction of their personal project of happiness (Graziano, 2005).

The students were highly involved with the course and the activities developed. In addition, classes had a better atmosphere with more proximity among students. I confess, a little embarrassed, that for the first time in almost 30 years of teaching I had learned each student's name. Moreover, this environment brought me closer to the reasons that led me to teaching at the early age of 17 years.

Although it is not possible to say that our Positive Psychology course was the cause of a better students' performance, it worth mentioning that all the students that attended the course succeeded in the rest of the subjects taken in that semester.

Nonetheless, there was no doubt this course was responsible for the increasing interest in Positive Psychology in an institution traditionally focused on Business. The Board of Directors began receiving manifestations of appreciation from students who attended our course and these students spread the word to other students, in such a manner that we had an increasing number of people interested in taking the course in the following semester.

7.5   The First MBA in Positive Psychology in Latin America

Today, 10 years after the Phoenix Project was implemented, I better understand the path taken until Positive Psychology was able to obtain academic acknowledgment not only as a simple ramification of Psychology but also due to its contributions as a multidisciplinary discipline. In other words, it was necessary to firstly introduce it as a mere tool to increase academic performance – as done in the Phoenix Project – in order to able to offer an independent graduate course.

The excellent acceptance obtained by the positive psychology course as well as the increasing interest from the professionals trained by IPPC in expanding their studies in order to apply it in the marketplace, led us to another challenge: The creation of the first MBA in Positive Psychology in Latin America.

This MBA resulted from a partnership between the Positive Psychology and Behavioral Institute and the Trevisan Business School. This is a management program that focuses in training professionals and graduating leaders that, by applying the knowledge of the science of positive psychology, would be capable of transforming institutions in a place for human flourishing.

7.6   Final Considerations

When talking about human development, there are no juxtapositions. When pursuing ideal conditions, several times we are forced to settle what is actually possible. Unfortunately, Brazil fails to set an example of good education; therefore, each and every action aiming at improving its quality is always welcomed. Nevertheless, the urgent character of this improvement demands to take actions immediately. This scenario is one of the reasons why we believe that the best ways to achieve a better education in our country would be precisely, working with the professionals already immersed in the field of Education.

Additionally, if we consider that the desire to have better quality of life is a plausible goal for an increasing number of people; positive psychology is an excellent tool for the discovery and development of what people have best. Thus, Positive Psychology is not only an answer for education but also for the society.

I believe that each educator in the country should identify the opportunities that different contexts offer and afterwards, apply the knowledge acquired in 10 years of studies on Positive Psychology. This means that the work of a positive psychologist is – besides research – to identify opportunities to apply this knowledge in a way that the improvement of academic performance or the promotion of human flourishing is simply a matter of courage. The courage to dare.

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