Educational Quality from Participation and Teamwork in an Ecuadorian Educational Institution

Nanci Coromoto Barrios Briceño*, María del Carmen Barniol Gutiérrez

Education School, Liberal Arts Faculty, Espíritu Santo University, Guayaquil, 092302 UEES, Ecuador

Received March 9, 2020; Revised May 26, 2020; Accepted January 25, 2021

Cite This Paper in the following Citation Styles

(a): [1] Nanci Coromoto Barrios Briceño, María del Carmen Barniol Gutiérrez, "Educational Quality from Participation and Teamwork in an Ecuadorian Educational Institution," Universal Journal of Educational Research, Vol. 9, No. 4, pp. 734 - 740, 2021. DOI: 10.13189/ujer.2021.090404.

(b): Nanci Coromoto Barrios Briceño, María del Carmen Barniol Gutiérrez (2021). Educational Quality from Participation and Teamwork in an Ecuadorian Educational Institution. Universal Journal of Educational Research, 9(4), 734 - 740. DOI: 10.13189/ujer.2021.090404.

Abstract The educational quality is the most fundamental factor in every institution of education, and every level, because it determines high standards of learning and skills in the students. The educational quality was evaluated from an improvement plan based on participation and teamwork in a high school in Guayaquil, Ecuador. Through a quantitative and quasi-experimental study in two educative institutions, one control group and others experimental, the improvement plan was realized. Surveys were conducted in focal groups (teachers, parents and students), with questionnaires modified to EFQM model, before (pre-test) and after (post-test) the application of the improvement plan, to value the educative quality. The pre-test results show equal conditions in the perceptions of every group between both institutions (p > 0.05), while later, after the plan’s application, significant differences (p < 0.05) were observed only between pre-test and post-test of the experimental institution which evidences an improvement in the perceptions, which allows concluding that there is an improvement in the educative quality perceived by the educational community. This study, states and argues the approach of this two factors with an semi-experimental method before and after, with control and experimental institutions to confirm that the improvements plans based on participation and team work can provide more quality in educative environments, and also can stimulate the parent’s participation in this environment, and result in a better learning community, this motivates a collaborative culture. Given this, it is proposed as a method that can be a policy in educative institutions.

Keywords Social Participation, Educational Management, Improvement Plan

1. Introduction

Education is one of the main bases of the accelerated progress in society; however, society claims for education to be of excellent quality. Given this, the quality of education and its evaluation have become a priority all over the world, and when one currently speaks of quality in education, one speaks of a collective demand and commitment, and also of social responsibility, which leads to greater participation and teamwork[1], [2]. The United Nations Educational, Scientific and Cultural Organization (UNESCO) states that quality is the most important factor to judge the development of educational institutions[3]. Particularly for Latin America, one can point out how in Mexico efforts have been done to improve the educational quality with the joint participation of the members of the educational community associated to primary schools, with the goal of generating spaces which encourage the participation of citizens and more stimulating educational environments[4], [5]. However, these methods can be applied in a similar way to secondary education, increasing the educational quality at this level[6].

In Ecuador, the National Development Plan 2017-2021,
done by the Office of the National Secretary of Planning and Development[7], in its axis 1, related to the rights for everyone during all their life, seeks to guarantee a dignified life, with the same opportunities for all people, via a quality education. In this sense, education in the country must be assumed, besides as a human right, as a social duty, framed in an ideal context, meaning, a learning environment that besides content, focuses its attention in the formation of an integral, reflexive, critical and creative individual. Also, it is important to mention that from the perspective of the quality of the educational system, between the years 2017-2018, Ecuador was in the 86th place of 137 countries, being very far from Switzerland, Finland and Singapore, which occupy the first three places[8].

There is evidence that indicates greater educational quality is characterized by aspects such as teamwork for decision-making, focalized management leadership, curricular planning, high participation levels from the parents, efficient time management and effective support of the superior official institutions[3], [9].

For this reason, special attention has been given to the study of educational quality, considering that for that end, the uncertainty of its definition, which has given rise to conceptions that have allowed the arising of improvement proposals, which, in different contexts, seek to adjust to reality, given that they come from diagnostics which see this, and its needs as a starting point to elaborate, meaning, alternatives for educational change for quality [1], [10].

On the other hand, Hardianto[11] states that to promote good quality in educational institutions, hard work and communal commitment are needed; in other words, it’s a joint effort among the state actors and the educational community. In this sense, it indicates the need to promote a quality culture in educational centers.

From this, one derives that factors such as social participation and teamwork have been shown to have a positive influence in educational management[2], [12], and have, therefore, been considered elements that provide educational quality. To make quality education a reality, it is important to generate actions inherent to the different dimensions that define this conception, meaning, quality as a group of elements that are integrated among themselves and that produce improvements in the educational environment. Therefore, the objective of this investigation was to evaluate the educational quality from an improvement plan based in participation and teamwork, in a school in Guayaquil, Ecuador.

2. Methodology

Under the hypothesis that an improvement plan increases the level of educational quality in the school it is implemented in, a quantitative investigation was designed, with a semi-experimental design with equivalent group[13], in two educational institutions belonging to the Archdiocese Educational Network in Guayaquil, specifically U.E. Bartolome Garelli (control group) and Escuela La Consolata (experimental group). In a probabilistic population and representative sampling by conglomerates, applied to teachers-managers (control n= 22 / experimental n= 36), parents (control n= 172 / experimental n= 254) and students (control n= 109 / experimental n= 171) of secondary education, surveys were carried out via a questionnaire as instrument of data collection, adapted from the Excellence Model of the European Foundation for Quality Management (EFQM), which measures educational quality [14]. The instruments were validated by an Alfa Cronbach test, resulting in very high confidence levels, with values of 0.92, 0.94 and 0.87 in the teacher’s, parents’ and students questionnaires, respectively.

Every questionnaire presented closed questions with four answer choices, with points from 1 to 4 (Likert scale), so its average values allowed the assignment of a categorization that determines the perception of educational quality, specifically, very bad (1-1.75), bad (1.76-2.5), good (2.51-3.25), and very good (3.26-4).

The instruments evaluated different aspects according to the group, particularly on the teachers, in aspects such as contextual impact, results of the users, institutional communication, collaborators and resources, personnel results, environmental results, and shared leadership. On the other hand, for the parents, their perception toward leadership, planning and strategy, contextual impact, collaborators and resources, institutional communication and user satisfaction was evaluated. For students, their perception towards processes, participative leadership, educational services, besides planning and strategies was evaluated.

The instruments were applied in both institutions (control and experimental), in two opportunities, one at the beginning (Pre-test) in September 2017, before the application of the improvement plan done only in the experimental group in the execution period October 2017–June 2018, and after there was a final application (Post-test) in July 2018.

The improvement plan was structured in three master lines, (1) Organizational Re-Engineering, via which effective and affective communication was worked on; (2) Pedagogy, which was directed to the teaching staff, via workshops about didactic strategies, and also sensibilization; and (3) Participation Leadership, addressed to the educational community (teachers, parents and students), via meetings that had teamwork as an axis and central stimulus. All these activities were directed by a Psychologist and the researchers of this investigation.

For the data analysis, descriptive statistics were employed (median ± standard deviation), besides inferential statistics via t student tests, to compare the medians of the tests between the control and experimental group from each actors (teachers, parents and students) to observe if there were differences between the perceptions
between institutions. Also, comparisons were done between the pre-test and post-test for every evaluated group and institution, to validate the investigation’s hypothesis. All the analyses were done via the SPSS program, version 15.

3. Results

For the teacher’s group, the results of the pre-test not show significant differences between the control and experimental group, in general \((t = 1.17; \ p = 0.249)\) and for each one of the indicators used \((p > 0.05)\), finding a perception of very good quality, highlighting the contextual impact, besides the collaborators and resources as factors with the highest punctuation (Table 1).

In the case of parents, the pre-test values not presents significant differences between the control and experimental institution at the general level \((t = 0.86; \ p = 0.386)\), also on none of the used indicators \((p > 0.05)\). On average, there was a good quality characterization (Table 2).

Table 1. Pre-test values for the teachers’ group in each of the institutions (control and experimental) evaluated in Ecuador.

| Factors                        | Pre-test | t-test | p     |
|--------------------------------|----------|--------|-------|
|                                 | Control  | Experimental | t | p     |
| Contextual impact               | 3.42 ± 0.46 | 3.44 ± 0.41  | 0.09 | 0.925 |
| User results                    | 3.12 ± 0.56 | 3.50 ± 0.045 | 1.70 | 0.095 |
| Institutional communication     | 3.29 ± 0.5  | 3.37 ± 0.42  | 0.71 | 0.479 |
| Collaborators and resources     | 3.45 ± 0.37 | 3.44 ± 0.44  | 0.69 | 0.492 |
| Personnel results               | 3.28 ± 0.61 | 3.25 ± 0.45  | 0.24 | 0.808 |
| Environmental results           | 3.17 ± 0.65 | 3.42 ± 0.49  | 1.67 | 0.101 |
| Shared Leadership               | 3.17 ± 0.64 | 3.30 ± 0.45  | 0.91 | 0.369 |
| Teacher’s perception            | 3.27 ± 0.38 | 3.39 ± 0.31  | 1.17 | 0.249 |
| Categorization                  | Very Good | Very Good    |       |

N: sample amount; \(\bar{X}\): average; SD: standard deviation.

Table 2. Pre-test values for the parents’ group in each of the institutions (control and experimental) evaluated in Ecuador.

| Factors                        | Pre-test | t-test | p     |
|--------------------------------|----------|--------|-------|
|                                 | Control  | Experimental | t | p     |
| Leadership                      | 3.08 ± 0.66 | 3.10 ± 0.79  | 0.27 | 0.789 |
| Planning and strategy           | 3.22 ± 0.52 | 3.21 ± 0.64  | 0.07 | 0.948 |
| Contextual impact               | 2.96 ± 0.66 | 3.02 ± 0.72  | 0.87 | 0.386 |
| Collaborators and resources     | 3.01 ± 0.56 | 3.11 ± 0.61  | 1.85 | 0.065 |
| Institutional communication     | 3.01 ± 0.66 | 3.00 ± 0.69  | 0.19 | 0.847 |
| User satisfaction               | 3.02 ± 0.76 | 3.13 ± 0.73  | 1.55 | 0.121 |
| Parents’ perception             | 3.05 ± 0.53 | 3.10 ± 0.58  | 0.86 | 0.393 |
| Categorization                  | Good     | Good     |      |

N: sample amount; \(\bar{X}\): average; SD: standard deviation.

The student group, particularly, showed a categorization of good quality on the pre-test, although with lower values among the three evaluated groups; in fact, their value was of \(2.77 ± 0.43\) and \(2.78 ± 0.52\) for the control and experimental facility, respectively, highlighting that there were no significant differences \((t = 0.09; \ p = 0.925)\) (Table 3).

The statistically significant non-differentiation of the values obtained on the pre-test in each of the focal groups evaluated between the educational institutions, shows equality of perceptions of both educational communities as a starting point in the investigation process.
After applying the improvement plan in the experimental institution, the results of the post-test evidenced statistically significant differences between the educational institutions, in all the studied groups. Particularly, the teachers in the experimental institutions showed a value of 3.57 ± 0.15, which is meaningfully higher (t= 5.51; p < 0.01) than the one obtained by the control institution of 3.29 ± 0.24 (Table 4).

The parents showed a statistically significant difference (t= 7.23; p < 0.01) between the evaluated institutions, showing a value of 3.44 ± 0.45 and a very good category for the experimental institution, in comparison with the value of 3.02 ± 0.60 showed by the control institution, which kept a categorization of good quality (Table 5).

Table 5. Post-test values for the parents’ group in each of the institutions (control and experimental) evaluated in Ecuador.

| Factors                  | Post-test t-test | t-test |
|--------------------------|------------------|-------|
|                          | Control n = 145  | Experimental n = 187 | t | p |
| Leadership               | 3.11 ±0.65       | 3.57 ± 0.45       | 7.48 | <0.001 |
| Planning and strategy    | 3.08 ±0.66       | 3.54 ± 0.42       | 7.80 | <0.001 |
| Contextual impact        | 2.98 ±0.68       | 3.33 ± 0.52       | 5.38 | <0.001 |
| Collaborators and resources | 2.96 ±0.62      | 3.41 ± 0.46       | 7.63 | <0.001 |
| Institutional communication | 2.99 ±0.70      | 3.39 ± 0.62       | 5.38 | <0.001 |
| User satisfaction        | 2.99 ±0.81       | 3.40 ± 0.68       | 5.08 | <0.001 |
| Parents’ perception      | 3.02 ±0.60       | 3.44 ± 0.45       | 7.27 | <0.001 |
| Categorization           | Good             | Very Good         |

N: sample amount; X: average; SD: standard deviation.

The post-test of the students in the experimental institution showed a value of 3.10 ± 0.46, while the control group obtained a value of 2.92 ± 0.44, both with a characterization of good quality; but, with significant differences between these groups (t= 3.87; p < 0.001). In both institutions there were greater perceptions of quality in the participative leadership and strategic planning factors (Table 6).

According to the data, a trend toward equality could be observed between the studied institutions for the pre-test, while there were significant differences between them for the post-test, with greater values in the experimental institution. In fact, when a comparison of the tests was done for each institution and each group, there were significant differences only in the experimental institutions, for the teachers (t= 5.05; p < 0.001), the parents (t= 8.34; p < 0.001), and students (t= 6.87; p < 0.001) (see Fig. 1).

Thus results suggest, that the investigation’s hypothesis may not be rejected, because the improvement plan increased the educational quality perception of the La Consolata institution (experimental group). On the contrary, the U.E. Bartolome Garelli, not having the implementation of an improvement plan, showed similar perceptions on the study period.
Figure 1. Average values of pre-test and post-test for every group (teachers, parents and students) in the control and experimental institution. The lines above the bars indicate the standard deviation. The asterisks (*) indicate significant differences (p < 0.001) between the tests.

4. Discussion

The results evidence significant differences between the teachers’, parents’ and students’ pre-test and post-test in the experimental institution, which shows that the improvement plan caused changes in the perceptions of educational quality from the general educational community, which was not observed in the control...
institution. This is also the result not only of the work of the teachers, but a reflexive work between the actors of the educational community, as stated by Martínez et al.[1] that it goes beyond teaching performance, and it needs all the actors who participate in the teaching-learning process, from the management, to the teachers, parents and students, everyone assuming their role and an active participation to reach the common goal, which is the greatest educational quality possible.

The improvement plan, from its three master lines, allowed for a change in orientation from the educational approach that the experimental educational institution had been applying; where maybe, the rupture of the repetitive learning and low participation that was being done, and that are common in the current Latin American educational context[15], allowed for the improvement of their experience, that at least from the reflection and perception of the actors involved, showed notable improvement, although not to its maximum potential.

In fact, the participative management has shown improvements in the teaching-learning processes from an institutional context, and following an improvement plan, as Marin et al.[16] point out, the dynamics between participative management, the improvement plan and educational quality strengthens the probability to reach organizational development via intervention strategies that may be applied to the educational community. From that, one can derive that an improvement plan carries with it a process that seeks to improve the institutional characteristics, and to boost the actions that would normally be carried out; this may explain why in the control group there was no change in the perception of the involved actors, because they were not subjected to any kind of change, as far as the habitual actions of the institution.

By comparing the perceptions between the actors in one institution before and after the school period happened, it was evident that the improvement plan is the answer to the differences obtained in the perceptions of the actors belonging to the educational community, this agrees with what is stated by Pareja & Torres [17], who highlight a symbiotic relationship between the improvement plan and educational organizations, because it is not possible to improve educational institutions without taking into account clear decisions for the development and maintenance of the educational process.

The importance of social participation within education is centered in its strengthening of democratic elements, for decision-making and co-responsible actions; therefore schools constitute the ideals spaces to develop and stimulate a democratic, joint work culture, representing, thus, an integral education in students. From that, there cannot be a stimulus to social participation if there is no teamwork, and this is an element of great importance[2]. In this sense, these elements seem to have stimulated a perception of better educational conditions in La Consolata school, as an experimental group of this study.

Particularly, the parents and students of the La Consolata school showed better perceptions after the application of the improvement plan, according to aspects such as leadership, planning and strategy, collaborators and resources, user satisfaction, processes and educational services; all these being relevant aspects of the educational processes[18].

Contrary to this, Marin et al.[16] evidenced that there are gaps between the application of improvement plans and education normativity in Colombian schools, from the perception of the educational community, highlighting the need of a participating culture addressed to decision-making in school management.

The approach of greater levels of participation and teamwork of the educational community strengthens the conception established at the end of the 20th century, of an educational formation with an integrating function of social and personal development aspects, by teaching common values[19]. Therefore, the integral quality comes from the multiple factors needed for the human being to function in the current society, where it is increasingly necessary to establish personal connections to fulfill objectives, either from the point of view of multi-disciplines or simply from the point of view of a collective development.

Related to the previous point, the strengthening of the studied elements, evidenced from the perspective of those participating in the educational process in La Consolata school, shows a multi-dimensional or global perspective, given that it intended to influence people, resources, processes and results, all oriented to a greater educational quality[20].

In conclusion, the improvement plan applied to La Consolata school, as an experimental group, evidenced an improvement of the institutional educational quality, seen from the perception of the actors involved in the educational process (teachers, parents and students), who received orientation, not only in the process of teaching-learning, but they participated in the process, via reflections and inductions which allowed the stimulation of the communication and participant leadership-teamwork processes, while pedagogically, changes were made to the didactic strategies, which generated positive changes in the students. In this senses, it is recommended to apply these types of plans in the educational institutions, to adapt to their own contexts, and increase their educational quality.

This type of integral planning that involves the joint educational community, can strengthen not only the educational quality of institutions, but also stimulate the participation of parents as intermediate actors of the educational process, given that they represent an emotional and personal bond for each student, and by making them participants of this process, said bond is stimulated, and also, a collaborative culture at a social level is being generated, resulting in greater educational integrity.
REFERENCES

[1] Martínez-Chairez G. I., Guevara-Araiza A., Valles-Ornelas M. M, “El desempeño docente y la calidad educativa,” Ra Xinmhai, vol. 12, no. 6, pp. 123–134, 2016, https://www.redalyc.org/pdf/461/46148194007.pdf

[2] Matos de Rojas Y., Mejía M. M., Barreto Y. A., Vethencourt M, “El trabajo en equipo para promover la participación de los actores sociales,” Telos, vol. 20, no. 2, pp. 226–247, 2018, http://ojs.urbe.edu/index.php/telos/article/view/2730

[3] Bellei C., Poblete X., Sepúlveda P., Orellana V., Abarca G, Situación Educativa de América Latina y el Caribe: Hacia la educación de calidad para todos al 2015. Santiago de Chile: OREALC/UNESCO, 2013.

[4] CONAFE, Trabajemos juntos por un futuro mejor: Manual operativo para instructores comunitarios Modelo de participación de padres y madres de familia. México DF: CONAFE, 2011.

[5] Dirección General de Desarrollo de la Gestión e Innovación Educativa, Orientaciones para activar la participación social en las escuelas de Educación Básica. Quito: Secretaría de Educación Pública, 2010.

[6] Ducoing P. Rojas I., “La educación secundaria en el contexto latinoamericano: consideraciones a partir del vínculo política educativa-currículum,” Rev. Mex. Investig. Educ., vol. 22, no. 72, pp. 32–56, 2017, http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1405-66662017000100032

[7] Secretaría Nacional de Planificación y Desarrollo, “Plan nacional de desarrollo 2017-2021: Toda una Vida.” Senplades, 2017.

[8] World Economic Forum, “Competitiveness Rankings. Global Competitiveness Index 2017-2018.” WEF, 2019, [Online]. Available: http://wef.ch/2weVUt8.

[9] Sandoval A., “Equidad y calidad educativa: Un análisis multinivel de los resultados educativos,” presentado at the Séptimo foro de evaluación y calidad educativa, México, 2006.

[10] Salas J. C., Lucin R. J., “Evaluación de la calidad del servicio educativo para determinar el nivel de la deserción estudiantil en la Unidad Educativa “Capitán Pedro Oscar Salas Bujaña,” Maestria, Universidad Católica de Santiago de Guayaquil, Guayaquil, Ecuador, 2013.

[11] Hardianto H., “Conducting Quality Culture in Educational Institutions,” J. Ilm. Peuradeun, vol. 7, no. 2, pp. 257–268, 2019.

[12] Perales F. de J., Escobedo M. M., “La participación social en la educación: entre propuestas innovadoras y tradición educativa,” Rev. Electrónica Invest. Educ., vol. 18, no. 1, pp. 69–81, 2016, http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1607-40412016000100005

[13] Hernández R., Fernández C., Baptista L., Metodología de la investigación, Sexta edición. México DF: McGraw-Hill, 2014.

[14] Mediano C., Losada N., “El modelo de excelencia en la EFQM y su aplicación para la mejora de la calidad de los centros educativos,” Educ. XXI, vol. 8, pp. 35–65, 2005, http://espace.uned.es/fez/eserv/bibliuned:EducacionXXI-9EA87D36-EFD2-CD48-F660-9CDBBEA174B6/Document o.pdf

[15] Correa de Molina C., “Auto-organización curricular en el contexto de la emergencia de una ética global: formación del estudiante y calidad de la educación,” Rev. Logos Cienc. Tecnol., vol. 1, no. 2, pp. 86–94, 2010, https://www.redalyc.org/pdf/5177/517751799007.pdf

[16] Marin F. V., Riquett M. J., Pinto M. C., Paredes A. J., “Gestión participativa y calidad educativa en el contexto del Plan de Mejoramiento Institucional en Escuelas Colombianas,” Opción, vol. 33, no. 82, pp. 344–365, 2017, http://repositorio.ucu.edu.co/handle/11323/1915

[17] Pareja J., Torres C., “Una clave para la calidad de la institución educativa: Los planes de mejora,” Educ. Educ., vol. 9, no. 2, pp. 171–185, 2006, https://educacionyeducados.unisabana.edu.co/index.php/eye/article/view/669

[18] Escobarjala A., Arnaiz P., Giménez M., “Evaluación de las fortalezas y debilidades del proceso educativo en centros de infántil, primaria y secundaria desde una perspectiva inclusiva,” Rev. Complut. Educ., vol. 28, no. 2, pp. 427–443, 2017, http://193.147.26.104/handle/10952/3228

[19] Comunidad Económica Europea, "Libro Blanco sobre educación y formación en la Unión". Luxemburgo: CEE, 1995.

[20] López R., “Hacia unos centros educativos de calidad: Contexto, fundamentos y políticas en la gestión escolar”. Madrid: Secretaría General de Educación y Formación Profesional del Ministerio de Educación y Cultural, 2000.