



REVISTA

CÁTEDRA

Retos y logros de la aplicación de grupos interactivos en una comunidad de aprendizaje

Challenges and achievements of the implementation of interactive groups in a learning community

Bolívar Villarreal-Yazán

Unidad Educativa Antisana, Quito, Ecuador

bolivar.villarreal@educacion.gob.ec

<https://orcid.org/0000-0002-7603-4077>

Verónica Maila-Álvarez

Universidad Central del Ecuador, Quito, Ecuador

mvmaila@uce.edu.ec

<https://orcid.org/0000-0002-4139-7636>

Helen Figueroa-Cepeda

Universidad Central del Ecuador, Quito, Ecuador

hfigueroa@uce.edu.ec

<https://orcid.org/0000-0002-6305-487X>

Elizabeth Pérez-Alarcón

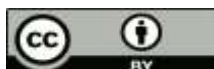
Universidad Central del Ecuador, Quito, Ecuador

eyperez@uce.edu.ec

<https://orcid.org/0000-0002-7739-5931>

(Received: 01/12/2020 Accepted: 15/12/2020; Final version received: 07/01/2021)

Suggested citation: Villarreal-Yazán, B., Maila-Álvarez, V., Figueroa-Cepeda, H. y Pérez-Alarcón, E. (2021). Challenges and achievements of the implementation of interactive groups in a learning community. *Revista Cátedra*, 4(1), 54-77.



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

Resumen

La presente investigación nace de la necesidad de evaluar los logros y retos respecto a la implementación de una nueva estrategia metodológica educativa propuesta en el Ecuador. Los objetivos que se plantearon fueron: 1) Evaluar la aplicación de los Grupos Interactivos como estrategia metodológica de aprendizaje. 2) Determinar las dificultades que afronta la institución en la fase de implementación. 3) Establecer los logros alcanzados. Este trabajo de tipo descriptivo y cualitativo considera como caso de estudio a la Unidad Educativa Antisana, institución ubicada en un contexto rural del Ecuador. Los instrumentos de investigación aplicados fueron la entrevista semiestructurada dirigida al rector y grupos focales a docentes, estudiantes y voluntarios. Los ámbitos de indagación convergieron en la gestión administrativa institucional, cualidades del docente, aplicación de la metodología de grupos interactivos y desempeño de los voluntarios. Los principales logros alcanzados fueron diálogo igualitario, transformación y solidaridad, como principios del aprendizaje dialógico, además del liderazgo estudiantil y la potenciación de la zona de desarrollo próximo. Se advirtieron dificultades en algunos estudiantes, docentes y voluntarios evidenciadas en la falta de empoderamiento, superficialidad de las actividades instrumentales y escasa participación, respectivamente. Los retos generados de esta primera experiencia giran en torno a la consolidación de la estrategia a través de la interiorización del enfoque de los grupos interactivos. Es necesario proponer actividades colaborativas e integrar a otros actores sociales en calidad de voluntarios. Aspectos que permitirán fortalecer la inclusión y la cohesión social.

Palabras clave

Actuaciones educativas, aprendizaje dialógico, didáctica, grupos interactivos, inclusión, innovación

Abstract

The present research was born from the need to evaluate the achievements and challenges regarding the implementation of a new educational methodological strategy proposed in Ecuador. The objectives were: 1) To evaluate the application of Interactive Groups as a methodological strategy for learning. 2) To determine the difficulties faced by the institution in the implementation phase. 3) To establish what has been achieved. This descriptive and qualitative work considers the Antisana Educational Unit as a case study, an institution located in a rural context in Ecuador. The applied research instruments were a semi-structured interview with the rector and focus groups with teachers, students and volunteers. The areas of investigation converged on institutional administrative management, teacher qualities, application of the interactive group methodology, and volunteer performance. The main achievements were egalitarian dialogue, transformation and solidarity, as principles of dialogic learning, in addition to student leadership and the empowerment of the area of proximate development. Difficulties were noted in some students, teachers and volunteers evidenced in the lack of empowerment, superficiality of instrumental activities and low participation, respectively. The challenges generated from this first experience revolve around the consolidation of the strategy through the internalization of the interactive groups approach. It is necessary to propose collaborative activities and to integrate other social actors as volunteers. Aspects that will strengthen social inclusion and cohesion.



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

Keywords

Educational actions, dialogic learning, didactics, interactive groups, inclusion, innovation.

1. Introduction

The Interactive Groups (IG) constitute a methodological strategy based on the principles of dialogical learning. This strategy has been implemented in some Latin American and European countries as an alternative to solve educational problems. Among the difficulties detected are: problems of coexistence, exclusion of students, scarce co-responsibility of the educational community and low academic performance. Based on the success obtained in other countries, in 2017, the GI were implemented in Ecuador as part of the Learning Communities (CdA) at the level of Basic and Secondary Education. The Antisana Educational Unit (UEA) was selected as a partner of the communities for the implementation of the ILs in their first phase. Therefore, the purpose of this study is to evaluate the results of this first experience in terms of achievements and difficulties.

The IGs base their success on educational results that transcend the academic sphere. In this regard, Ordóñez and Rodríguez (2016) express "interactive groups favor the learning of contents, relations and solidarity among students and with teachers, participation and cooperation in group work" (p. 151). The importance of this educational action is reaffirmed, since an environment of social interaction is created in the classroom. The teacher-student relationship takes a back seat and the different social actors are the new protagonists. Iglesias et al. (2013) point out that the GI "... has meant the opening of the institute's boundaries to the family and the educational environment, producing a more significant learning by bringing the center closer to the frame of reference of the students' learning experiences" (p. 69). The social actors promote the diverse competences of thought, communication and coexistence. The active participation of the educational community in the school, consolidates learning that acquires more sense and becomes more significant for the student. This is possible in a learning community where interactive groups are nourished by the most diverse experiences.

Another fundamental benefit of the application of the IGs is inclusion. This concept marks the seal of identity of the IGs, based on their heterogeneity. Its conformation is centered on this criterion, thus guaranteeing, through dialogue and interaction, the concretion of the inclusive approach. Castro et al. (2014) state that consideration should be given, for example, to "... gender, level of learning, cultural origin, affinity..." (p. 175). The purpose is to consolidate a work team with the widest diversity of experiences, opinions, thoughts, feelings and knowledge. The mere fact of being part of a group, of interacting in it and having your opinions taken into account makes this strategy achieve its intention, to include.

Despite the benefits that the execution of the IGs represents, its implementation as a new methodological strategy implies challenges. These challenges are mainly related to the involvement of all community members, the design of instrumental activities and the extra time required to implement the strategy. Chocarro and Mollà (2017) express that the work with GI requires "... a good planning of the calendar and to count, if possible, with a great number of fixed volunteers. This would be ideal, since such a structure is complicated in centers that do not receive as much help" (p. 64). This fact is possibly attributed to the lack of commitment of social actors, who are not used to participating directly in school activities. On the other hand, Ordoñez and Rodríguez (2016) point out that "a lot of time and effort must be dedicated to organizing the groups, designing the activities, and often the time spent working in the center is not enough" (p. 153). There is no doubt that entering



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

into a new educational strategy demands time, effort, and dedication that not all actors are willing to experience

Therefore, it is important to evaluate the application of the IGs in the UEA as a particular case of study of a qualitative nature. The objectives are to establish what has been achieved in the implementation phase of the IGs and to identify the difficulties faced by the learning community during their implementation. These results will allow the UEA to rethink actions in future experiences, in order to improve school coexistence and consolidate learning. Since this work is a private study, one of the limitations it presents is that it prevents generalizations from being made on the basis of the results obtained. However, the findings found can be a reference for other institutions that are starting this experience.

In this context, the present article contextualizes the educational institution and describes the Learning Communities and Interactive Groups. The main benefits of the implementation of the Interactive Groups are mentioned, as well as some of the difficulties involved in their execution and work related to them. The materials and methods used in the investigation are detailed, as well as the results and conclusions that are derived from the experience of the incorporation of the IGs in the educational unit.

2. Context of intervention

Context of intervention The UEA, Jatun Yachana Huasi, which in Spanish means Big House of Knowledge, belongs to the Community of Tolóntag-Marco, Parish of Píntag, Metropolitan District of Quito-Ecuador. Its geographical environment places it in the buffer zone of the Antisana Ecological Reserve. The population segment is made up of mestizos, the majority of whom are of indigenous descent. The adult and older members use their mother tongue, Kichwa, for colloquial interaction. Their main occupations are farming, small livestock and beekeeping enterprises, family gardens and handicrafts. These activities alternate with jobs in the city, focused on construction and electricity. In recent years, the young population has joined university studies and currently a new generation of professionals has emerged in various areas, most notably education.

The UEA is made up of the rector, ten teachers and 215 students. The institution offers educational services in the sub-levels of Higher Basic Education and Unified General Baccalaureate. It also has the Basic Education Project for Youth and Adults (EBJA) implemented in 2018.

On August 1, 2019, the UEA became part of the CdA project through the education area of Grupo Faro (Ecuadorian independent research and action center) and the Ministry of Education of Ecuador. For the implementation of the project, a process of induction was carried out with the different members of the educational community under the direction of the Grupo Faro. The accompaniment was the responsibility of the Educational Advising team, a body attached to the Ministry of Education. Of the seven Successful Educational Actions (AEE) that support the CoAs, the institution decided to work with the IGs and literary gatherings.

The first phase of the IG project was executed in January 2020. This process was applied after a consensus with the teaching team, as a strategy applicable to the closing of Quimestre I, corresponding to the 2019-2020 school year. According to the calendar, the academic day was scheduled for one week



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

3. Related concepts

3.1 Learning communities

Learning Communities is a social transformation project that starts in the school and expands to the entire community. Its essence lies in the participation of family members and volunteers in school decisions and activities. In this context, it is of utmost importance to review the concepts of Learning Communities, Dialogical Learning and Successful Educational Actions.

In an approach to the first concept, Community of Research on Excellence for All (CREA, 2018a.) points out that "a Learning Community is a project based on a set of successful educational actions aimed at social and educational transformation" (page 5). Human beings are eminently social. Therein lies the importance of the actors and the school contexts and their environment consolidating significant learning that identifies them with their community. It is there, in the community, where the strength of the interaction is reaffirmed, sustained by a deep predisposition to learn in complicity with all its actors.

The interaction of the community achieves a resignification of its paradigms, always looking for adaptations to these new systems. In this respect, Flecha et al. (2003) state "... the development of this project implies not adapting to the unfavorable conditions of the environment but transforming them" (p. 2). We can see how this synergy of the social actors, their environment, their culture, their encounters and misunderstandings linked by the interaction, propitiate new environments. It is in this new environment where learning is enhanced.

Picardo et al. (2005) corroborate the previous paragraph, stating that:

CdA, is an ecological and integral vision of learning, which implies not only construction, but also deconstruction and reconstruction, from a multidimensional perspective of the new knowledge society, aiming and betting on real learning environments assembled in dialogical interaction; it is a new current that is based on methodologies based on collective problem solving, experiencing solutions from diverse points of view without these being exclusive, and above all making creativity and innovation possible (p. 51).

In this sense, the synergy of these experiences is strengthened in the dialogue and problem solving proposed by the teacher. He becomes a sort of constructor of social architectures. This new paradigm is the one that is revitalized through the development and strengthening of learning styles and intelligences.

The knowledge society is reaffirmed in the formation of required profiles within an increasingly demanding socio-economic context. According to Ottone and Hopenhayn (2007), already in the educational field they are more precise in enunciating and ratifying what they say when they refer to the fact that "education that prefigures the functions of the future should tend to generate: capacity for abstraction, development of complex and interrelated systemic thinking, ability to experiment and capacity for collaboration, teamwork, interaction with peers" (p. 15). It follows that the imaginary of this new environment must possess much more creativity than docility or order. The social essence of the human being, in this process, cannot be consolidated without a primordial gravitant, the community. Group empathy, collaborative work and self-recognition occur in this space.



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

The CoAs base their objectives on the imperative need for the student to enhance and strengthen their abilities, skills and cognitive, practical and evaluative competencies. This would allow the discussion to focus on social problems, giving way to possible solutions that would assign the right to a dignified life. As cited by Flecha et al. (2003), the CoA "is a project that is directed especially at those centers with the most deficiencies, problems of inequality and poverty, in which external conditions seem to point more toward school failure and exclusion" (p. 4). The approach must be eminently formative and inclusive and the strategy dialogical, with emphasis on the school with the help of the family and the community. In this way social and economic gaps would tend to be minimized.

The concept of Dialogical Learning is based on the principles of the CoA, with an interactive approach. Aubert et al. (2008) describe how dialogical learning is generated, supporting by way of definition, the components whose basis are the principles of it

Dialogical learning occurs through egalitarian dialogues, in interactions in which cultural intelligence is recognized in all people. These interactions are oriented towards the transformation of previous levels of knowledge and the socio-cultural context in the search for success for all. Furthermore, dialogical learning occurs in interactions that increase instrumental learning, favor the creation of personal and social meaning, are guided by principles of solidarity, and in which equality and difference are compatible and mutually enriching values (p. 167).

We warn that the connotation of the concept of Dialogical Learning goes beyond the communicative fact, since its foundation is based on the interactions of the social being. This, when framed in a socio-cultural context, is signified and resignified. In this way, they consolidate themselves as beings who feel, learn, transform themselves, recognize, create and give meaning to themselves and their environment. This being the case, it detracts from all interaction that affirms power relationships and the weight of the inequitable social structure. On the contrary, it emphasizes the formation of empowered human beings in the concepts of solidarity, equality and social transformation.

Now then, as it was already expressed, a CoA is sustained in the dialogic learning and at the same time for this one to materialize it is necessary that seven principles are fulfilled, which in summary and according to CREA (n.d.) are:

Egalitarian dialogue: the strength is in the arguments and not in the hierarchy of the speaker. It is listening with respect and speaking with sincerity.

Cultural intelligence: it includes academic, practical and communicative knowledge; all people have the capacity for action and reflection.

Transformation: education as an agent for transforming reality through interaction.

Creation of meaning: Learning that starts with interaction and the demands and needs of the people themselves.

Solidarity: solidarity participation of all people in the community in the school's educational project.

Instrumental dimension: learning the fundamental instruments for inclusion in today's society.

Equality of differences: the same opportunities for all people (page 16).



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

With this epistemological support, the educational space is reached. For the implementation of the model, the so-called AEE are used, which are educational strategies that promote academic performance, coexistence and solidarity. The AEE with which a CdA concretizes its objectives in the school are: interactive groups, dialogical gatherings, tutored library, formation of families, educational participation of the community, dialogical model of prevention and resolution of conflicts, and dialogical pedagogical formation. All of them are based on interaction. The IG, by its dynamics, is perhaps one of those that harmonizes all the principles of dialogical learning. From there, the intentionality of the description of the application of this strategy in an educational experience.

3.2 Interactive groups

The IGs constitute one of the innovative educational strategies contemplated within the Learning Communities project. It is one of the ESAs that have been applied most frequently in educational institutions. According to Andrés Reina (2016):

... more and more centers are developing this type of grouping in their classrooms, since research shows that they are giving great results. The positive results are not only in a numerical or academic sense, but also, and even more importantly, many improvements are obtained at the level of coexistence, motivation and social skills (page 17).

The educational practice denotes that in the classroom in many occasions priority is given to the transmission of information. The educational task must develop, enhance and strengthen communication skills, skills for better human coexistence and naturally cognitive skills. Hence the importance of working on the skills and abilities that allow the consolidation of these competencies in the students in the different spaces of inter-learning.

The following lines describe in greater detail what the IGs are, what they consist of and what the role of the participants is.

3.2.1 ¿What are interactive groups?

There are two conceptions regarding the GI concept, one based on the organizational structure of the classroom and the other, somewhat broader, seen as a didactic practice. Thus Andrés Reina (2016) states "it is a way of organizing students within the classroom, forming small groups of 4 or 5 components each" (p. 13). Oliver and Gatt (2010), for their part, emphasize the value of IGs by pointing out that "... they are one of the most successful forms of classroom organization in Europe in overcoming school failure and coexistence problems" (p. 279). Within this same conception, CREA (2018b) states that "Interactive Groups are a form of classroom organization in small, heterogeneous groups and with a redistribution of available human resources" (p. 15). It is noted that the three sources combine in that the IGs are a form of organization of the students in the classroom. The most evident contribution is given in the intentionality, when it is stated that school failure and coexistence problems are the ends to be worked on. At the same time, we are already talking about the number of members and the inclusive approach.

With a broader vision, Castro et al. (2014) express that "the interactive groups transfer the principles of dialogical learning to the classroom, which means a substantial change with respect to the traditional way of teaching classes, but also with respect to other non-traditional forms of grouping students" (p. 175). Under this thought, the IGs are seen as the means that allows the development of a collaborative learning, between pairs. This process



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

counts on the contribution of each of the participants, since all of them start from their cultural experience and project themselves to the same objective. In this pedagogical experience, the principles of dialogical learning and the rupture of the classic way of structuring a class are already established. This strategic leap allows the development of learning through interaction in new forms of community

3.2.2 ¿What do they consist of?

IGs have a structure that adheres to four elementary steps. CREA (2018b), summarizes them in the following: organization of small work groups; assignment of an adult to each group; execution of the assigned activity in each group and under the accompaniment of the adult; rotation of groups to a different activity and with a different adult (p. 16).

These four steps are detailed with the contribution of other authors. With respect to the formation of the working groups, it is very important that they be small, with 4 to 5 students, and heterogeneous. Castro et al. (2014) state that the members should be sought to present the most varied characteristics in all possible settings. Among the aspects to be considered are "... gender, level of learning, cultural origin, affinity..." (p. 175). The more diversity among students, the better, because this condition of heterogeneity ensures that no student feels isolated by any condition whatsoever.

An adult is appointed to each group, who is also referred to as a volunteer or tutor. This person can be any member of the learning community, close or not. Castro et al. (2014) propose as volunteers "grandmothers, grandfathers, mothers, fathers, older brothers and sisters or other relatives, friends, or social agents of the environment" (p. 175). The participation of adults outside the neighborhood or from contexts distant from the learners, such as university students, is not ruled out. It follows that every citizen committed to the future of society is welcome to participate directly and actively in the educational process.

Volunteers do not need any requirements for their participation. In this regard, the cited authors point out "... it is unnecessary for the tutors of small groups to know about the content that the students work on in class: that is what the teachers are there for" (p. 175). Of course, their empathy with authorities and teachers plays a very significant role in achieving the learning objectives. In addition, under this undemanding environment, the volunteers' performance is sought to be spontaneous and free of fear.

The duration and nature of the activities must be taken into consideration. Castro et al. (2014) point out that "in the classrooms where the interactive groups are carried out, it is common for the group-class to be divided into 4 or 5 small groups that carry out tasks of about 15 or 20 minutes with the adult tutor" (p. 176). With respect to the type of activities, the same authors indicate that it is necessary to "establish teaching-learning strategies oriented to the instrumental dimension of learning, with the purpose of enabling them to respond to the demands that will be placed on them in the information society" (p. 178). Therefore, the importance of bringing properly planned actions or exercises into the classroom is inferred. The proposed activities should not be limited to reinforcing the cognitive aspect, which is ultimately the least interesting area within the purpose of the application of the IGs. On the contrary, students should be challenged to solve the problems posed through their decision-making skills.

On group rotation, Oliver and Gatt (2010) point out that "interactive groups favor, at the same time, the dynamic rotation of various instrumental learning activities in a single



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

session, so that the entire student body (not just the most advantaged) ends up doing all the activities scheduled for that session" (p. 282). In itself, the rotation of tasks and volunteers energizes the educational process by expanding the fields of learning and interactions in different settings

3.2.3 ¿What is the role of the participants?

The correct execution of the four steps mentioned above are the basis for the successful implementation of the IGs, so each participant must know and fulfill his or her responsibilities. This team is made up of the teacher responsible for the subject, volunteers and students.

The role of the teacher as indicated by Andrés Reina (2016) is summarized in the planning of the learning process, assessment and evaluation in the management of the IGs:

As for the teacher's role, it is aimed at coordinating the activity and organizing the responsibility that each one will have to face. It is also the teacher's task to watch over the development of the contents, both the academic ones and those that refer to the skills that are intended to be acquired or promoted. Select the contents to work on, design activities, organize the groups in a heterogeneous way, share these activities with the people who will collaborate in the classroom, attend to the needs that arise, serve as extra support to the students who need it and at the end of the session, make an evaluation with the volunteers and students (p. 14).

While the role of each participant is important in the development of IR, the leadership role of the teacher as an educational professional needs to be emphasized. The educator knows his or her students, their characteristics, interests, strengths, and weaknesses. Based on this knowledge, he or she is the right person to channel the activities, as well as to optimize the resources with technical criteria.

The volunteer or tutor is responsible for the operational and logistical environment, especially establishing communication channels between team members. According to Rodríguez (2012):

The volunteer, who has previously received training, does not play the role of an expert, but is responsible for encouraging dialogue, ensuring that they have understood the task, making the work in the groups more dynamic, avoiding attitudes of isolation and getting everyone involved in solving the task (p. 72).

This social actor is consolidated as a fundamental support within the IGs. His experience as a head of household, leader, micro-entrepreneur, entrepreneur and student makes him a mediator. The profile of the volunteer allows for spontaneous interaction from other levels of expectation.

The students have the commitment to actively collaborate in the fulfillment of the assigned tasks. Castro et al. (2014) emphasize that it is "... the students themselves, through cooperation and dialogue with their peers, who resolve the difficulties that arise" (p. 175). This educational experience applied as a pedagogical strategy in the classroom reaffirms the concept of CoA. The interaction of its actors makes new synergies possible, which are



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

translated into a wide range of skills and abilities. This benefits directly the student segment, and indirectly the volunteers and teachers who, in this dialogical experience, strengthen inter learning.

3.3 Benefits and limitations of the application of Interactive Groups

The IGs as part of the active methodologies of the Learning Communities generate multiple benefits. The diversity of interactions among the actors that this methodological strategy demands, allows the development of cognitive and attitudinal skills and fundamentally promotes social skills. As stated by Ordóñez and Rodríguez (2016), "interactive groups favor the learning of contents, relations and solidarity among students and with teachers, participation and cooperation in group work" (p. 151). This strategy contemplates the student's holistic development, since it promotes, in addition to cognitive skills, the strengthening of social skills. These skills are indispensable for the individual to develop effectively in the community to which he or she belongs.

The IGs, being made up of small heterogeneous groups as a fundamental requirement of the same, allow the principle of school inclusion to be fulfilled. In traditional education, students with special educational skills, of different ethnic origin or of a different socioeconomic status than most of their peers are relegated, undervalued and even discriminated against. As a solution to this problem, the IGs promote inclusive education, this statement is corroborated by Iglesias et al. (2013):

Traditional teaching methodologies are tremendously limited when faced with a varied student body. How can we serve everyone, how can we get everyone to work and learn, and how can we get everyone to work and learn together? The answer that has been betting on, and where the current predominant educational policies point, is segregation: grouping students by curricular level or taking them out of the reference classroom according to their difficulties to give them a response that can often be given in the classroom in a more effective and inclusive way by applying more inclusive methodological strategies such as interactive groups (p. 65).

Therefore, IGs are an excellent alternative for incorporating students with special educational needs (SEN) into everyday school work. Under the principle of inclusion, students who participate in IGs learn to be more tolerant, to respect diversity of opinion and to show empathy. In addition, students learn to work collaboratively according to their skills and abilities. According to Valls and Kyriakides (2013), all members of the group contribute significantly. No member is left behind and rather high expectations are maintained for everyone, and even the need to make curricular differentiations from those considered different is reduced (pp. 24-25). The IG strategy can significantly reduce the need for curricular adaptations. Group members support their peers who have difficulties and even under this scheme of working can excel in developing other skills.

The application of IGs also emphasizes the development or enhancement of cognitive processes. Thanks to the interaction between equals and assertive communication, understanding is improved and topics are reinforced that individually would require more effort. This fact is mentioned by Valls et al. (2016), "the interactions give proximity to the explanation, develop communication skills, generating multiple cognitive processes. In this way, what has been learned is consolidated, and the levels of understanding and learning are increased" (p. 21). The IGs, by allowing dialogue between equals, favor the development of intellectual capacities and even improve academic performance. Thanks to the dynamics



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

of this strategy, the barriers of inequality and exclusion to which especially at-risk groups are subject are reduced.

An additional benefit that is worth highlighting in relation to the application of the IGs is the consolidation of the educational community. The role of the parent, who is generally the volunteer, takes on greater importance. Iglesias et al. (2013) state that:

The implementation of the methodological proposal of the interactive groups has meant the opening of the institute's limits to the family and the educational environment, producing a more significant learning by bringing to the center the frame of reference of the students' learning experiences. The teachers create channels of communication and exchange with the volunteers and así the educational community is strengthened in an active and motivating way (page 69).

The presence of the volunteers in the IGs favors communication and interaction in the educational community. Volunteers are a source of motivation as well as a contribution to the diversity of experiences and cultural richness that they can bring to the group. In addition, because they are adults, they can help guide and resolve potential conflicts in the group. The IGs are without a doubt an excellent way to energize the process of teaching and learning, making it more active, attractive and inclusive, strengthening the educational community.

Despite all the benefits of IGs, there are some limitations to their application. One of these limitations is related to the participation of the volunteers, especially with parents who belong to the school level where less commitment is observed. In the research conducted by Ordoñez and Rodríguez (2016) it is highlighted that "one of the limitations of this research is the training and collaboration of volunteers. On many occasions, when they fail, it is necessary to reorganize the dynamics of GI on the fly" (p. 153). There is no doubt that if there is no commitment on the part of the volunteers when participating in the strategy, the teacher will not be able to comply with the planned activities. Furthermore, they will be forced to restructure the groups by making them larger, which contradicts the methodological proposal.

Another of the limitations in the implementation of the IGs is the great amount of work demanded by the teacher. As Andrés Reina (2016) mentions, "not all teachers in an educational center are willing to innovate in their classrooms. Innovation entails the extra work of knowing the needs of each student, studying their needs, adapting learning, etc." (p. 48). Under this premise, some teachers are not interested in incorporating new strategies into their educational practice. In addition, inexperience may lead the teacher to propose tasks that are typical of individual work or that do not involve a challenge for the students. According to Álvarez (2016), the proposed activities should "... be of review, to strengthen the processes of resolution of exercises in the main areas involved, always instrumental, and should in turn pose a certain challenge in their resolution, to stimulate the maximum development of the students" (p. 134). The proposed activities should represent a challenge for the students. In this sense, teachers require a good training process and accompaniment in the implementation of the IGs. If the activities to be developed in the implementation of the strategy are not carefully planned and designed, this experience will not transcend the ultimate goal, which is the transformation of the educational community



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

4. Related work

Since the IGs are an alternative, inclusive and participatory teaching strategy, it is appropriate to briefly review works whose results support their success. Works are described at the level of Europe, Latin America and Ecuador.

In the research work *Analysis of the interactions between students and various adults in successful educational activities: Towards the inclusion of all*, developed in Spain, the objective was to analyze the interactions that are generated from the IGs and dialogical literary gatherings. In addition, it was verified how these strategies favor the creation of inclusive learning environments. The study was of a qualitative nature, carried out in two educational institutions and focused on students with SEN. The results include the identification of three types of interactions: overcoming learning difficulties, creating new learning opportunities, and interactions that favor the participation of students with SEN. It was concluded that the analyzed SEN promote inclusion, generate learning diversity and promote cognitive challenges (Garcia et al., 2016).

The study conducted by Zubiri et al. entitled *Inclusion, Participation, and Collaboration: Learning in Interactive Groups* executed in Spain was aimed at exploring the opportunities generated by IGs in the learning of English as a second language. Through a qualitative approach, the information obtained in three different educational institutions was analyzed. Among the main results it is mentioned that IGs encourage collaborative interactions, promote inclusion and participation of all students. In conclusion, the study points out that the IG strategy creates favorable conditions for learning English or other languages as a foreign language (Zubiri et al., 2020).

The research work carried out by Álvarez Comunicación, entendimiento y aprendizaje en grupos interactivos is developed in two schools in Spain and one in Brazil. Its objective was to determine the interactions in the communicational field that are generated between children and adults when working in the classroom through interactive groups. It is an ethnographic study based on the case study method. The analysis involved the subjects of language and mathematics for the two Spanish schools and language for the Brazilian school. The three schools are based on conditions of social exclusion. The results revolved around communication, understanding and learning. In conclusion, it is pointed out that the IGs develop the social skills of dialogue and agreement, significant learning and values (Álvarez, 2017).

Among the works at Latin America level, it is mentioned the research on Interactive Groups in the classroom and the increase of the learning results in language in a vulnerable school carried out in Chile. The study incorporated GI in the first grade classroom in the subject of Language. Its objective was the determination of the increase of the learning results in that area. It is a quantitative study whose results showed a significant difference between the pre-test and the post-test. The significant difference is marked in reading comprehension and language use, but not in the elaboration of texts. Nevertheless, it is concluded that through the application of the IGs, there is an improvement in the development of language in reading comprehension, text elaboration and language management (Núñez et al., 2017) In Ecuador, Creamer, the current Minister of Education, conducted the research "Transformation of the School" in the framework of the implementation of learning communities in Ecuador. The work aims to understand the implications for education of the implementation of the CoA model. While the project has been developed in thirteen



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

educational institutions, follow-up was done in two schools in the Sierra and Costa regions. The study was born out of the need to increase the participation of members of the educational community and the possibility of involvement of their estates. Facts that could be achieved through the establishment of dialogical relationships that would promote the quality of learning, inclusion and social cohesion (Creamer, 2019)

5. Methods and materials

The research has a qualitative approach and applies the case study method. The steps developed are described below:

1. Location of the study area. The research focused on the UEA located in Píntag-Tolóntag, in a rural area of the canton of Quito.
2. Selection of the sample. The rector, five teachers, five students from the BGU and five mothers participated in the study.
3. Design and application of the research instruments: Design and application of the research instruments: The techniques applied to collect information were semi-structured interviews and focus groups. The interview was directed to the rector of the educational institution and the focus groups were directed to teachers, students and volunteers. The script of questions for both the interview and the focus groups was related to the dimensions: institutional administrative management, teacher qualities, application of the IG methodology, achievements of dialogical learning and volunteers' performance. In each focus group the participants were identified through their own codification. For teachers, the coding [D] was used, assigning the number according to the order of intervention. The same criteria was applied for the coding of students [E] and volunteers [V].
4. Data processing. Once the research instruments were applied, the interview and focus group transcriptions were made. Then the codes were created and the respective quotations were selected. This information was recorded in a matrix that was in turn exported to the program Atlas ti. With the help of the program, a semantic network was developed for each dimension, in which the type of relationship between the codes was established.
5. Analysis and discussion of results. On the basis of the matrix of relevant codes and citations, together with the semantic networks, the theorization and discussion of results was carried out. These were compared with similar researches related to the experience in the application of the IGs. In addition, information from related concepts was taken as reference. Finally, the conclusions of the study were elaborated.

6. Results and discussion

DIMENSION	CODES	RELEVANT QUOTATIONS
Institutional administrative management	Motivation [D, E, V]	"It always strengthens the motivational aspect" [D2]
	Motivation and Satisfaction [A]	"The rector put all his enthusiasm" [E4]
	Socialization [A, E, V]	"We all knew how we should support this project" [V3]
	Participation [A, V]	"He is very interested in the project. He's always there to keep an eye on things" [E2]
	Empowerment of authority [D, E]	"If the graduate was training us" [V1]
	Commitment [D]	
	Organization [A, E]	
	Implementation [A, E]	
	Follow-up [A]	
	Leadership [A]	
	Cooperative attitude [A, D]	"We are always correcting ourselves, we are helping ourselves" [D1]
	Solidarity attitude [D, E]	"They are willing to give their best" [V5]
	Teaching disposition (A, D, E, V)	



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

Teacher Qualities	Cooperative attitude and teacher empowerment [V] Teacher empowerment [A, D, E] Teaching commitment [A, D] Teacher Leadership [E] Teacher Motivation and Leadership [V] Teaching motivation and creativity [V] Teacher Empowerment and Leadership [V]	"95 of 100% of the team joined, empowered" [A1] "They were looking for a solution or trying to fix that, always with a good attitude" [E2]
Application of the Interactive Groups methodology	Teacher counseling [V] Heterogeneous grouping [A, D, E, V] Assignment of one volunteer per group [E, V] Diversity and creativity of activities [A, V, D] Group Rotation [V] Large group formation [D] Difficulty in forming heterogeneous groups [D] Planning challenge [A, E] Evaluation of the activity [V] Activities with cognitive focus [A, D, E] Time management [A, D, E, V] Difficulty in meeting deadlines [D, V] Challenge in the application of the methodology [A, D]	"It was required that the groups be formed with gender equity ... and within the groups as such should be immersed students with educational needs" [A1] "All the groups were already organized with six or seven students." "They also gave us exercises from previous exams" [E5] "It brought new challenges to us in understanding how this methodology was to be developed" [D1]
Dialogic Learning Achievements	Egalitarian dialogue and the instrumental dimension (E) Instrument Dimension [A, D, E, V] Creation of meaning [D] Student Motivation [D] Cultural Intelligence [A, E] Egalitarian dialogue [A, D, E, V] Transformation [A, D, E] Solidarity and equality of differences [E]. Equality of differences [E, V] Solidarity [A, D, E, V] Solidarity and egalitarian dialogue [D, E] Student Leadership [D, E, V] Student willingness [E] Next development zone [E] Lack of empowerment of some students [E, V]	"I learned to listen to other people, to hear their opinion, to help each other" [E2] "I learned that we can achieve incredible things with the union of our peers" [E4] "You discovered bus leaderships that you were really saying and he is leading the group? [D1] "I worked with a colleague of mine who has a different capacity ... that colleague is eager to learn ... it was nice to be able to listen to him and know the way he thinks" [E1] "Some people were kind of confident and didn't study, they didn't help" [E3]
Volunteer Performance	Fulfilling the role of the volunteer [A, D, E, V] Operating function [A] Role of mediator [D, E, V] Commitment to the institution [V] Volunteer empowerment [D, V] Volunteer motivation [D, E, V] Empathy with the teacher [A, D, V] Empathy with students [E] Willingness to continue in the process [A, V] Lack of commitment from some volunteers [D] Non-compliance with the role of mediator [D].	"I helped them to review questions 1, 2 read so they know what to put" [V1] "They supported us in the part of the organization..." [D5] "They didn't let us ... play games, or just think or copy ... they were very concerned about us" [E2] "I would like to participate again" [V1] "... to put myself for two days in the shoes of the graduates and it is not easy" [V5] "We did not have 100% parent participation" [D2]

Table 1. Dimensions and codes with relevant quotations. A= Authority, D= Teachers, E= Students, V= Volunteers. The numbers 1 to 5 indicate the order of participation.

As shown in Table 1 under the dimension of institutional management, teachers, students and volunteers recognize the fundamental role of authority in the implementation of IR. The rector awakened and strengthened the motivational aspect by transmitting his enthusiasm in each of the stages of the process. All participants from the educational community received socialization and training on the dynamics of the strategy, as well as the role that each one should play. Leadership is rescued as an important code, which implied as an authority, involving the whole institution within the project, urging for the immediate implementation.

In similar experiences Alvarez (2016) expresses that it is indispensable "... to have a 'training, support and evaluation team' that contributes to place the good practices of the interactive groups..." (p. 134). In this sense, it is worth highlighting the role played by the institutional authority, since its leadership and empowerment qualities allow it to motivate



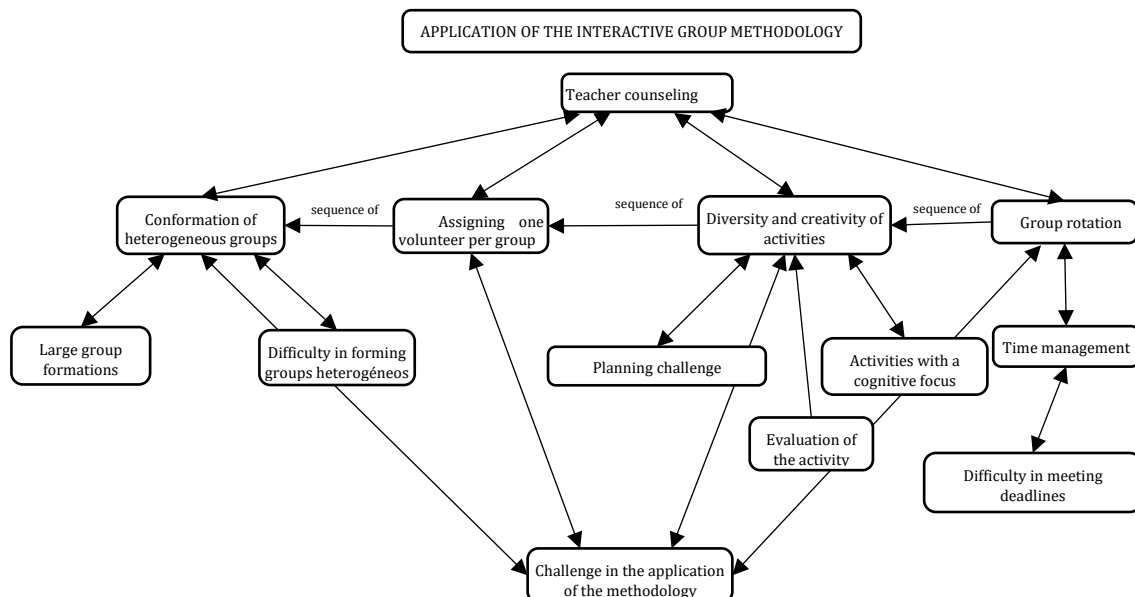
[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

and direct the work team. The good predisposition of the team is not enough; the accompaniment and support of those who are leading the institution is always indispensable.

In relation to the dimension of teacher qualities, registered in Table 1, the code of teacher empowerment stands out. According to what was expressed by the participants in the research, empowerment was evidenced in the adequate management of the theoretical base of the strategy. The teachers showed conviction and direction of the different operative and technical activities, and assumed with good predisposition challenges, giving the best of themselves. Other important codes constitute the cooperative and solidary attitude, which was reflected in the support given among them, by sharing experiences that nourished the development of the strategy. As one teacher stated, "We are always trying to exchange all the good and bad things that happen to us, we are always correcting ourselves, we are helping each other, we are trying to help each other" [D1]. In addition, they demonstrated their attitude of solidarity with the students by attending to their requirements in a timely manner.

Another of the qualities evidenced in the teachers, is the leadership, which is reflected through the codes motivation and creativity. Attitudes that were evidenced through their dynamism and enthusiasm, promoting the creation of a school environment conducive to learning. Additionally, some teachers showed initiative in proposing innovative activities.

The attitudes expressed by the teachers in this research coincide with the role of the teacher required for the implementation of the IGs. The teacher must be a leader in coordinating and organizing the activities to be carried out before, during and after the implementation of the strategy. In summary, CREA (2018b) points out that the role of teachers in the IGs implies the organization and definition of the groups and the preparation of activities. In addition, it constitutes a guide for volunteers, resolves conflicts and even supports individual needs (p. 22). Therefore, there is no doubt that part of the success in the implementation of the IGs corresponds to the predisposition and role that the teacher plays in the application of the strategy



Licencia Creative Commons Atribución 4.0 Internacional (CC BY 4.0)

Figure 1. Application of the Interactive Groups methodology

Regarding the application dimension of the IG methodology, as shown in Figure 1, it was developed in four steps. These are evident in the codes: formation of heterogeneous groups, assignment of one volunteer per group, execution of diverse and creative activities, and group rotation. All these steps are coordinated and advised by the teacher. Antagonistic aspects in the conformation of heterogeneous groups and the execution of instrumental activities stand out. In addition, they reflect difficulties in the planning and application of the methodology.

Based on what is expressed in the interview and focal groups projected in Table 1 under the application dimension of the IG methodology, the conformation of the groups was characterized by heterogeneity and inclusion. The number of members varied between five and seven. The activities proposed in some subjects such as Mathematics, Physics, Chemistry and Entrepreneurship were mainly of a cognitive nature. The team of volunteers was made up of parents and legal representatives. In the execution of the IGs, each group of students was under the responsibility of a volunteer. Within this process the rotation of both volunteers and activities was promoted.

It is evident that the condition of heterogeneity and inclusive approach of the groups was met. This is how Oliver and Gatt (2010) express "this form of inclusive grouping of students consists of the distribution of students in small heterogeneous groups within the same classroom (p. 282). However, they do not fit the parameters for small groups, as the recommendation is not to exceed five members. The structuring of small groups guarantees the participation of all, since their points of view and actions are taken into account and they are involved, a fact that is not noticed in groups whose number is greater.

The cognitive activities proposed by some teachers contradict the guideline established in the methodology. Castro et al. (2014) point out that "teaching-learning strategies should be established that are oriented toward the instrumental dimension of learning, with the purpose of enabling them to respond to the demands that will be made on them in the information society" (p. 178). The perceived richness of this strategy lies in the strengthening of instrumental learning, anchored to a sequence of predetermined processes that must be fulfilled in a session. In the institution's experience, this aspect is only partially fulfilled. The activities planned by some teachers did not lead to significant learning



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

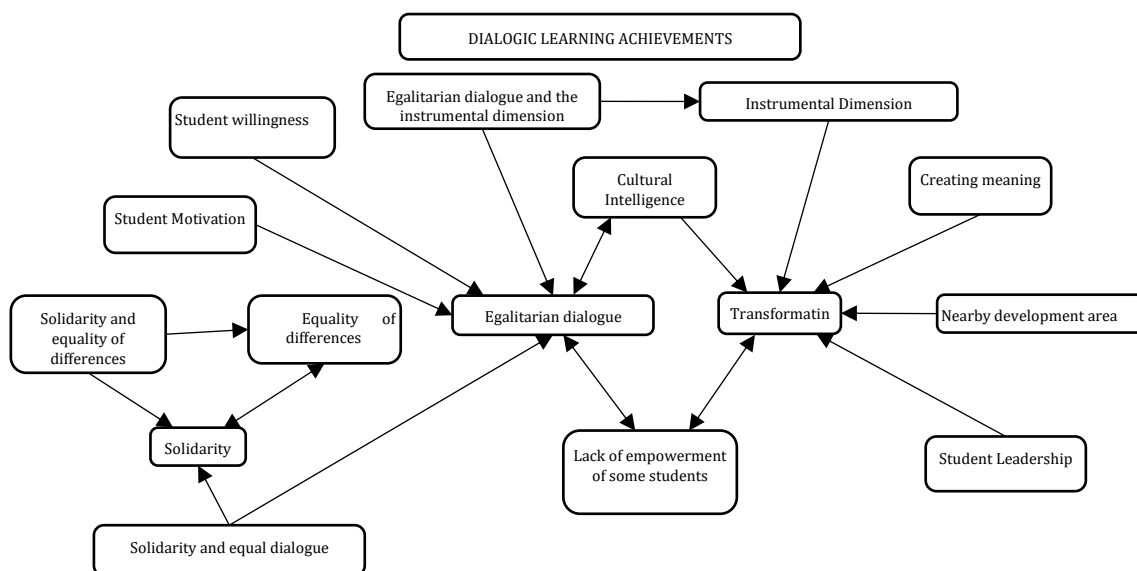


Figure 2. Achievements of Dialogical Learning

The achievements dimension of dialogic learning, figure 2, is directly related to the research topic. Therefore, we proceed to detail the results obtained from the application of the interview and the focus groups.

The seven principles of dialogical learning are fulfilled. Thus, by applying the IGs, coexistence within and outside the institution was improved (transformation). The democratization and participation of all members of the educational community under equal conditions was promoted (egalitarian dialogue). The application of the IGs fostered respect for the diversity of ways of thinking, promoted interaction and enhanced skills (equality of differences). The different ways of thinking of the members of the group are recognized and new ideas are reached based on this (cultural intelligence).

In the students, awareness and self-analysis regarding personal contribution in collaborative work (creation of meaning) were awakened. Communication, interaction and participation of shy and introverted students and even students with SEN (instrumental dimension) were encouraged. The principle of solidarity stands out, since the feeling of mutual help, collaborative work and comradeship was promoted. Students with higher levels of knowledge and skills supported their peers with learning difficulties.

In addition to the principles of dialogical learning, leadership was also encouraged. The applied methodological strategy allowed new ones to emerge in the absence of identified student leaders. Also, the zone of close development (ZDP) was strengthened, which thanks to the interaction between peers was strengthened and reached higher levels of learning.

Although the achievements reached through the application of the GI exceed the difficulties encountered, some challenges were identified. Among the problems identified are the lack of empowerment of some students and low participation in collaborative work. Some students showed overconfidence in the work of group leaders and peers with greater development of skills and cognitive abilities. In this regard, Alvarez (2016) states that:

Solving exercises in a dialogical way is an especially costly aspect for students, who are used to not negotiating their answers, to giving reasons



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

that justify the choices made, etc. The challenge is to ensure that there is an equal dialogue between the people in the group (p. 133).

This may be the reason why some students do not actively participate. Hence the need to plan strategies that motivate them to intervene, to negotiate their responses, to justify their opinions. In itself, to stimulate the group to intervene all members. It is very important that the activities designed by the teacher tend to develop and enhance skills and abilities required. Flecha et al. (2003), in turn, reaffirms that "learning no longer depends so much on what happens in the classroom as on the interactions that are established in all the contexts in which people intervene: school, homes, neighborhood, sports club, media, etc.". (p. 2). Education must be the result of the student's interactions with all social actors and their context. The CoA project resignifies the traditional structure of the school, and it is inferred that the concept to be worked on urgently is the school culture. It is in this new learning niche, where the systematization of educational processes allows for the strengthening of social cohesion, through dialogical learning.

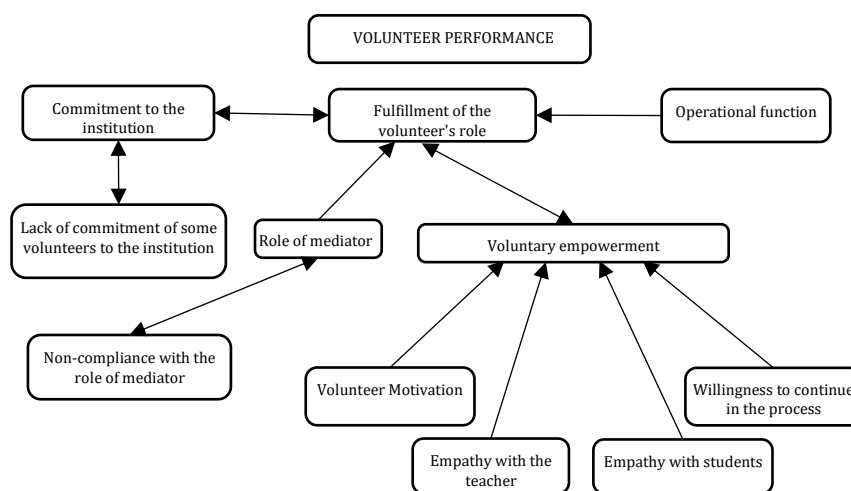


Figure 3. Performance of volunteers

Figure 3 related to volunteer performance indicates in general terms the fulfillment of the volunteer's role. This role is fulfilled both in the operational part and as a mediator. The codes of commitment to the institution, empowerment of the volunteer, and empathy with the teacher and student are added. However, there are aspects that contradict their functions such as non-compliance in their role as mediator and lack of commitment to the institution of some of them.

The creation of the codes expressed in figure 3 is based on the focus groups and interviews shown in table 1. The role of the mediator and his or her operational function is evidenced through active participation in the organization and collaboration of the activities proposed by the teachers. The volunteers stimulated the equitable work of all members and promoted the practice of values. They also became a support and guide for learning, by clarifying and directing the activities to be developed. Based on the positive experience of the volunteer in the IGs, the role of the teacher in the classroom was revalued and the predisposition to continue in the process was expressed.



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

In summary, the participation of the volunteer was significant; however, there were aspects that made the optimal development of the IG strategy difficult. For example, the lack of commitment was evidenced by the non-attendance and unpunctuality of some volunteers. Some mothers were involved in the resolution of the activities. This behavior, instead of being a support for the strategy, hindered it. Not only because it prevented the students from consolidating their learning on their own, but also because the teacher had to redirect their attention to them.

What was mentioned in the previous paragraphs highlights the positive contribution of volunteerism under the dynamics of the IGs. This fact agrees with the research related to the role of the volunteer developed by Vieira and Puigdellívol (2013), who highlight "from all the information gathered we can safely deduce that the different agents (students, teachers and volunteers, including families) clearly perceive the positive effect of volunteering on the academic progress of students" (page 47). Although it is not possible to demonstrate the specific weight that volunteering has on academic progress, we can affirm that its contribution is significant.

The experiences related to the intervention of volunteers in most cases are positive. Gómez et al. (2016), when working with university students as volunteers, point out that "the positive aspects far outweigh the negative aspects" (p. 278). It is reaffirmed that volunteers are a key element in facilitating the teaching-learning process. It is worth remembering that the success of the strategy lies in the committed participation of the volunteer, because without them the essence of the IGs is lost

7. Conclusions

The application of the IGs as part of the ESAs made it possible to identify several achievements expressed through the fulfillment of the seven principles of dialogical learning. The principles of egalitarian dialogue, transformation, and solidarity stand out. Egalitarian dialogue was evidenced by the democratization and participation of all members of the educational community on an equal footing. The principle of transformation was expressed through the empowerment of learning by improving interaction in the educational community. Solidarity was manifested in collaborative work where students with greater development of skills and abilities supported their peers. In addition to the dialogical principles, student leadership and the empowerment of the ZDP were highlighted as important achievements.

The positive results obtained in the present investigation lie fundamentally in the fulfillment of the roles of both the teacher and the volunteer. The teachers of the UEA reflected empowerment in the implementation of the methodological strategy. The cooperative and solidary attitude, commitment, leadership, predisposition and motivation, were aspects that characterized the empowerment. The volunteers fulfilled their functions both in the operational part and in their role as mediators. They promoted the equal participation of all students, strengthened the practice of values such as honesty. They became a support team for the teachers by clarifying and directing the proposed activities. Additionally, they revalued the work of teachers in the classroom.

The achievements reached in this first experience of the GI in the UEA were supported in great measure by the support team through training, implementation and follow-up processes constituted by external and internal agents, namely Grupo Faro, Subsecretaría de Educación del Distrito Metropolitano de Quito and Distrito Educativo 17D08, Los Chillos, authority and teachers of the institution. This aspect was detected as a difficulty in similar



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

studies. Hence the importance of having a continuous advisory system that allows to support and correct errors in the implementation of the strategy.

During the implementation of the strategy, some difficulties were identified at the level of teachers, students and volunteers. In the case of the students it was evident in some of them the lack of empowerment, little participation, contribution and collaborative work. The difficulties that some teachers showed were related to the planning of instrumental activities, management and application of the strategy and internalization of the methodological approach. Regarding the volunteers, there was no participation of the whole group.

The challenges generated by this first experience revolve around the consolidation of the strategy. The internalization of the IG approach is decisive for achieving the principles of dialogical learning and enhancing the development of skills and abilities. For this, it is necessary to propose collaborative activities that awaken creativity and are related to their environment. In addition, it is necessary to expand the educational community by integrating other social actors as volunteers, aspects that would strengthen social inclusion and cohesion.

The IGs, as an innovative teaching strategy, are a positive experience, despite the difficulties involved in their implementation. For this reason, it is necessary to carry out studies of a transversal and longitudinal nature at the institutional and national level that will allow for the promotion of the positive results obtained. In addition, projecting the principles of dialogical learning to other educational institutions in the country



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

Acknowledgements

Los autores dejamos constancia de gratitud y reconocimiento al invaluable aporte de la Unidad Educativa Antisana. Valoramos el aporte de docentes, estudiantes, madres, padres de familia y representantes legales, quienes a través de sus experiencias y criterios colaboraron en la consolidación del presente trabajo de investigación.

Bibliography

- Álvarez, C. (2017). Comunicación, entendimiento y aprendizaje en grupos interactivos. *Investigación en la Escuela*, 91, 90-105. DOI: <https://doi.org/10.12795/IE.2017.i91.06>
- Álvarez, C. (2016). Las dificultades para innovar en la escuela: el caso de los grupos interactivos. *Investigación en la Escuela*, (88), 127-138. <https://bit.ly/2Qmovlm>
- Andrés Reina, A.B. (2016). Grupos interactivos como práctica innovadora y facilitadora de la inclusión educativa. (Trabajo de fin de grado, Facultad de Ciencias de la Educación, Universidad de Sevilla, Andalucía). <https://bit.ly/2E4uQpv>
- Aubert, A., Flecha, A., García, C., Flecha, R., y Racionero, S. (2008). *Aprendizaje dialógico en la sociedad de la información*. Barcelona: Hipatia.
- Castro, M., Gómez, A. y Macazaga, A. (2014). Aprendizaje dialógico y grupos interactivos en educación física. Retos: nuevas tendencias en educación física, deporte y recreación, (25), 174-179. <https://dialnet.unirioja.es/servlet/articulo?codigo=4555265>
- Chocarro, E., y Mollà, S. (2017). Aportaciones de los grupos interactivos desde la perspectiva de estudiantes y voluntariado. *Innovación educativa*, (27), 61-73. DOI: <https://doi.org/10.15304/ie.27.4203>
- Community of Research on Excellence for All (2018a). Formación en comunidades de aprendizaje. Módulo 1. Introducción y bases científicas de las comunidades de aprendizaje. <file:///C:/Users/MAVE/Downloads/download.pdf>
- Community of Research on Excellence for All. (2018b). Formación en comunidades de aprendizaje. Módulo 6. Grupos Interactivos. Recuperado de <https://bit.ly/2K8p45v>
- Community of Research on Excellence for All (s.f.). Comunidades de aprendizaje. Aprendizaje dialógico. <https://bit.ly/32RNh9K>
- Creamer, M. (2019). El aprendizaje dialógico: Transformación de la escuela en el marco de la implementación de comunidades de aprendizaje en Ecuador (Tesis Doctoral, Universidad Autónoma de Madrid). <https://bit.ly/3aLZJL2>
- Flecha, R., Padrós, M., y Puigdelívol, I. (2003). Comunidades de Aprendizaje: transformar la organización escolar al servicio de la comunidad. *Organización y gestión educativa*, 5, 4-8. Recuperado de <https://bit.ly/3nyhUcd>
- García, R., Molina, S., Grande, L. y Buslón, N. (2016). Análisis de las interacciones entre alumnado y diversas personas adultas en actuaciones educativas de éxito: Hacia la inclusión de todos y todas. *Latinoamericana de Educación Inclusiva*, 10(1), 115-132. <https://bit.ly/2EkPdOL>



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

- Gómez, M., Aguilera, A. y Prados, M. (2016), El voluntariado de la Universidad de Sevilla en los grupos interactivos de las comunidades de aprendizaje. *Profesorado revista de currículum y formación del profesorado*, 20(2), 278-295. <https://bit.ly/379Lksp>
- Iglesias, B., de la Madrid, L., Ramos, A., Robles, C. y Serrano, A. (2013). Metodologías innovadoras e inclusivas en educación secundaria: los grupos interactivos y la asamblea de aula. *Tendencias pedagógicas*, (21), 63-78. <https://bit.ly/2Qo5JjH>
- Núñez, M., Espinoza, C., Acuña, C., Vargas, L. y Lagos, I. (2017). Grupos interactivos en aula y el incremento de los resultados de aprendizaje en lenguaje en un colegio vulnerable. *Scielo Educ. rev.* 33(e158882), 1-29. <https://bit.ly/31xMkTN>
- Oliver, E., y Gatt, S. (2010). De los actos comunicativos de poder a los actos comunicativos dialógicos en las aulas organizadas en grupos interactivos. *Revista signos*, 43(2), 279-294. <https://scielo.conicyt.cl/pdf/signos/v43s2/a02.pdf>
- Ordóñez, R., y Rodríguez, M. R. (2016). Los Grupos Interactivos como metodología didáctica en Educación Secundaria: Estudio de casos en un centro constituido en Comunidad de Aprendizaje. *Revista de Investigación en Educación*, 14(2), 141-155. <https://bit.ly/3aUMtE2>
- Ottone, E., y Hopenhayn, M. (2007). Desafíos educativos ante la sociedad del conocimiento. *Revista Pensamiento Educativo*, 40(1), 13-29. <https://bit.ly/31TsnXE>
- Picardo, O., Escobar, J. y Pacheco, R. (2005). *Diccionario Enciclopédico de Ciencias de la Educación* (1ra ed.). <https://bit.ly/34NEQOc>
- Rodríguez, J. (2012). Comunidades de aprendizaje y formación del profesorado. *Tendencias pedagógicas*, 19, 67-86. Recuperado de <https://bit.ly/2KoEuGh>
- Valls, R. & Kyriakides, L. (2013) The power of Interactive Groups: how diversity of adults volunteering in classroom groups can promote inclusion and success for children of vulnerable minority ethnic populations. *Cambridge Journal of Education*, 43(1), 17-33. DOI: <https://doi.org/10.1080/0305764X.2012.749213>
- Valls, R., Buslón, N., y López, I. (2016). Grupos interactivos: interacciones que aumentan el aprendizaje y la solidaridad. *Padres y Maestros/Journal of Parents and Teachers*, (367), 17-21. DOI: <https://doi.org/10.14422/pym.i367.y2016.003>
- Vieira, L. y Puigdemívol, I. (2013). ¿Voluntarios dentro del aula? el rol del voluntariado en "Comunidades de aprendizaje". *REXE. Revista de Estudios y Experiencias en Educación*, 12(24), 37-55. <https://www.redalyc.org/pdf/2431/243129663003.pdf>
- Zubiri, H., Vidu, A., Rios, O., & Morla, T. (2020). Inclusivity, participation and collaboration: Learning in interactive groups. *Educational Research*, 62 (2) 162-180. DOI: <https://doi.org/10.1080/00131881.2020.1755605>



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

Authors

BOLÍVAR VILLARREAL-YAZÁN obtained a Master's degree in Educational Management at the Universidad Andina Simón Bolívar (Ecuador) in 2014. The title of Superior Specialist in Educational Management in 2004 in the mentioned university. The title of Licentiate in Educational Sciences, Professor of Secondary Education in the Specialization of Literature and Spanish by the Faculty of Philosophy, Letters and Educational Sciences of the Central University of Ecuador in 1989.

He served as rector of the Antisana Educational Unit, Tolóntag community, parish of Píntag in the period 2016 to 2020. In October 2020 he became the rector of the Amable Arauz Educational Unit, an educational institution located in the parish of Conocoto, Educational District 17D08 "Los Chillos". He has participated in research projects as an external researcher, approved by the Research Department of the Central University of Ecuador. His main research topics are in the area of limnology and in the didactics of the Sciences. He is the author of essays registered at the Ecuadorian Institute of Intellectual Property and of articles published in Latindex magazines.

VERÓNICA MAILA-ÁLVAREZ obtained a Master's degree in University Teaching and Educational Administration at the Universidad Tecnológica Indoamérica (Ecuador) in 2011. He obtained the title of Specialist in Curriculum Design by Competencies in 2010 at the aforementioned university. D. in Biology from the Faculty of Philosophy, Letters and Education Sciences of the Central University of Ecuador in 2001. Degree of Bachelor in Education Sciences, High School Teacher in the Specialization of Chemistry and Biology by the Faculty of Philosophy, Letters and Education Sciences of the Central University of Ecuador in 1998.

At the moment she is a titular professor of the Pedagogy Career of Experimental Sciences, Chemistry and Biology of the Faculty of Philosophy, Letters and Sciences of the Education of the Central University of Ecuador. She has participated in research projects as director and assistant researcher, approved by the Research Direction of the Central University of Ecuador. Her main research topics are in the area of limnology and in the didactics of the sciences. She is the author of books and articles published in Latindex journals.

HELEN FIGUEROA-CEPEDA obtained a Master's degree in University Teaching and Educational Administration at the Universidad Tecnológica Indoamérica (Ecuador) in 2011. He obtained the title of Specialist in Curriculum Design by Competencies in 2010 at the aforementioned university. D. in Biology from the Faculty of Philosophy, Letters and Education Sciences of the Central University of Ecuador in 2005. Degree of Licentiate in Education Sciences, High School Teacher in the Specialization of Chemistry and Biology by the Faculty of Philosophy, Letters and Education Sciences of the Central University of Ecuador in 1997.

At the moment she is a titular professor of the Pedagogy Career of Experimental Sciences, Chemistry and Biology of the Faculty of Philosophy, Letters and Sciences of the Education of the Central University of Ecuador. She has participated in research projects as an assistant researcher, approved by the Direction of Research of the Central University of Ecuador. Her main research topics are in the area of science education. She is the author of books and articles published in Latindex and Open Academic Journal Index journals.

ELIZABETH PÉREZ-ALARCÓN obtained a Master's degree in University Teaching and Educational Administration at the Universidad Tecnológica Indoamérica (Ecuador) in 2011. He obtained the title of Specialist in Curriculum Design by Competencies in 2010 at the



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

aforementioned university. D. in Biology from the Faculty of Philosophy, Letters and Education Sciences of the Central University of Ecuador in 2001. Degree of Bachelor in Education Sciences, High School Teacher in the Specialization of Chemistry and Biology by the Faculty of Philosophy, Letters and Education Sciences of the Central University of Ecuador in 1998.

At the moment she is a titular professor of the Pedagogy Career of Experimental Sciences, Chemistry and Biology of the Faculty of Philosophy, Letters and Sciences of the Education of the Central University of Ecuador. She has participated in research projects as director and assistant researcher, approved by the Research Direction of the Central University of Ecuador. Her main research topics are in the area of limnology and in the didactics of the sciences. She is the author of books and articles published in Latindex journals.



[Licencia Creative Commons Atribución 4.0 Internacional \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)