The International Baccalaureate Diploma: Assessment and Perception of Ecuadorian Teachers in the Framework of Student Training

Carmen Siavil Varguillas-Carmona1, Magda Francisca Cejas Martínez2, Mercedes Carolina Navarro Cejas3, Mendoza Velazco Derling Jose4

1Universidad Nacional de Chimborazo UNACH- Facultad de Ciencias de la Educación, Humanas y Tecnologías, Ecuador.
2Universidad Nacional de Chimborazo UNACH- Researcher Administration career. and Universidad de las Fuerzas Armadas ESPE, Ecuador.
3Universidad Regional Autónoma de los Andes UNIANDES
4Faculty of Experimental Sciences, Universidad Nacional de Educación, Chuquipata, Ecuador UNAE

ABSTRACT. This article presents the results of an investigation directed to analyze the teachers' perception about the implementation of the curricular design of the International Baccalaureate Diploma Program in the province of Chimborazo, Riobamba - Ecuador. The design that was selected was qualitative, developing the interpretive paradigm. As a sample, a total of 18 teachers were considered who during the 2018-2019 school year administered the subjects and core components of the International Baccalaureate. A mixed questionnaire was applied, the data was organized in matrices and content analysis was applied for its interpretation. As negative aspects, they reveal that their experience has been marked by insufficient training that is evident in professional training for the development of pedagogical activity, in attention to the international parameters assumed by the Ministry of Education when implementing this modality of baccalaureate. There is, as well, evidence of a lack of material resources (laboratories, internet access, specialized bibliography). As favorable aspects, there was found teamwork to achieve the objectives and the willingness of teachers to continue the program.

KEYWORDS: International baccalaureate, Teacher training, Curriculum, Ecuador

1. Introduction

Thus, it should be noted that IB is currently taught in 199 public schools and 67 private institutions. In the case of the former, 5 million dollars are allocated annually to cover the attention of students and teachers [1]. The operation of this program includes 2,189 professionals with managerial and administrative functions, as well as teachers of IB subjects and components with training in international workshops [2].

The IB (International Baccalaureate, also known as IB), in its educational philosophy reflects the “holistic nature of education” and is presented as a way for excellence that seems to have no comparison with any other educational system, given the innumerable benefits that it offers to all the students of the schools of the world where it is applied. Currently there are 5,139 institutions located in 156 countries. Students can study the Diploma Program in their mother tongue or in the bilingual modality.

Within the academic community, various studies have been carried out on the programs offered by the organization of the IB, in which their favorable and unfavorable aspects are weighted. [3] analyzed empirical work on the impact of the IB on teaching and learning that IB programs and concluded that, to a large extent, they have a broad positive assessment, evidenced in the experience of those who have been involved in its execution. However, they refer that it is pertinent to carry out other longitudinal investigations with inferential techniques and adequate controls to deepen aspects such as the abilities acquired by students, learning processes, values; among others, to have a better vision of its true impact.
For their part, [4] state that IB favors the development of academic honesty from initial education stages to high school, specifically in students of the last level, who have as a requirement to build their learning, demonstrating academic probity for how much they possess investigative competencies and study habits required to process the different sources of information.

Some of the criticisms of IB focus on the fact that it is a foreign curriculum transplanted to countries with dissimilar cultural realities that does not arise from the needs of the educational context where it is applied and reproduces models that act as mechanisms of exclusion. This opens a gap between students with greater access to economic resources: upper class and those who do not have it: lower class. Likewise, it would train students for an elite with resources to defray the expenses derived from the use of it, in addition to having an educational orientation aimed at creating a uniform mindset, it uses standardized evaluation parameters, dictated by the International Baccalaurate Organization.

The teacher becomes a technical operator of the content and programs previously designed and evaluated by instances external to the school. In this sense, it is worth noting what was proposed by [9] when it mentions the efforts made after a curricular design process to convert the outlined ideas into a set of teaching practices. Therefore, it covers the training that the competent authorities offer to the teacher to manage, in an ideal way, the academic and administrative requirements for the implementation of the curricular design. This requires in-service teacher training, provision of instructional resources for teachers and students, among other requirements.

For the purpose of this study, it is interesting to raise the experience of teachers because they are a strategic factor in the success of the curricular administration processes. In agreement, [10] maintains that the functions of the curriculum can be aligned in two directions (a) inform teachers about the objectives to be achieved and the methodological orientation essential for this purpose and (b) be a benchmark for surrender of accounts of the way in which the educational system has effectively fulfilled its objectives.

In this sense, the formulation of the curricular design highlights the responsibility of government entities in the educational sector to inform teachers of educational intentions, as well as guidelines and guidelines on how they should be implemented in everyday practice. The results will be an indicator of the academic levels reached by the students.

Consequently, the proper implementation of IB, or any other curricular design, involves the active and committed participation of educators, who, among other qualities, must have mental flexibility to adapt to changes and thus appropriate pedagogical models, even more so when it comes to an exogenous curricular proposal that varies, substantially, from the other modalities of Baccalaurate that are taught in the country.

However, in the field of research on the application of IB in different countries, it was observed that, for the most part, they are aimed at students or at applicable strategies or methodologies to optimize said program at its different levels, considering to a lesser extent the teacher. Likewise, the reality of the private schools where IB was originally developed differs from the socio-educational contexts of public education. In view of the importance acquired by IB in Ecuadorian education, being the second country in Latin America with the largest number of affiliated institutions called the World Schools, this work focuses on the perception that teachers have about it, highlighting its weaknesses and strengths.

1.1 Context of Study: Actors of the Bi Program

The International Baccalaureate Program is an educational offer initially open to all students between the ages of 16 and 19 with a duration of two years. However, it is required as entry requirements “to possess an innovative attitude, commitment and perseverance, leadership, teamwork spirit, solidarity attitude, awareness of the needs of the country, the region and its environment, which show an entrepreneurial attitude and international vision.”

In addition, the Ministry indicates that the interested party must have participated in the socialization of the proposal in an authorized institution, state in writing their interest in pursuing and completing their studies under this modality, and possess a full disciplinary record. At the end of the training process, and after an external evaluation, it is ruled whether the requirements to obtain the Diploma have been fulfilled since, if the external evaluation is failed, they only obtain a certificate as participants.

The selection process assigns the students and from there they must adapt to the characteristics of the program. The fulfillment of the initial requirements is the beginning of the trajectory. As for teachers, IB requires time spent inside and outside the institution that can lead to increased levels of stress in young people.

Based on the above, performance is also affected by the socioeconomic conditions of the students, who often come from low-income families who do not have the necessary income to buy the required study materials, internet access in their homes. Thus, they cannot dedicate themselves exclusively to the tasks of this demanding program, since they must help their parents with the maintenance of the family group. As [12] indicates, research from the last fifty years has shown that socioeconomic status is one of the best predictors of educational performance. This situation of economic vulnerability generates desertion among the participants of the diploma program who choose to graduate through the
conventional system of the BGU. In a study carried out in the province of Tumbaco, \cite{13} found that the reasons why students drop out are due to high demands of the program, financial, stress and little time to share with friends from outside the IB world.

On the other hand, the teachers indicated as a weakness the fact that the students who achieve the goal of obtaining the international certification are not subject to follow-up to determine if there is continuity in their professional trajectory, after leaving the program.

1.2 Extrinsic Motivation

The teachers consulted argue that, despite the professional and personal demand that the International Baccalaureate students demand and fulfill their other institutional responsibilities, there are no recognitions such as, for example, distinctions for performance, economic incentives, credentials for promotion in the teaching ranking, among others.

They point out that, in the case of students, the awards would be given for direct access to universities, the possibility of enjoying agreements with national and international organizations, scholarships, especially for those who are forced to leave the program due to the socioeconomic condition of the parents.

It is appropriate to note that in Ecuador all applicants to enter a public institution of higher education must take the Ser Bachiller test, performed annually, the results of which determine the allocation of places to study different specialties in institutions distributed throughout the national territory. Regarding the IB diploma, \cite{7} affirm that among high-income sectors it has “a certain symbolic value” since, by itself, it is not a certain guarantee that students can enter the University.

Article 15 of the \cite{14} establishes that: “it does not guarantee the recognition of IB diplomas or the results of IB courses and declines all responsibility for the consequences that may arise from changes in the regulations of recognition of any university or institution, or of the competent authorities of any country”. All admission process is the responsibility of its applicants who must comply with the regulations in this regard.

The experience of the teachers reveals that the intrinsic motivation must be reinforced by means of the extrinsic in order to work towards fulfilling the IB’s aspirations, in a complex labor context where the material conditions of the educational spaces are not ideal, thus Nor is that of students and teachers.

1.3 Assessment of the International Program.

Regarding the assessment of strengths (positive aspects of the program) it is worth noting the teamwork (Inf.3 Inf.5 Inf.6, Inf.9) which is presented as the greatest strength of the application of IB, followed by the suitable formation of the students because they prepare for the University, they acquire the profile that the PD offers in addition to becoming competent students with good habits (Inf.4); whose reward is to obtain the diploma for their performance. As indicated above, studying under this modality is a personal choice. This highlights the motivation of the students to overcome adversity and complete their studies under this form of high school, even when the levels of demand are higher than the BGU.

The academic preparation of the teacher, evidenced in fourth level studies (Master's) is seen as a favorable aspect to comply with the IB curricular guidelines. Another positive element is the willingness of the teacher to face with a positive attitude the fulfillment of their teaching tasks inside and outside the institution: Teacher predisposition to do their best, working until after hours to achieve the good results expected (Inf. two).

Likewise, they develop the investigative skills necessary to achieve the profile of the BI student where being probing is part of the process of autonomous learning. There is, therefore, a need for teacher updating and self-preparation (Inf. 18).

Regarding administration, the support of the IB Institutional Coordination is considered a strength, as is the acceptance that the program has among the members of the students' family group. In a smaller proportion, the support of the BI organization is indicated.

In attention to the dimensions involved in pedagogical work and, with special emphasis on the implementation of IB, teachers in their entirety recognize that it requires a professional update that tends to increase the acquisition of skills that help them improve their daily practice in the classrooms.

2. Method and Discussion
The purpose of the study was to analyze the perception of the teachers of a public fiscomisional school of the Riobamba canton, Chimborazo province, about the implementation of the IB.

Eighteen teachers who worked in the public fiscomisional school of the Riobamba canton participated in the study, in this sense the inclusion of voluntary decision-making to be part of the research and to have administered the subjects and core components of BI (Business Management) are considered as inclusion criteria, Theory of Knowledge, Spanish A, Mathematical Studies, History, English Ab. Initio, Biology) during the 2018-2019 school year. 55% of teachers are women and 44.44% are men. The average years of service in education is 15.33. The lowest experience range is 6 years and the highest 29 years. Regarding working time in the BI modality, 83.3% are between 1 and 5 years old and 16.6% are between 6 and 10 years old. 44% have 4th level academic training (Master's). The remaining 56% indicated that they have not yet completed postgraduate studies.

The instrument was a mixed questionnaire made up of 17 questions sent using the electronic means to teachers, to inquire about their experience in implementing IB in the institution. The questionnaire was subjected to an expert judgment validation to determine its validity based on the wording of the questions, relevance of the questions and correspondence with the level of the respondents.

It should be noted that the respondents had one month to respond and send the results with the answers obtained from the questionnaire. The results were emplotted into a matrix designed in the Microsoft Word program and each teacher was assigned a code (Inf.) Correlative from 1 to 18. In this matrix, the following were considered: (a) textual response of the teacher, (b) identification of keywords (c) emerging categories. These categories were defined conceptually and their indicators were specified (see Table 1.). To guarantee the validity and credibility of qualitative research, the triangulation technique was used because it allows establishing intersections or coincidences, from different points of view about the same phenomenon, as well as offering a broad understanding of what was studied [15 and 16]. Therefore, the findings were contrasted with theoretical studies on the subject, legal documents, and similar empirical research carried out in Ecuador and in other geographical areas, in order to have a broader vision of the development of IB. Additionally, in the presentation of the results some textual responses of the teachers are presented in italics and identified with the code of each teacher (Inf).

3. Results

This section presents the most relevant findings of the study. For didactic purposes, the weaknesses are developed in three phases in the implementation of the BI (Awareness and Diagnosis, Training / Accompaniment and Execution). Finally, the strengths that, according to informants, the Diploma Program has had in their institution are presented.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Definition</th>
<th>Indicators</th>
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<tbody>
<tr>
<td>Curricular Consultation</td>
<td>Process promoted by the governmental educational instances in order to know the opinions and perceptions of those who are going to be affected by the curricular modifications.</td>
<td>-Knowledge about the implementation of the program.</td>
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<td></td>
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<td>-Inadequate induction processes</td>
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<td>-Application of diagnostics</td>
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<tr>
<td>Teacher training</td>
<td>Teacher training and updating process, through courses, workshops, conferences, consultancies in order to appropriate all the legal, didactic and methodological aspects necessary for the implementation of a new curriculum design.</td>
<td>-Training courses for the development of BI.</td>
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<td></td>
<td></td>
<td>-Absence of accompaniment</td>
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<td>Curricular integration</td>
<td>Didactic-methodological processes established in planning and evaluated in practice in order to link the disciplines that make up the IB curriculum design through different learning strategies.</td>
<td>-Articulation of subjects and core axes</td>
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<td>-Coordination of teamwork</td>
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<td></td>
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<td>-Work meetings</td>
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<tr>
<td>Duality of resumes</td>
<td>It is the implementation, simultaneously, of two curricular designs in the same educational context.</td>
<td>-Different curricular meshes</td>
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<td></td>
<td></td>
<td>-Forms of planning and evaluation.</td>
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<td>Didactic resources</td>
<td>They are all the support materials that complement the work of the teacher and contribute to the effective development of the teaching and learning process.</td>
<td>-Library provision</td>
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<td>-Lack of laboratories</td>
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<td>-Internet connection</td>
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<td>-Few books in the library</td>
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<tr>
<td>Time Demand</td>
<td>It is the period necessary for the development of the different</td>
<td>-Work overload</td>
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Table 1 Description of The Weaknesses Perceived by the Teachers in the Implementation of the Ib
3.1 I Awareness and Diagnosis Phase

This phase refers to the previous process carried out by the corresponding bodies in the field of education to present the IB program at the institution and to know what strengths and weaknesses in human and material resources they have to face this responsibility.

Most of the teachers indicated that when the decision was made to include the institution in the International Baccalaureate Diploma Program, they were not consulted. There was a lack of induction programs, prior to being part of the program (Inf. 18). Consequently, they were also not participants in curricular induction activities, aimed at knowing the objectives and goals that, in a global way, they hoped to achieve with the incorporation of an international curricular design that integrated the institution into the so-called World Schools. The establishes that when an institution is authorized to teach the program, it assumes all legal and administrative responsibility for its fulfillment, as well as its values and declaration of principles. Thus it follows that the responsibility for ensuring the success of the BI belongs to who subscribes to this organization.

Awareness-raising activities around the application of new curricular designs favor the participation and commitment of the teacher during its implementation. When this process is applied in a directive way, from superior management instances, feelings of rejection can be generated around what is perceived as an imposition.

3.2 II Training and Accompaniment Phase

This phase is defined as all the preparation that the teacher must receive before the start of the implementation of a curricular design, as well as the follow-up process carried out during its execution. The organization of the highlights as a key factor in the success of its educational proposal, the teacher's mastery of the relevant pedagogical approaches with the execution of the programs, hence its policy is to carry out an evaluation of the degree of preparation of the institution before issuing the authorization.

Likewise, there must be continuity in subsequent professional development, guaranteed by a request from the institution for teachers to receive training workshops by the people the organization designates. These workshops are classified into three categories, the first is aimed at learning about the philosophy and implementation of IB programs; number two deals with the teaching of the 4 programs that make up its educational offer and category three deals with deepening and perfecting the professional training of teachers, in accordance with their area of performance.

However, training for the administration of IB courses and core components was revealed as one of the main weaknesses, as evidenced in the responses: Inf.2: Insufficient pedagogical advice to teaching staff, Inf.7: Never have received some training, just emails as a guide. Inf.8: Need for training of BI teachers by the OBI. Inf.7: There has been no training and it is left to the teacher's interpretation.

It should be noted that the training received must go in two dimensions, the first towards training in didactic models, forms of planning and evaluation. The second, in compliance with the guidelines established by the IB organization through the, which includes the forms of entry, permanence, evaluation system and accreditation of students who are enrolled in the Schools del Mundo, with special emphasis on the responsibility of the authorized institution and the legal guardians of the students. In addition to this legal instrument, there are a whole series of documents on specific aspects of
the program, such as requirements to request professional performance courses, evaluations manuals, among others, which must be taken into account by those who are involved in its application.

For its part, the pedagogical support of the Management staff and Members of the BI Organization during the implementation of the Diploma Program was perceived as a weakness among the respondents, one of the reasons given was the permanent change of educational authorities (Inf.8) , which prevents the work done from being tracked. Therefore, the responsibility of educational managers is to supervise and maintain a proactive attitude to achieve the competencies that the curriculum design contemplates. In this case, the external evaluation carried out by the International Baccalaureate Organization is an indicator of the way in which the program is being carried out in the institution and, in turn, is an indirect evaluation of national educational policies. The reality found in the institution under study contradicts the IB guidelines when it establishes as a requirement the certification of the teachers who administer the courses and core components.

3.3 Iii Execution Phase

The limitations encountered by teachers during the application of the program in the institution are described.

3.4 Curricular Duality

The most significant changes in Ecuadorian educational policies occurred with the incorporation of the Unified General Baccalaureate that began to be implemented in 2011. For its part, the International Baccalaureate modality began to be applied a year later in Ecuadorian public schools.

Now, the IB curricular grid is represented in the form of a hexagon divided into six academic areas (Language and Literature Studies, Language Acquisition, Individuals and Societies, Experimental Sciences and Arts) grouped around a nucleus in which articulate the core components (Theory of Knowledge, Creativity, Action and Service and Monograph). Unlike the BGU, where the study plan is structured by courses corresponding to a specific area of knowledge, the complexity of which, as respondents recognize, is not the same:

Inf.2: The methodology and the commitment that the teacher has with the students in a certain way is the hardest part, in addition the contents of the subjects are much more extensive than the unified baccalaureate and finally this program is based on the student being the center and It is certainly a demanding pre-university course.

Inf.9 The common core established for the IB program requires a special treatment of teachers and students that entails a lot of responsibility.

Inf.16: The Diploma Program works with skills and curricula different from those of the BGU. The study programs are directed by the OBI (International Baccalaureate Organization) through study guides for each subject, both at the Higher and Middle Level and the Core components.

Participants consider IB as a curricular design that requires rigorous academic preparation, as well as dedicating time to educational planning to achieve the expected standards of excellence for graduates. At the same time, they must serve regular groups of students who are not subject to this system.

3.5 Curricular Integration

The interdisciplinary vision is part of the IB study plan, however, its concretion, through the articulation between the Components and Trunk Axes, has not been effectively consolidated, although they recognize that the planning and evaluation strategies allow to mesh the Content through the development of Creativity, Learning and Service projects, writing essays in Spanish and English, preparing rubrics to assess the work, forming habits, among others, the daily practice of teachers may be different from what is planned. Among the factors that contribute to the fact that the articulation has not been the ideal are informality in the meeting process motivated by the absence of calls, availability of time and work agreements established in other school years, as well as the availability of resources.

Inf.16 indicates that: Dialogues have taken place, yes, but not with the formality of meetings. This approach is necessary to be able to link the core components that is still a weakness in PD in school.

[9] recognizes the discrepancy that may exist between the planned and the implemented curriculum, evidencing, many times, insurmountable differences between one and the other, which constitutes a reason of interest for the curricular evaluation of school management as this It will yield the necessary information to account for the strengths that must be exploited and the weaknesses that need to be remedied.
3.6 Time Demand

The scope of the interdisciplinary vision, embodied in the IB curriculum is constrained by the lack of time to develop the proposed topics:

Inf.4: The time is not enough to review the contents of the national curriculum, as it is in History; as well as to plan and prepare evaluation instruments (rubrics). Likewise, extra time should be allocated on weekends to attend activities of the Creativity, Action and Service Component aimed at developing links with the communities in the area of influence of the institution. The demand for time is an important weakness to meet the demands of this program since, as they revealed, they have other institutional responsibilities, which impede their full dedication to BI. The working day for IB teachers is 30 hours per week, 10 are for student care and the rest are for planning and other academic-administrative functions. In addition, family commitments are affected when they have an hourly load outside of school days (Inf.13).

3.7 Material Resources and Infrastructure

Complying with BI standards makes it mandatory for the institution to have the necessary resources for its correct implementation. According to the official website of [2], to carry out the execution of this program, the institutions would have specialized bibliographic material, as well as graphic calculators for students and teachers, provision of supplies for experimental science laboratories, for students and teachers. In addition to having technological platforms of academic honesty.

The teachers' responses contradict the above because the institution presents as problems: Inf.1 Lack of infrastructure and resources that allow better results, Inf.18 Limited bibliography in the institution's library Inf.5 Adaptation and equipment of facilities for the IB such as laboratories. Inf.6 Lack of a computer lab and internet for research.

The availability of resources is perceived as one of the main limitations, even more so when the accreditation of the students is done through external evaluators to the school, which requires having internet access with ample browsing capacity. Likewise, the different information required by teachers and the Program Coordination are obtained in digital format.

4. Discussion and Conclusions

The results obtained in the province of Riobamba coincide, with the findings of [13] in an institution located in Tumbaco when he establishes that it is necessary to carry out a rigorous teacher selection process, provide continuous training, motivational activities to avoid the desertion of students, incentives to teachers and endowment of resources for the institution, among others.

These results are in the same order proposed by [19] who, at the request of the IB organization, coordinated a project aimed at “examining the implementation and impact of the IB Diploma Program in Ecuador, with an emphasis on the culture of school, teaching practices, and the academic and non-academic results of the students” [p. 4]. Together with a group of collaborators, he made a global assessment of those obtained in the implementation of the program in the 17 public schools in Ecuador that administered the IB.

The research findings allow us to conclude that the 18 teachers surveyed consider that the implementation of IB is favorable for their own training and that of the students. However, they highlight the aspects that must be improved because they limit the effectiveness of the program.

Undoubtedly, the curriculum constitutes a filter from which the world is perceived and ideological, cultural and political reasons come into play in its conformation [20], hence the application of new curricular designs deserves to consider all the elements involved in this process, especially teachers as key actors in its implementation. Although the BI Diploma Program does not follow the stages proposed in a conventional curricular design because, this is already predetermined by an external body, when it is assumed as public policy, its concretion must be guaranteed by adequate supervision at the micro-curricular level. Therefore, pedagogical accompaniment to the teacher is imperative to enhance the academic quality of IB students because the Ecuadorian State makes an additional investment in their training and the results obtained are expected to be satisfactory.

As a public policy, differences are observed between what is officially announced and the reality of the institution studied. Even though teachers highlight intrinsic motivation and commitment to continue with the program as strengths, in the absence of proper training, the risk of acting by “trial and error” is latent. Likewise, the insufficiency of material resources (equipped laboratories, access to technology, bibliographic material) is an obstacle that shows that the IB curricular concretion has not been fulfilled in the foreseen terms.
Finally, given the importance of the formation of students under the guidelines of an international education in the development of the educational policies of the State, future studies make it necessary to consider the evaluation of the process in the curricular implementation of IB from political criteria, educational, cultural, technical and economic impact, in order to obtain qualitative and quantitative evidence that validates the relevance or not of its application in the public contexts of Ecuadorian schools.

References


About authors

Carmen Siavil Varguillas-Carmona
PhD. Professor and Research of Universidad Nacional de Chimborazo UNACH- Facultad de Ciencias de la Educación, Humanas y Tecnologías. Ecuador. ORCID: https://orcid.org/0000-0002-3834-2474. Email: cvarguilas@unach.edu.ec

Magda Francisca Cejas Martínez
PhD. Professor and Research of Universidad Nacional de Chimborazo UNACH- Researcher Administration career. and Universidad de las Fuerzas Armadas ESPE, Ecuador. ORCID: https://orcid.org/0000-0002-0618-3608. Researcher ID: G-8211-2019, Scopus Author ID: 57190670617. magda.cejas@unach.edu.ec

Mercedes Carolina Navarro Cejas
PhD. Professor and Research of Universidad Regional Autónoma de los Andes UNIANDES. ORCID: https://orcid.org/0000-0003-4377. Research ID G-8196-2019. Email: ur.mercedesnavarro@uniandes.edu.ec

Mendoza Velazco Derling Jose
Faculty of Experimental Sciences, Universidad Nacional de Educacion, Chuquipata, Ecuador UNAE. ORCID: http://orcid.org/0000-0001-8275-3687. Research ID N-1162-2018. derling969@gmail.com