Study on educational competencies at the National University of Equatorial Guinea (Bata): a challenge for the future

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Abstract

This research aims to analyze the perception of teachers and students on educational competencies at the National University of Equatorial Guinea (Bata). This study was based on a quantitative methodology with an interpretative paradigm, through a non-experimental, cross-sectional, explanatory, descriptive and correlational research design. For data collection, a Likert scale (validated in content and construct) was developed for 160 students and teachers at the Bata campus. The analysis was carried out through a Pearson's P correlation, a descriptive analysis and a one-factor ANOVA, both to see the differences between teachers and students, as well as the influence of belonging to one or the other ethnicity. The main conclusions allow us to affirm that there is a higher valuation of technological competences in relation to personal and social competences, that teachers perceive with greater importance competences such as mathematics and science in relation to students, and that ethnicity determines, in the same way, this perception, showing significant differences in relation to social competences.

__Keywords:__ Competencies, teachers, students, university, perception

1. Introduction.

The purpose of this research is to analyze the perception that teachers and students have of educational competencies at the National University of Equatorial Guinea (Bata). The National University of Equatorial Guinea (UNGE), a public institution of higher education, is the main university of the Republic of Equatorial Guinea in Central Africa, with a main campus in Malabo, as well as a unit in Bata, the latter being the one used for data extraction. Bata is the most populous city in Equatorial Guinea, surpassing the capital itself, and home to the UNGE, with faculties of humanities and religious sciences, educational sciences and medicine. The insertion of educational competencies in this context is an issue to be investigated and discussed, and is still at the project stage. The research proposal presented here arises from two complementary ideas which are, on the one hand, the result of a constant concern for having a competitive higher education system with international quality indicators, where competencies play a very important role, and, on the other hand, to initiate the necessary studies for the implementation of competencies in the UNGE to be a contextualized and scientifically based process.

The basis of this research is formed by the contributions of the project "Definition and selection of competencies 1996-2006" (DeSeCo, 2005); the Tuning project (2003) and the Eurydice study (2002). Based on Delors' (1996) approaches, UNESCO (2019), presented a new document with the initiative of the future of education, and with the aim of reinventing the way in which knowledge and learning can shape the future of humanity in a context of increasing complexity, uncertainty and precariousness. In this way, UNESCO, through a project, seeks to respond to current challenges and opportunities that can have an impact on education and on generations for quality education in the future. This document presents a look at 2050 and beyond, a ferment of global debate on how to re-examine knowledge, education and learning to meet the challenges of today and the future. It will also feature the voices of the world and will be supported by a broad and open consultation process involving youth, teachers, civil society, governments, businesses and other stakeholders (UNESCO, 2019).

From the pedagogical approach and according to the proposal of the Commission of the European Community (2006), the pedagogical concepts are interpreted with their own nuances as: basic, key, essential competences; general, generic, generative competences; specific competences. Thus, competences are those that all people need for their personal realization and development, as well as for active citizenship, social inclusion and employment. The university, with all this, has as its mission to place the student under the intellectual tutelage of the research professor, in an environment of teaching, learning and research, which are important points in the face of the challenge of strengthening culture in a globalized way, mainly in the aspect of professional training. "The mission of education is to enable everyone, without exception, to bring to fruition all their talents and all their creative capacities, which implies that everyone can take responsibility for themselves and realize their personal project" (Delors, 1996, p. 13).

In higher education we can consider the double activity: teaching and research, as important aspects for teaching, based on the interest in theoretical development and the practical utility of knowledge. In addition, they have the mission of training competent professionals, taking into account the imagination of the student, together with the maturity and experience of the researcher-teacher. Thus, teacher training programs focus on student performance and on the link between student learning and teacher competence. All this has implied a challenge to professional training, where education appears closely linked to the globalized labor market. This has given rise to a series of implications in the social, economic and educational spheres, mainly in the need to incorporate new teaching methods, seeking to strengthen the teacher's role as a mediator in the learning process, as well as in the insertion of competencies in education. Seeking an integral formation with a humanistic aspect and scientific quality (Castells, cited in Bruner, 2001, p. 15).

In relation to the competencies that a teacher in higher education should have, we highlight the articulation between theory and practice, which should be directed to the critical reflection of the educational act, allowing the development of an exercise that considers the human, social, political, economic and cultural sphere of the actors in the process, with an ideal of an investigative teacher. Therefore, good teachers are human, friendly and understanding; they know how to build a pleasant and stimulating environment in the classroom and in the school; they have confidence in the ability of all their students and make them all succeed (Agudelo, 2014). In this way, we understand that a teacher in higher education who works with competencies must be stimulating and critical, seen that these are essential requirements for a change in the educational paradigm. And reaffirming that, Gimeno (2011), asserts that these teaching practices have various characteristics, attitudes, and skills with which it is intended to illustrate the attributes that a "good teacher" university meets or should meet. Competence in this university environment assumes a function that enables teachers to act in an investigative manner in their professional practice, and thus to be in permanent creation, building and reconstructing knowledge in the development of academic activity in the classroom, in research practices and community outreach.

According to Escámez (2013), teaching competence in university education is not limited to specific rules or practices, but has more to do with their attitudes, with the trust they place in young people and how they make them feel in achieving their goals. This is the most important aspect, that is, that they manage to transmit the necessary freedom for them to make their own decisions. In addition, teachers must work as a team and constantly improve themselves, because life changes much faster than classrooms change. This implies the development of different dimensions of the person who faces the challenge of teaching, which obviously involves not only the efficient transmission of scientific knowledge, but also the mastery of a series of knowledge and the development of skills, abilities, attitudes and competencies inherent to the teaching task.

Gutiérrez (2008) states that "the teaching task is promoting and strengthening the physical, intellectual, affective, social and moral development of their students. The author

affirms that it is a fundamental factor in the consolidation and improvement of their knowledge to develop a human formation. In view of the fact that a true teacher considers himself as a true education professional, and therefore always conducts himself professionally" (Gutiérrez, 2008, p. 1299). In this sense, teachers must be innovative and capable of transforming their own training process into a space for inquiry, using appropriate strategies and resources to promote meaningful learning in their students (Moreno, 2015).

Importantly, in November 2019, the Global Convention on the Recognition of Qualifications concerning Higher Education was adopted at the 40th session of the UNESCO General Conference, which becomes the first United Nations treaty on higher education with an international scope. The main objective of this convention is to widen access to higher education worldwide by facilitating the international exchange of students, teachers, researchers and job seekers. Therefore, this Global Convention will provide in the field of education greater cooperation at the international level and thus, contribute to improving its educational quality worldwide (UNESCO, 2019).

The University, through its members, is a legitimizing or delegitimizing force of the social, cultural, political and economic options generated in society. It is not only because of its great social or humanistic discoveries, but also because it exercises this responsibility in daily practice. The university student is not an outsider, but on the contrary, he is especially committed, he must be formed politically, given that political action on the part of the university students allows the encounter of different positions that are deepened thanks to consultation or teamwork. Their participation within the plurality of thought is a moral obligation because it corresponds to their being university students (Fernández González, 2016).

Higher education is the opening for the teacher to develop competencies, aiming at a training with an integrating and ethical approach. Since, in relation to teaching competencies we can affirm that it is something necessary and essential to have a quality education. Education is, unquestionably, the most effective way to shape values, attitudes, behaviors and skills that will equip the peoples of the world in accordance with the long-term interests of the planet and humanity. Therefore, in this sense, the University is an institution that generates socio-cultural realities and its own thinking, transforming and with projection towards social life (Unesco, 2019). The university, as a trainer of teaching competencies, must be aware of its historical mission and must assume a leading role in the development of competencies that generate transformational leadership, for which it is necessary to define a new horizon of thought and action, to specify an educational model, in accordance with the demands of the educational present and with projection to the future. Galbán & Ortega (2021) refer to the importance of planning, didactic contextualization, content management, the variety of didactic means and evaluation. In line with Zabalza (2007), who speaks of the competence of reflecting and researching on teaching, and also with Mas (2012), who considers actively contributing to teaching.

Galbán & Ortega (2021) propose the field of active teaching strategies as future lines of research.

With all of the above, this research is justified, since in the African context in which this work is situated, there is no research or references on competencies in higher education.

2. Methodology.

This research is based on the general objective of analyzing the perception that teachers and students have of educational competencies at the National University of Equatorial Guinea (Bata). It is based on a non-experimental, descriptive, explanatory and correlational design, quantitative methodology and an interpretative paradigm. A Likert scale was chosen as the research instrument to carry out the research.

Participants.

The research context is centered on the Bata campus, belonging to the National University of Equatorial Guinea. The sample was a convenience sample with a total of 160 participants (81 teachers and 79 students).

Variables and hypotheses.

The dependent variable is the perception of teachers and students, and the dependent variable is educational competencies. The hypotheses established are: H0- Teachers and students do not give importance to educational competencies. H1- Teachers and students give importance to educational competencies.

Instrument.

The Likert scale was designed with a table of operationalization, taking into account the research objective and the study variables, with response options from 1 (lowest value) to 10 (highest value). Moreover, validation was carried out, first of all, with an expert judgment and pilot test, and secondly, a factor analysis was performed to validate the scale in its construct using SPSS v25 software. The reliability analysis was calculated with Cronbach's alpha, giving a score of .843 for the 11 items that make up the scale, which is considered good (George & Mallery, 2003).

Data analysis.

Content validity.

Regarding validity, firstly, we proceeded to a content validity performed by specialists authorized to perform this evaluation and belonging to different

universities, for the specialists we calculated the Knowledge or Information Coefficient (Kc) and the Argumentation Coefficient (Ka), and then we proceeded to calculate the value of the Competence Coefficient (K) to determine which experts are taken into consideration to work in this research, we obtained fifteen specialists with an average K of .9, which shows a high level of competence (Sanchez & Echeverry, 2010). After analyzing the validation questionnaires, some questions were readjusted, without affecting the substance of the question. On the other hand, a pilot test was carried out on a subgroup of the sample to review comprehension difficulties, identify questions that generated doubt, etc., and the corresponding checklist was used. The results of the pilot test were satisfactory and the instrument was considered validated in its content.

Construct validity (Exploratory Factor Analysis).

The factor analysis technique applied in the research is exploratory in nature:

1.-Study of the correlation matrix: it is necessary to study the correlation matrix to check if our data are adequate to perform a factor analysis. To do this, the correlation matrix must have a certain structure. To check this, the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO coefficient) has been used, in this case the value is .732, following Kaiser (1974) the value is acceptable, Bartlett's test of sphericity has a significance of .000, and the value of the determinant is 5.303E-9, so we continue with the analysis.

2.-Factor extractions: once it has been decided that factor analysis can give good results, we proceed to the extraction of the factors. In a good extraction, these values should be high (the closer to one the better) in all variables. The resulting table of communalities shows that the factors have a value greater than .547, so it is not necessary to eliminate any item from the factor analysis (Table 1).

The best represented items are: 2 (.857)-Mathematics. 8. (.829)-Learning to learn and innovation. 11. (.802)- Didactic competence.

The worst represented items are: 3. (.547)-Scientific. 7 (.583)-Cultural and artistic.

Table 1. Communities

	Initial	Extraction
Linguistic communication	1,000	,742
2.-Mathematics	1,000	,857
3.-Scientific	1,000	,547
Interaction with the physical world.	1,000	,719
5.-Information processing and digital competence	1,000	,751

6.-Social and citizenship	1,000	,652
7.-Cultural and artistic	1,000	,583
8.-Learning to learn and innovation	1,000	,829
9.-Autonomy and personal initiative	1,000	,782
10.-Intra and interpersonal	1,000	,619
11.-Didactic competence	1,000	,802

Extraction method: principal component analysis.

Source: own elaboration.

Table 1 shows the values adopted for the different items, with the highest and lowest scores.

3-Factor rotation: there are rules to determine the most appropriate number of factors to keep, for example, the one known as Kaiser's criterion (1974), which indicates that the principal components whose eigenvalues are greater than unity should be kept, although the most commonly used criterion is to observe the percentage of total variance explained by each component or factor, and when this reaches a cumulative percentage considered high, in this case the first 6 factors, which explain 71.675% of the cumulative variance (Table 2).

Table 2. Total variance explained

Com-ponent	Initial eigenvalues			Sums of loads squared by extraction			Sums of loads squared by rotation		
	Total	% variance	Cumulative	Total	% variance	Accumulated	Total	% variance	Accumulated
1	1,799	16,354	16,354	1,799	16,354	16,354	1,504	13,673	13,673
	1,492	13,560	29,914	1,492	13,560	29,914	1,444	13,128	26,800
	1,300	11,816	41,730	1,300	11,816	41,730	1,286	11,691	38,492
	1,195	10,866	52,596	1,195	10,866	52,596	1,270	11,545	50,037
5	1,053	9,573	62,169	1,053	9,573	62,169	1,258	11,438	61,475
	1,046	9,506	71,675	1,046	9,506	71,675	1,122	10,200	71,675
	,900	8,183	79,858						

Extraction method: principal component analysis.
Source: own elaboration.

Table 2 shows the initial eigenvalues and the sum of squared loadings of the extraction of the different factors.

4-Study of the factor scores: subsequently, the component matrix is calculated, and Table 3 shows the determination of factors and distribution of items according to the highest level of saturation by factors.

Table 3. Component matrix

	1				5	
Linguistic communication	,433	-,219	,273	,125	,257	,593
2.-Mathematics	,315	,181	,397	,104	,553	-,500
3.-Scientific	,672	,003	-,197	,160	-,116	-,131
Interaction with the physical world.	,337	,178	-,243	-,701	,080	-,131
5.-Information processing and digital competence	,326	-,651	-,353	,181	-,253	-,012
6.-Social and citizenship	,163	,415	,287	,188	-,546	,194
7.-Cultural and artistic	-,088	,720	,097	-,003	-,149	,158
8.-Learning to learn and innovation	-,444	,142	-,548	-,114	,369	,403
9.-Autonomy and personal initiative	-,475	,110	-,327	,560	-,019	-,353
10.-Intra and interpersonal	-,431	-,336	,509	,122	,165	,138
11.-Didactic competence	-,445	-,346	,295	-,493	-,336	-,203

Extraction method: principal component analysis.

Source: own elaboration.

In order to better visualize the distribution of items, the rotated component matrix is calculated (Table 4).

Table 4. Rotated component matrix

	1				5	
Linguistic communication	,169	-,083	,155	-,009	,826	,032
2.-Mathematics	,111	,017	-,029	,175	,028	,901
3.-Scientific	,607	-,171	-,179	,334	,076	,024
Interaction with the physical world.	,067	,006	-,840	-,067	,016	,065
5.-Information processing and digital competence	,281	-,700	,052	,212	,046	-,362
6.-Social and citizenship	,144	,565	,128	,463	,086	-,272
7.-Cultural and artistic	,095	,751	-,042	-,031	-,073	-,042
8.-Learning to learn and innovation	,013	,073	-,023	-,881	-,057	-,210
9.-Autonomy and personal initiative	,142	-,018	,501	-,191	-,688	,019
10.-Intra and interpersonal	-,572	-,085	,470	-,035	,214	,133
11.-Didactic competence	-,796	-,143	-,175	,222	-,178	-,187

Rotation method: Varimax with Kaiser normalization.

Source: own elaboration.

With the rotated component matrix, the different items can now be assigned to each factor (Table 5).

Table 5. Items integrated in each factor

Factor	Items included in each factor of the questionnaire.
I	3,4,5 3.-Scientific Interaction with the physical world. 5.-Information processing and digital competence
II	6,7,8 6.-Social and citizenship 7.-Cultural and artistic 8.-Learning to learn and innovation
III	9,10 9.-Autonomy and personal initiative 10.-Intra and interpersonal
IV	 11.-Didactic competence
V	1 Linguistic communication
VI	 2.-Mathematics

Source: own elaboration.

Next, Cronbach's alpha was calculated for the items that make up the first three factors (8 items), giving a value of .840, similar to the original scale, with a reduction of three items.

With all this, the factors provided by the factor analysis could be (Table 6):

Table 6. Factors and dimensions

Factor	Dimension	Items
A	Technological dimension.	A1.-Scientific. A2.-Interaction with the physical world. A3.-Information processing and digital competence.
B	Social dimension.	B4.-Social and citizenship. B5.-Cultural and artistic. B6.-Learning to learn and innovation.
C	Personal dimension.	C7.-Autonomy and personal initiative. C8.-Intra and interpersonal.

Source: own elaboration.

Correlation analysis (Pearson's P).

To perform the correlation, we subjected the Likert scale to the Mann‑Whitney U test for two independent samples, which explains that the data follow a normal distribution, so Pearson's P correlation must be used. Analyzing the research items according to their dimensions, the significant correlation (.05) is established between the following variables:

The significant correlations are:

1>9 (-0.267), 2>8 (-0.235), 3>11 (-0.309), 4>10(-0,258), 5>7(-0.343), 6>8(-0.180), 7>5(-0.343), 8>3(-0.246), 9>2(-0.267), 10>4(-0.258), 11>3(-0.309).

The highest correlations are:

A.-3>11 (-0.309), 11>3(-0.309): 3.-Scientific. 11.-Didactic competence.

B.-5>7(-0.343), 7>5(-0.343): 5.-Information processing and digital competence. 7.-Cultural and artistic.

Descriptive analysis.

Regarding the descriptive analysis, we will highlight the value of the mean of the different items.

Table 7. Descriptive analysis

	Media
Linguistic communication	7,9688
2.-Mathematics	6,4688
3.-Scientific	7,1313
Interaction with the physical world.	2,4188
5.-Information processing and digital competence	7,0688
6.-Social and citizenship	2,4750
7.-Cultural and artistic	2,3563
8.-Learning to learn and innovation	5,3250
9.-Autonomy and personal initiative	4,1562
10.-Intra and interpersonal	2,7063
11.-Didactic competence	6,6750
Sex	1,4938
Ethnicity	1,4188
Qualification	1,1951
Age	2,4875

Teaching Experience	2,3086
Faculty	1,6688

Source: own elaboration.

One-factor ANOVA.

The normal distribution of data allows us to carry out a more in-depth study, thus, we are interested in completing if there are significant differences of the independent variables with respect to the "teacher/student" factor (Table 8).

Table 8. ANOVA (teacher/student)

		Sum of squares	gl	Root mean square	F	Sig.
Linguistic communication	Between groups	2,271	1	2,271	,578	,448
	Within groups	620,572		3,928		
	Total	622,844				
2.-Mathematics	Between groups	18,270	1	18,270	4,350	,039
	Within groups	663,574		4,200		
	Total	681,844				
3.-Scientific	Between groups	31,279	1	31,279	4,555	,034
	Within groups	1084,965		6,867		
	Total	1116,244				
Interaction with the physical world.	Between groups	,237	1	,237	,053	,819
	Within groups	710,706		4,498		
	Total	710,944				
5.-Information processing and digital competence	Between groups	,775	1	,775	,115	,735
	Within groups	1061,468		6,718		
	Total	1062,244				
6.-Social and citizenship	Between groups	7,636	1	7,636	1,850	,176
	Within groups	652,264		4,128		
	Total	659,900				
7.-Cultural and artistic	Between groups	3,515	1	3,515	,806	,371
	Within groups	689,179		4,362		
	Total	692,694				
8.-Learning to learn and innovation	Between groups	12,462	1	12,462	1,984	,161
	Within groups	992,638		6,283		
	Total	1005,100				
9.-Autonomy and personal initiative	Between groups	1,348	1	1,348	,219	,641
	Within groups	973,745		6,163		

	Total	975,094				
10.-Intra and interpersonal	Between groups	3,478	1	3,478	,625	,431
	Within groups	879,716		5,568		
	Total	883,194				
11.-Didactic competence	Between groups	22,019	1	22,019	2,812	,096
	Within groups	1237,081		7,830		
	Total	1259,100				

Source: own elaboration.

The results of the competencies with significant values are shown below:
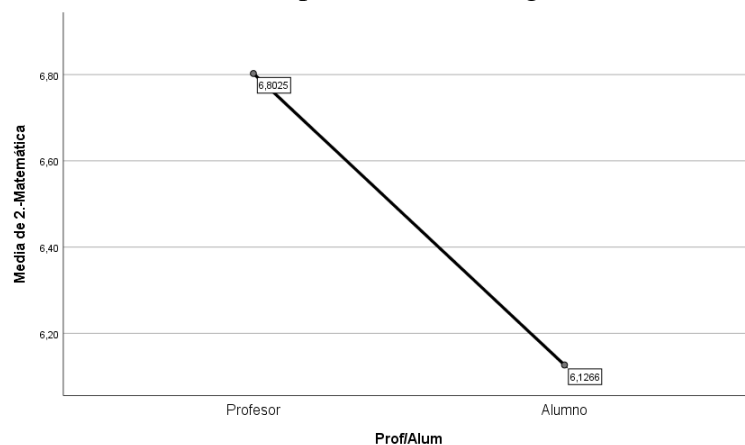
Figure 1. Mathematical competence

printed material, including text, illustrations, and charts, must be kept within the parameters of the 8 15/16-inch (53.75 picas) column length and 5 15/16-inch (36 picas) column width. Please do not write or print outside of the column parameters. Margins are 3.3cm on the left side, 3.65cm on the right, 2.03cm on the top, and 3.05cm on the bottom. Paper orientation in all pages should be in portrait style.

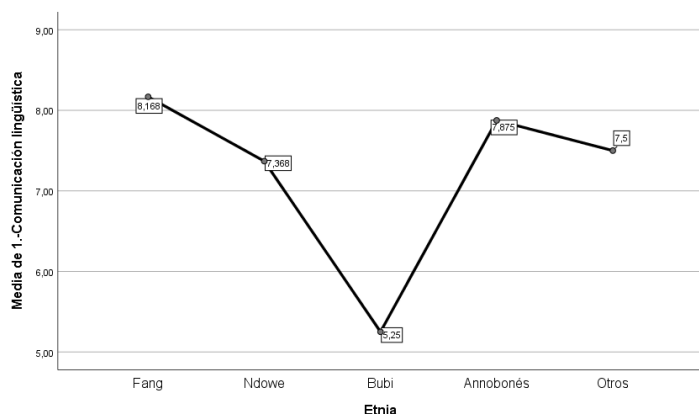Source: own elaboration.
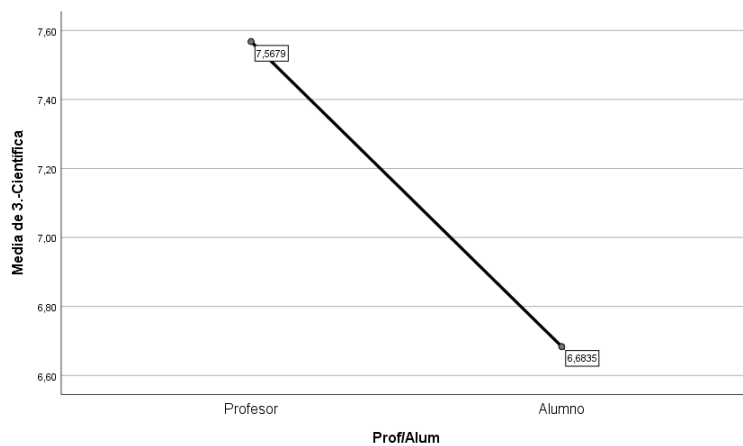
Figure 2. Scientific competence

We then performed ANOVA with the factor "ethnicity" (Table 9).

Table 9. ANOVA (ethnicity)

|		Sum of squares	gl	Root mean square	F	Sig.
Linguistic communication	Between groups	42,326		10,581	2,825	,027
	Within groups	580,518		3,745		
	Total	622,844				
2.-Mathematics	Between groups	14,131		3,533	,820	,514
	Within groups	667,712		4,308		
	Total	681,844				
3.-Scientific	Between groups	11,429		2,857	,401	,808
	Within groups	1104,815		7,128		
	Total	1116,244				
Interaction with the physical world.	Between groups	9,786		2,447	,541	,706
	Within groups	701,157		4,524		
	Total	710,944				
5.-Information processing and digital competence	Between groups	23,094		5,774	,861	,489
	Within groups	1039,150		6,704		
	Total	1062,244				
6.-Social and citizenship	Between groups	32,580		8,145	2,012	,095
	Within groups	627,320		4,047		
	Total	659,900				
7.-Cultural and artistic	Between groups	14,757		3,689	,843	,500
	Within groups	677,937		4,374		
	Total	692,694				
8.-Learning to learn and innovation	Between groups	23,916		5,979	,945	,440
	Within groups	981,184		6,330		
	Total	1005,100				
9.-Autonomy and personal initiative	Between groups	67,923		16,981	2,901	,024
	Within groups	907,171		5,853		
	Total	975,094				
10.-Intra and interpersonal	Between groups	84,762		21,191	4,114	,003
	Within groups	798,432		5,151		
	Total	883,194				
11.-Didactic competence	Between groups	41,673		10,418	1,326	,263
	Within groups	1217,427		7,854		
	Total	1259,100				

Source: Own elaboration.

The graphs corresponding to the competencies with significant values are shown below:
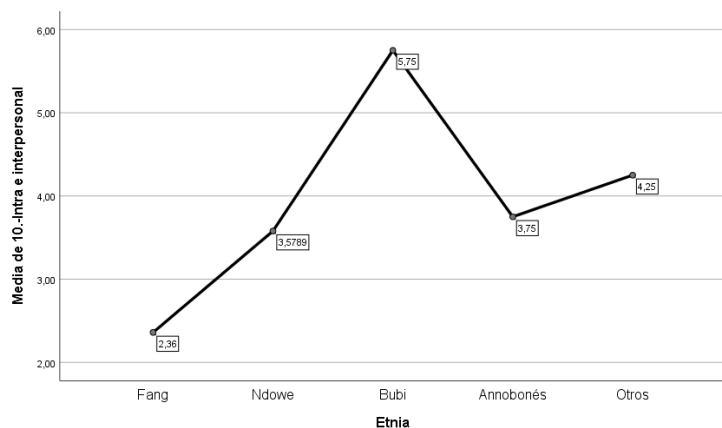

Figure 3. Linguistic communication

Source: Own elaboration.
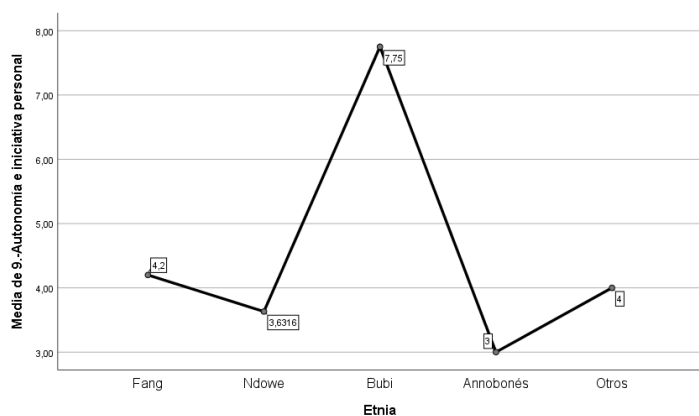
Figure 4. Autonomy, learning and innovation

Source: own elaboration.

Figure 5. Intra and interpersonal
Source: own elaboration.

3. Data analysis.

This research was conducted on a population of 81 teachers and 79 students at the National University of Equatorial Guinea, Bata campus. The objective was to analyze the perception of teachers and students on educational competencies at the National University of Equatorial Guinea (Bata). For the validation of the data collection instrument, we resorted to content validation, which was satisfactory, and construct validation, through exploratory factor analysis. The result of this analysis on the one hand confirms the construction of the scale, and on the other hand reduces it to 8 items, obtaining a reliability according to Cronbach's alpha of good (.840), similar to the complete scale, so it is validated in its construct. However, the exploratory factor analysis allows us to say that the items with the greatest importance in the scale are those corresponding to mathematical competence, learning to learn and innovation, and didactic competence. Similarly, the least relevant items are those corresponding to scientific and cultural-artistic competence. On the other hand, three factors are determined that regroup the items, dimensioning the scale, i.e., we can speak of technological, social and personal dimensions.

The Mann-Whitney U test allows us to determine that the data follow a uniform distribution, and preserve the null hypothesis, so we proceed to the correlation analysis with Pearson's P, highlighting the negativity of the correlations, which allows us to affirm, significantly, that the subjects who valued the scientific competence reject the didactic competence and vice versa, and on the other hand, the participants who valued the treatment of information and the digital competence reject the cultural-artistic competence, and reciprocally.

The descriptive analysis, in general, shows that the average participant is male, of Fang ethnicity, belonging to the Faculty of Education and aged between 25 and 36 years. If the subject is a teacher, he/she has a bachelor's degree and teaching experience of 6 to 10 years. On the other hand, in a score of 1 as the minimum value and 10 as the maximum value, the highest rated competencies are: Linguistic communication (7.9), Scientific (7.1), Information processing and digital competence (7.0), Didactic competence (6.6), Mathematics (6.4), Learning to learn and innovation (5.3). The failed competencies are: Personal autonomy and initiative (4.1), Intra and interpersonal (2.7), Social and citizenship (2.47), Interaction with the physical world (2.41), Cultural and artistic (2.3). The higher valuation for technological competencies and the lower valuation of social and personal competencies is observed.

The hypotheses were tested by means of a one-factor ANOVA, which was carried out for the variable "teacher/student" and the variable "ethnicity". Regarding the first factor, the significant differences are established in mathematical and scientific competencies, which are more highly valued by teachers than by students. Regarding the second factor, ethnicity, in relation to linguistic communication, the Bubi ethnicity is the one that values it the least, in relation to the rest of the ethnicities that have similar values. The competency of autonomy, learning and innovation is more highly valued by the Bubi ethnic group than

by the rest, who value it similarly. Finally, in relation to intra- and interpersonal competence, it is more highly valued by the Bubi ethnic group, and less highly valued by the Fang ethnic group, with the rest of the ethnic groups having an intermediate value. Without going into the significance of the different competencies according to ethnicity, which would be the subject of another study, it is clear that the perception of some competencies according to ethnicity of origin is decisive. With all this, the null hypothesis is rejected and we confirm the alternative hypothesis of this research: Teachers and students give importance to educational competencies.

To conclude, and connecting with the ideas of Zabalza (2007), Mas (2012) and Galbán & Ortega (2021) in the sense of the importance of competencies more of a social and personal aspect, we can start reflecting on how the process of implementing competencies in higher education should be faced at the Bata campus.

4. Discussion.

The research presented, although limited to one university campus, that of Bata, can be the beginning of other more extensive research that will provide data to government education officials on the peculiar situation of the context investigated. The research has been carried out, for convenience, for a sample of professors and students; in future research it would be acceptable to carry out this research on all the campuses that make up the National University of Equatorial Guinea, in order to appreciate the different perceptions that the different populations have about competencies.

5. Conclusion

The research presented analyzes the perception of teachers and students on educational competencies at the National University of Equatorial Guinea (Bata), through a sample of 160 teachers and students at the Bata campus. The relevant contribution arising from this research is the first scale of perception on competencies, validated in content and construct, in an Equatoguinean context. A first conclusion, derived from the research instrument, is that the study of the different competencies can be grouped into three key dimensions: personal, social and technological. On the other hand, the division between scientific competencies and those of a social and personal nature is perceived, and a rejection between competencies appears, which is neither positive nor constructive; social and technological competencies, for example, should have equal importance. However, we see that for the population studied, the star competencies are technological competencies, with social and personal competencies being relegated to second place. The last conclusion revolves around the greater importance given to certain competencies by teachers (mathematical and scientific) in relation to the students, or how being of one ethnic group or another changes the perception of social competencies. With all this, we have the basis for building, in the near future, the process of implementing educational competencies in higher education on the Bata campus on the African continent.

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