



**Acesso Aberto  
Angola**

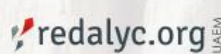
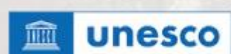
# **Qualitative analysis on Open Access and Open Data in Angola**

Work derived from the collaborative project among Redalyc UAEM, AmeliCA, MESCTI and U. Óscar Ribas funded by UNESCO for the development of an Open Access strategy in Angola

## **Project managers**

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This piece is the result of work carried out in 2021 as part of a collaborative project between UNESCO and the Redalyc Scientific Information System. The project had the collaboration of the Government of Angola through the Ministério do Ensino Superior, Ciência, Tecnologia e Inovação (MESCTI), the Universidad Autónoma del Estado de México (Mexico), AmeliCA and the Universidade Óscar Ribas (Angola), and its objective was to carry out a comprehensive diagnosis of scientific communication in Angola, a critical roadmap for the development of Open Access in the country and a series of technological developments in favor of non-commercial open scientific communication. The project resulted in a set of 38 works that are made public with the aim of contributing and influencing a technological, legal and knowledge infrastructure of non-commercial Open Access in Angola.

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## I. Presentation

The United Nations Educational, Scientific and Cultural Organization (UNESCO) together with the Scientific Information System Redalyc and the Oscar Ribas University of Angola conducted a qualitative analysis through four focus groups to identify Open Access and Open Data in the educational, scientific and student community in Angola.

The countries of the South, as well as Angola, as the Angolans themselves indicate, encounter similar problems in the publication and consultation of scientific research at both the global and local levels. The incipient scientific research in Angola, agree the interviewees, requires a boost and coordination, both from governmental and educational authorities, researchers and professors, for the publication and access to research works that do not represent economic and agenda limitations.

An overwhelming example that summarizes the current situation of scientific research in Angola was expressed by a governmental educational authority, who stressed that it is not only that abroad there is a charge for publication, and that it cannot be consulted by the author himself, other researchers, students or any other person without payment; but also pointed out that abroad, local issues, the agenda itself, are not of interest, such as *malaria*, a problem in the African country, which indicates that the research being carried out is not known, the results are unknown, and it is not known who are the researchers, professors and students who analyze the subject, which slows down its eradication. In 2021 "Forty percent of perinatal deaths in Angola are caused by malaria, whose overall incidence in the country's population increased in 2021, the government confirmed today." (*Prensa Latina*, 2021).

The progress in scientific research, which will benefit the African country itself, can be achieved, according to those attending the focus groups, through the publication in the "Diamond Open Access" system and with the promotion of a "National Repository", which will allow the publication and access, without economic and agenda limitations, of the scientific research of Angola. But this will be achieved, the interviewees indicated, with the joint work of all those involved, governmental and educational authorities, researchers, professors and also students, like the one already carried out by UNESCO.

In the focus groups it was also agreed that "Our country continues with very low rates of scientific output, and it is internationally recognized that Angola produces little science", so the joint work actions will increase the country's scientific research.

## II. Methodological notes

Through focus groups, four segments involved in higher education and scientific research in Angola were interviewed separately: 1) Governmental authorities in education, 2) Higher education authorities, 3) Higher education teachers and researchers, and 4) Higher education students.

The group interviews were conducted under four objectives:

1. Defining the behavior of access and consultation of scientific articles by graduate and postgraduate students.
2. Knowing how to proceed in the access, consultation, production and publication of scientific articles by professors and researchers.
3. Identifying the position of students, professors, researchers and authorities on institutional repositories and full Open Access vs. the commercial system.
4. Identifying the perceptions of governmental and educational authorities on support policies and benefits related to Open Access.

### III. Students

In terms of access to scientific research, undergraduate and mainly graduate students' access to scientific articles is through the institution's own Open Access databases. At international level, the SciELO electronic library stands out, avoiding payment in journals or paid access databases due to the "bad economic situation that prevails and is suffered" by students.

In addition to the economic situation, the students emphasized that access to local databases is very complicated. Access to scientific research databases is mainly from Portugal and Brazil, countries that speak the same language as Angola, which makes it easier for students to consult.

But it is not only the access to databases, the precarious infrastructure of the Internet is another factor that influences students not to access publications, "sometimes I am forced to wake up early in the morning at home, because that is when I have favorable Internet". Another interviewee pointed out that "research on Africa is very scarce", since in a research he carried out he only found five articles on his topic with an African context.

Regarding indexed databases, they indicated that not everything found on the Internet is of quality. When talking about an indexed journal "there is already a guarantee that it is of quality". The students indicated that they are "acquiring the experience to know what should really be selected".

For graduate students, where scientific research begins, one interviewee indicated that the publication of scientific research: "is something very serious. Where I am doing my doctorate there are committees and I have to present two articles". Another participant stressed that research should be a culture that is implemented in universities; theses should be published in articles and deposited in institutional repositories. A third student commented that in his institutions "they encourage students to publish, I have already published in the institution's journal", although he recognizes that many of the student projects are not approved.

One of the students interviewed, who is also a professor, stated that "the difficulties we have as teachers and researchers is the lack of funding, the lack of a scientific policy from the central direction, because science must respond to the problems and demands that the country presents, governments order research in universities to solve this or that problem". He also stated that

"governments should use science to solve people's problems. For example, now we have a very serious problem in the south of the country with drought, a problem that has lasted for many years, has the Academy ever presented a proposal to address this? Due to the above, he proposed that research should be combined through a single effort by the State.

Regarding the comparison of the two systems, open and commercial access, Angolan students tend to prefer Open Access owing to the lack of economic resources. "For my area, Medicine, I have a lot of information, however, these platforms are mostly paid. The open ones are the ones that work the most mainly because of the difficulty of payments. It is a general difficulty that we Angolans go through." He further explained in a personal capacity that publishing in Open Access "would be helping a lot of people to have access to the information we produce "We need to produce, supporting science." He also comments that pay journals are a guarantee of quality, which was supported by a second student who pointed out that "higher quality is found in the journals we have to pay for."

On the quality assurance of paid journals, another student noted agreeing with the statement, but it is a problem of discrimination. "Sometimes we find that what is free has less quality. But the issue is awareness to realize that it is not true that what is free has no quality. I think it is necessary to be aware of this and spread the production of scientific articles on free platforms are good."

Some students said they were unaware of Open Access publications, but pointed out that "if we have these Open Access journals and free publication, it is an incentive for us to get more motivation to do research and publish articles". Due to the fact, said another student, "Angolans publish little, and if there are few publications in digital databases it is probably a lack of incentives to publish. What is missing is to encourage people to publish now. I take the view that everything is published in Open Access journals".

For institutional repositories, when discussing the construction of institutional and national repositories, an attendee at the focus group pointed out that it is "really a very relevant issue because we live in an era in which there has never been such a high number of information as now in digital platforms and libraries. There are many Open Access journals, and if I had to pay for the publication of a scientific article I would do it because our reality requires it, a scientific research always requires a lot of sacrifice".

One example cited in the focus group of repositories and Open Access articles was Redalyc, "it is interesting and very rich in execution for us, they showed in Latin America how to develop an Open Access project versus a commercial one, which can connect and extend the benefits. It is necessary to unite the universities in the needs and issues to solve the diverse needs that we share".

#### **IV. Professors-Researchers**

The scientific publication of the professors-researchers of Angola, in most of the occasions, is in foreign journals because "we have few national journals, I think we need to increase the

dissemination to know where to publish and to look for indexed and refereed journals". Some of the countries to which they send their proposals are mainly Cuba, Ecuador, Venezuela, Brazil, Costa Rica and Portugal.

The interviewees pointed out that when it is published internally, it is done in some universities' own journals that are Open Access, such is the case of the journal of the Instituto Superior Politécnico Lusíada da Lunda-Sul (which is in its 19th edition) and the one of the Escola Superior Pedagógica de Bengo, which are indexed in platforms such as Google Academic and SciELO.

Research publications are mainly in international journals, in English and Portuguese, according to the interviewees. For the choice of publications, they consider that the journals should be prestigious or renowned. Some attendees emphasized that they look for Open Access journals such as the ones in SciELO, "journals where I do not have to pay to publish and I do not have to pay to consult the article. I look for a series of journals indexed in these Open Access databases indexed by these systems," said participant number 8, situation that was reaffirmed by participant number 6, who pointed out that "we prefer to publish in Open Access journals, first, because of the visibility of the Open Access journal, which has greater visibility. People consult more in Open Access than when it is published in the so-called Premiere, since they do not enter and will not download articles, because the institutions do not have accounts, they cannot pay."

When discussing payment for publication, participant 7 was emphatic in explaining that "they take care of their salary, and the articles do not reach the country (Angola), but I would be willing to generate knowledge that can be published and society moves forward. But it would be necessary that everyone could see it and learn from us." Participant 4, highlighted that it would be paid to publish if it gives prestige to the researcher, which is provided by international relations, "However, we know the difficulty is financial and it is not only of our volition. Imagine what it is to pay 500 euros for the article. It is really the Achilles heel", concluding that it offers more prestige to publish in payment.

On the same subject, Professor-Researcher 8, commented that Angola is a developing country, so "the investment to publish in paid journals should be used to solve basic problems", so databases and Open Access journals should be sought. He also emphasized that publishing in Open Access "should be included in the different instruments that regulate or evaluate science in the country" exemplifying that he does not know how a "Type A" journal in Angola could be rated or classified in other countries such as Spain, Mexico or Colombia.

On the point of the national and institutional repositories, the participants stated that there are some kind of "libraries" that collect the final documents and some higher education institutions have stored them. Participant 6 pointed out that a national and institutional repository is positive because "the work would be known and mediated with its own data. It would be accessible to the public, socially useful information, it will help other people to carry out their work. They may need this information, for example, on biodiversity resources, forests, animal resources. Information to help, for example, in the management of forests and other resources".

Interviewee 3 stated that "knowledge is only valid when it is shared", which is facilitated by the Internet, but "then we go to another level, which are problems of -access- to the Internet. If there are problems of access to information, we are not contributing to the development of humanity".



He said that they have physical repositories, "deposits of monographs, so digital repositories are required".

In order to have information in repositories, researchers stated that if the funding comes from the state, it should be open and published in repositories, but they question the research that is self-financed. "I think that for our level research should be funded by the state, it is very expensive and no one is willing to invest. But the benefits should even be collective. A commercial component will not benefit science itself, the policy should always assume that it should be collective and everyone should have access to copyright. The state should be the major funder." When the participants were asked if they are willing to transfer their copyrights to the commercial system, the unanimous answer was no.

For the interviewees, it is a priority to raise the rates of scientific research in Angola, which can be encouraged through free publications, with participants 1, 3 and 8 agreeing. Participant 8 pointed out that "the open system has more advantages because of the economic situations of the country", while speaker 1 explained that "Open Access would have another advantage because this would greatly facilitate the work published by professors to be known by students, which in turn, would also make the students themselves carry out scientific work guided by professors".

## V. Academic authorities

The number of teachers engaged in scientific research in Angola is low, according to the educational authorities who participated in the qualitative demoscopic study. Participant 7 stated that only 20% of graduates are engaged in research. The teachers who participate in scientific research vary greatly from each university or educational institution, but they agree that it is necessary to increase the participation of teachers, as participant 10 pointed out when saying "in Angola there is scientific awareness, but we have lost the strength to develop the contributions that sustain and support the development of the people for the development of science".

The participation of professors in the publication of scientific research decreases when they participate in international projects or when they publish in indexed journals with impact factor. The scientific publications they have in Angola are mainly for their final degree works. Participant 3 emphasized that "we have a lot of scientific output, but we have little publication. Professors do not have a basis for publication or a subsidy policy for the publication of these works".

Interviewee 7 indicated that one of the reasons for the low production of scientific articles is "because the quality publication process is long and very arduous and most of us are also engaged in other activities such as teaching and administration, so it becomes really difficult for us to publish regularly". For its part, the educational authority 5, pointed out that in order to reinforce and promote scientific research in its university they created a journal and teachers are asked to participate in the entire research process, not only in the publication: "How the production of this knowledge works, how research should be done, how research should be thought and organized in this sense, how the vehicles of scientific communication should be organized, which

can be done through Open Access publications, therefore Open Access must also be a political strategy."

On Open Access, the same participant 7 commented that "we do not always need to look for quality in Open Access journals, but we should invest a little in the qualification of our journals. It is important to talk more about this because indexing is free. Not all indexers charge and there are very good indexers that do not charge anything at all". Comment supported by participant 5: "Not all indexers are paid and there are very good indexers".

It should be noted that during the focus group some educational authorities indicated that they were not aware of Open Access journals, which do not charge for publishing or for access to research; in addition to the existence of confusion between the Diamond Open Access system, (without charge for any of the parties) and the so-called Gold Open Access, which is part of the commercial system because it charges the author for publishing, but is freely accessible for consultation. Participant 9 explained that "to publish in Open Access costs the researcher at least \$200 in an African scientific journal, one of the cheapest in the world, because if we go to other journals an article costs at least 900 euros. This is a problem that we and everyone must solve. Thank God we have Angolan journals and our rates are very low". The same participant pointed out that it is not only about publishing, "our concern is at the time of downloading the research. I had made a publication that was not an article, but a book from a Spanish academic publisher. I personally only have one copy of my own publication and I cannot work, that is to say, I cannot indicate to the students that they can access this work, it costs 70 dollars. Access to scientific research represents a serious problem in Angola". Participant 9 stated that in his institution they have access to paid databases, but there are only 45 codes that are distributed to all professors, with no possibility for students.

Participant 3 was emphatic in expressing that "we are aware of the difficulties of most African countries, which do not have the financial conditions to access these journals for which access to the article must be paid for". The same educational authority indicated that "we have the privilege of publishing in Open Access journals now and to look for articles, which are of high quality". He exemplified the advantages of Open Access: "In 2018 I published in a journal whose access is not open and the notifications I have from the journal in relation to the citations of this article are much lower than those in which we have Open Access. The publication of a new article was budgeted at around 500 euros, and I must honestly assure you that this value today is far above what my monthly salary is. We are sure that by publishing in an Open Access journal, also more people will have access to our work. I have preferred to do this for Open Access journals precisely to ensure that there will be greater access by readers and students".

The proposal of participants 3, 5, 10 and 11 is to support internal journals, which requires "a more futuristic vision, the institutions should guarantee, in general, an internal publication policy". But the journals themselves should be promoted, so that they are not only published, but are quality research, so that there should be funding to index the journals". On this point, participant 11 commented that: "it is important to talk more about this because indexing is free. Not all indexers charge and there are very good indexers who charge absolutely nothing", a proposal seconded by participants 5 and 7.

Authority 7 also commented that their researchers are encouraged to publish in Open Access. Participant 5 explained that "our journal is Open Access, it has eight nominations and all of them were achieved free of charge. It is a journal that has peer review, national and international experts in a blind way, which gives it a higher value", so he also advises professors to publish in Open Access journals.

Regarding institutional repositories, the speaker 4 indicated that they have a repository and everything from the academic department is there and is Open Access, and that a copy was sent to the national repository of the National Library, but emphasized that "there should be a national repository in physical and electronic format with Open Access for scientific research". The national repository would also serve to identify and know everyone's research. "It would be good and advisable to review the national content. He spoke as a personal example. I recently published an article and when I started to familiarize myself with the article of several colleagues here a colleague said I do not see the work of Angolans, when there are also many that address this issue" said participant 5. But it will not only serve to know the scientific research being done in Angola, participant 3 said that "if the results are taken to a national repository, this forces us to be accountable and allow that there is no repetition of a series of scientific results".

To increase scientific research in Angola, the academic authorities explained that strong and direct involvement of the government is necessary. Participant 10 noted that in his university there is private support for those who want to conduct research. But as indicated by participant 3, "we can affirm that there is no institutional policy for researchers, there is no such thing. They are random donations, contributions resulting from some cooperation. The government should seriously think about whether we really want productive scientific research or innovative scientific research". The same participant said that "the government is thinking of establishing funds to support research and scientific output, but it requires a clear policy, not random donations". The stimulus to scientific research is still deficient and it is not considered that it can produce economic returns in the short term. The universities that only allocate funds to finance research are very few because they are researches that do not have an immediate and visible return; we know that research has long term returns".

Participant 3 emphasized that "it is really necessary to have internal incentives for the creation of journals, to create conditions that stimulate researchers to participate in seminars, not only nationally but also internationally, to have a culture of publications, event memory, to make participation reports so that they can gradually serve in the construction of scientific articles.

## **VI. Governmental Authorities**

The qualitative study made with Government Authorities of Angola, coincides in pointing out the "almost absence of scientific output in Angola". In this regard, participant 7 stressed that "it is not due to the lack of work and initiative of teachers and researchers. In my opinion, one of the key elements missing to make this connection between the work and the rankings are these platforms,

and above all an organization of the work to value the knowledge produced through journals indexed nationally, but also internationally that can enter these platforms".

Participant 2 said that one of the problems we have is the counting of research at world level, because once a research or the final work of masters and doctorate is done abroad, it is counted in the foreign institution. In view of this, he indicated that "one way to start is to create a national mechanism to evaluate our production, the evaluation that is done today is indirect".

Coinciding with the other discussion groups, it was commented by government authorities that there is the problem of paying to publish and also paying to access journals, and in Angola, emphasized participant 2 "they do not have the opportunity to pay those amounts to have access to that article, which is the result of a scientific output and sometimes public as well".

The way to evaluate scientific output is mainly through international rankings, which participant 7 commented that "this evaluation that is done in this ranking is very limited and I have the intuition that we have lost a lot of information. But I confess that to this day the only way I have of evaluating scientific output is through these rankings, which as we all know, are not exactly so positive in terms of ranking position". About the limitations encountered by the government authorities who participated in the focus group, they indicated that an initiative that first values scientific output through a network of national journals and the national repository would be important and interesting.

Participant 3 commented that the national repository would not only be magnificent, but that it is urgent, because "scientific output made with public funds is still published in the media where we have to pay to have access". This point was supported by the government authority who "ratified the need to create a repository of free access to scientific information". One of the most visible problems for the publication of scientific research in Angola was exposed by the participant 8 when he pointed out that "researchers publish outside the country because they have nowhere to publish in Angola. For example, we do not have indexed journals. We do not have a national repository. It is sad when we see very well done articles or very well done research, with names of Angolan scientists, but in Portuguese, Spanish or British universities".

On the same topic, participant 6 commented that "the theses we did in Russia, in Germany, are in the Russian or German repository, just go there and download, but that same experience is non-existent in our context. That is why we are discussing the relevance of two instruments that should be seen as a nation process, a national project and not an author-driven project. The first step is to collect data, what we have". For his part, participant 8 indicated that "in the Ministry of Higher Education there was a project for a database of all Angolan researchers, what had to be done was simply to form a database that would be the starting point. We have Angolan researchers in the diaspora and through the embassies we can find out who they are, what they do, where they emigrated or where they did their doctorate".

The organization and collection of information as the start of work was exemplified by participant 4: "There is a lot of work going on in the study of *malaria*, but where is the work being done? What are the results? Who are the researchers? What is happening? For example, in a university to know what research is being done on the problem. Who should really start with this organization, that's where we need it."



"We need a joint mission, an integrated and future mission in relation to scientific output in Angola, to work together between the university and create a real dynamic functional research network that allows us to really have an impact on the main development problems of the country. Working together between the university and create a real dynamic functional research network that allows us to really have an impact on the main development problems of the country and from there we think about funding partnerships. What are the public policies? It must be seen in an integrated way in a way that really wants to drive scientific development completely. I believe that Open Access is a space that allows you to have greater visibility" was the comment of participant 3. To contribute to Angola's scientific research, he highlighted the proposal to create an Angolan Publishing Ecosystem. "Journals are a way to do it. Databases are a way to go to academic publishers, they are the way that would guarantee us the construction of a national production ecosystem and then our journals would produce; because we are constantly exporting knowledge and transforming the private."

In addition to the lack of scientific journals in Angola, the interviewees pointed out that there is also a lack of laboratories to increase scientific output, since when graduates of master's and doctoral programs return from abroad, they find it impossible to continue or apply the knowledge acquired abroad due to lack of equipment. In addition, it is necessary to create doctorates in the country itself and master's degrees to increase scientific research. The guests agreed on the need to create an integral system, a joint work, with the same objective of developing scientific research in Angola to be transferred to society.

Among the main problems for the Angolan publishing ecosystem, participant 2 highlighted, there is technology: "when I say it is technology, it is not only in the sense that our institutions are prepared, but also because of our level of access to technology, which is very low. Access to technology, to the Internet, will allow high school students to access scientific research. We have the experience at the Pedagogical School with our students coming to knock on the door of the area in charge of editing the journal to ask for PDF copies of the articles because they cannot access the site because they do not have data to access the site. I am talking about the problem of technological inadequacy much more than the institutions. We need to create strategies for them to have access and maybe the database doesn't need to be only on the Internet." Another problem highlighted in the focus group by participant 3 was the one about electric power: "the lack of electrification affects to have a repository, even in scientific journals. We do not have stable power".

Among the problems pointed out in the focus group, "the lack of a policy of incentives for researchers, the financing of scientific research projects and the creation of indexed journals that allow the publication of results, both for researchers and students" was also noted. In particular, about the stimulus policy, participant 4 said that "a national policy of scientific research with those who really think science and not just think at random is required. I think it would be opportune for the Minister of Higher Education to bring together intellectuals and academics to find this general approach. We can plan and redesign our scientific research policy with results in three, four, five or ten years".

Participant 6 stressed the organization as the nodal and starting point of the work for the promotion of scientific research in Angola, "I think we are too disorganized to start and we need

to completely change the way we are looking at our higher education. We are producing students who do not even know how to do research". To conclude, participant 7 stressed that "the UNESCO initiative is possible and should be part of our objectives, such as creating the repository in two years, with a comprehensive training organization of human resources teams".

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