

# International Journal of Human Sciences Research

## COFFEE WITH DRAWING

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**Abstract:** In the moment of isolation, complying with social distancing due to the COVID-19 pandemic, a concern and an anxiety emerged among the *online conversations* of teachers in the Graphic Representation area of the Academic Unit I of the Federal Institute of Education - IFPB, João Pessoa *campus*. question: how could we contribute to society in this context? Soon came the answer: sharing! This was the key word that led us to the construction of an *online event*, called Café with Drawing. And why Coffee? The objective was to create a welcoming and contributory experience, which would bring reflections and current challenges in our training area, based on an innovative approach and through interdisciplinary content, that is, without necessarily being linked to any menu and/or discipline. The word Drawing, on the other hand, emerged from the expectation of discussing new possibilities for presenting ideas related to graphic representation and spatial perception, seeking to improve understanding, through assertive and innovative communications that can effectively contribute to the generation of new forms of knowledge, and at the same time favor active learning, especially in the

areas of Architecture, Engineering and Civil Construction. Thus, it was born the Café with Drawing, an online event in 3 days, aiming at the sharing of technological knowledge between Graphic Representation teachers in the field of civil construction and students from the internal and external communities, as well as professionals from various areas. Based on this interdisciplinary and innovative approach, anyone interested in discovering new forms and techniques of presentation and/or creation linked to the processes of graphic expression and active learning was invited to participate. In addition to the diversity and level of academic training, the event had audiences in 10 different states in Brazil and in more than 80 cities. After 15 days of realization, it reached an average of 1,000 views per day of the event.

**Keywords:** Share, *online event*, reflections.

## INTRODUCTION

In view of the particularity of the moment, the event was entirely virtual, from its conception (all meetings were *online*) to its execution (live transmission on the IFPB *Youtube channel*).



Figure 1, 2 and 3 - Posts promoting the event on social networks

Source: Authors, 2020.

The event coordination held the planning meetings via videoconference, using the *Google Meet tool*. The team consisted of: 6 (six) professors from the João Pessoa *campus*; 4 (four) students from the Technical in Buildings course integrated into high school, on the João Pessoa *campus*; 2 (two) invited professors from the Cajazeiras and Princesa Isabel *campuses* and 1 (one) professor from Faculdade Três Marias, which was part of the social partner institutions of the project. Even in the first meetings, we characterized the event as an extensionist action of the research group *Percepção Espacial e Representação Gráfica PERREP-IFPB*, when we identified that the knowledge made available during the event would advance beyond the walls of the IFPB, João Pessoa campus, and together with four of the largest educational institutions in Paraíba, namely UFPB, UFCG, UNIFACISA and Faculdade Três Marias, our social partners, we expanded the dissemination of *Café com Escolha*. Thus, after registering in Public Notice No. 01/2020 - Continuous Flow: EXTENSION EVENTS - Continuous Extension, we ensured that all registered participants could be certified by the Department of Innovation, Graduate Studies, Research, Extension and Academic Challenges - DIPPED.



Figure 4 - *Online meeting with the event's organizing team*

Source: Authors, 2020.

Of the 6 (six) professors from the IFPB, *campus* João Pessoa, 5 (five) were speakers at the event, along with the guests, in order to enhance the exchange of knowledge *between campuses*. The support team, made up of 4 (four) students and 2 (two) professors (one social partner) was subdivided into 2 (two) groups: one for dissemination and the other for accreditation and enrollment. The publicity team managed the *Café com Escolha* account on social media with informative *posts* about the program, registration deadlines, dates, speakers' CVs, data from social partners, expanding the reach of this tool. Members of the accreditation and registration department created, within the *Even3 platform*, a page of *Café com Escolha* to receive registrations in advance and be able to certify those registered. It was an important channel for transmitting information via *email* to registrants, such as, for example, the need to download the applications needed to interact during the event, reading *QRcodes*, access *links and, finally, certificates*.

The event was broadcast live on the IFPB *Youtube channel*, with the speakers, the mediator, 2 (two) sign language interpreters and the person responsible for the broadcast in a *Google Meet room*. The *Youtube link* was previously disclosed on the social networks of the event and social partners, as well as sent by *email* to subscribers. The chat was free to access, but the participation check of those registered for certification was held in real time during the event, by filling out a digital form on *Google Forms*, prepared by the accreditation team. In this same device, important questions were elaborated, which generated an immediate evaluation of the participants regarding the event and that made it possible to draw a profile of the public reached.

## THE EVENT

### DAY 1

The event took place over three consecutive days, with a central theme for each day that permeated the presentations and discussions of the speakers, as well as the debate through questions sent by the participants. The theme discussed on the first day of Café com Escolha was through the question: how do you present your ideas? Professors Juliana Sá and Lilian Ferreira Cardoso brought reflections on how evolution in the information age came to trigger the innovation age years later. And how, at this moment, we are observing technological and scientific advances at a breakneck speed and unprecedented in history, which constantly brings us new discoveries in areas such as artificial intelligence, biotechnology, robotics and others.

However, these new technologies, especially in the field of graphic representation and communication, despite being innovative, pose the challenge of how to best incorporate them into the process of communicating ideas and their representations, in the various fields of activity: classroom, labor market, social networks.

Within this context, tools and techniques were presented that can help in the presentation of ideas in an objective, collaborative way and that generate connections between the presenter and the audience, whether in the professional or academic field. Through *Google Jamboard* and *Microsoft Poll Everywhere*, for example, the possibilities for interaction and favoring collaborative and efficient work were highlighted. And based on the *Elevator Pitch methodology* and the *Prezi* tool, we were invited to learn about creative, innovative and free ways that can contribute to building assertive and impactful communication.



Figure 5 - Live broadcast on the 1st.

Source: Authors, 2020.

### DAY 2

On the second day of the event, professors Manoel Farias and Marcela Sarmiento discussed possibilities for drawing and representation in Architecture and Engineering that are present in contemporary times, inviting the public to think outside the box and explore new perspectives on the subject. Techniques and applications were presented that have been consolidated in the current context of graphic representation, particularly in the three-dimensional simulation of objects built and/or to be built, such as hyper-realistic images, which translate concepts into visual data capable of seducing the public, transmitting and exacerbating the main qualities of a project, whose primary objective is to publicize and sell it based on the visual impact of the image; the architectural collages, which are produced from the superimposition of textures and digital images on a fast and simplified model, generating representations that are configured as a hybrid between the real and the conceptual - there is no compromise with the perfect simulation of reality, but yes in allowing an exercise of imagination on the part of the observer; illustrations for architecture, which also deal with the digital manipulation of images, but in this case with an approach that uses elements of graphic design and axonometrics, which are orthogonal cylindrical projections



on an oblique plane in relation to the three dimensions of the body that will be drawn, a technique widely used in architectural design for a long time, but which ended up losing space for other types of three-dimensional representation produced on a computer, such as realistic images.

Another theme addressed on that day was the application of augmented reality in the field of civil construction as a tool for design, analysis, visualization and learning, highlighting its potential for simulating buildings and construction systems in a semi-immersive manner, which enables a rich understanding of these elements. before execution, allowing analysis, compatibility and troubleshooting. With the use of increasingly accessible programs and applications, the use of augmented reality in architecture is consolidating itself as an alternative to mix the physical and virtual environments. The main attraction of this mechanism is the ability to project in the real environment what was idealized by the designer in the digital environment and thus anticipate the final result, facilitating understanding, decision-making and the compatibility of complementary projects. Both in architecture and engineering, the anticipated visualization of forms can speed up the evaluation of results and simulations, as well as help the manufacture of structural components and streamline the daily work. The impact is perceived in the acceptance of the projects, in the final cost of the work.



Figure 6 - Live broadcast on the 2nd.

Source: Authors, 2020.

### DAY 3

On the third and last day of the event, we opened the doors of the IFPB to present the graphic representation, the creative process and the technologies within successful projects developed by students and professors from three different campuses: Cajazeiras, Princesa Isabel and João Pessoa.

The experiences lived by three professors were displayed, demonstrating the use of technology in teaching, research and extension, thus revealing the role of the educational institution in promoting a multi and interdisciplinary education, turning its eyes to the social, forming in addition to professionals, people aware of social demands. From the exhibitions, the importance of the educational triad was perceived: teaching, having its role of training professionals in a technical bias, based on science; research, being the forerunner of new searches and discoveries; and the extension, which comes to unite all this knowledge and apply it in practice, overflowing the teachings it brings and receives, through the exchange of knowledge between scientific knowledge and popular knowledge.

In this context, the graphic representation was the central theme, along with the technologies, revealing different forms of application, contributing to the educational process inside and outside the institution. On this day, we made it possible to connect the

CACTUS extension centers in Cajazeiras and Princesa Isabel with the Extension Center for Sustainable Technologies - NETS.



Figure 7 - Live broadcast on the 3rd.

Source: Authors, 2020.

Professor Antônio Júnior, from the Cajazeiras *campus*, exhibited project-based methodologies in teaching technical drawing, introducing the use of BIM technology. Following the same theme, professor Rinaldo Rodopiano, from the Princesa Isabel *campus*, portrayed several projects based on active methodologies, developed in the field of teaching, research and extension in a multidisciplinary approach, such as a reproduction of the historic facades of Princesa Isabel using the 3D printer, to the creation of a prototype that helps the visually impaired to learn technical drawing. Professor Roberta Paiva presented the *Parklet IFPB* extension project, from conception to the technologies involved for approval, assembly and dissemination of the furniture,

from which the experiences extracted will be detailed here, seeking to disseminate these experiences, reporting the processes used, the impacts and the results.

Conceived from the practice of sustainable furniture workshops, started on the João Pessoa *campus* in 2017, considering the research of successful ephemeral urban spaces, the extension project “*Parklet IFPB*” emerged with the aim of making a mini square using public parking spaces with the purpose of re-appropriating spaces. Some partnerships were made between students and the community of the Jaguaribe neighborhood, in João Pessoa - PB and public bodies, such as the Urban Mobility Department (SEMOB).

The process began with sketches, sketches that sought to integrate needs, promoting a space capable of meeting the objectives of the proposal, generating a viable leisure environment that could be appropriated by all. The use of modeling in the graphical representation was of fundamental importance, helping to simulate the construction details of the proposal. Through this resource, the forms of construction could be foreseen, having an idea of the amount of raw material (Pallets) needed to make the Parklet IFPB, thus avoiding waste and predicting an estimated time for production. The project was carried out in a few stages, in order to organize the execution and to plan the time required for each activity.



Figure 8 - IFPB Parklet.

Source: Authors, 2020.

The inauguration of this space took place on October 23, 2018 with a forecast stay of 30 (thirty) days, the Parklet IFPB had its stay extended due to the high appropriation of the space by the academic and external community, remaining for 06 (six) months until be removed from the site.

To publicize the proposal, several resources were used that happened from the beginning of the project until after its completion. Posters were generated from the Canva website and, for greater dissemination, an Instagram @ParkletIFPB was created. This can be accessed through QRcode, presenting animations generated from modeling and augmented reality – AR in its publications, making possible a better experience for those who came to know it. The use of different technologies linked to graphic representation contributed to a better understanding of the project at all stages, from conception to dissemination.

## REFLECTIONS ON THE EVENT

At the end of the event, the entire organizing team evaluated the results positively. There was a total of 333 (three hundred and thirty-three) enrollments through *Even3*, of which 115 (one hundred and fifteen) IFPB students (from all *campuses*), 165 (one hundred and sixty-five) students from other institutions and 65 (sixty-five) professionals. In percentage terms, the public outside the IFPB was 69% (sixty-nine), that is, our work with social partner educational institutions was extremely important so that our objective of sharing knowledge beyond the limits of our institution was, in fact, achieved.

The public benefited from the event was composed of more than 8 (eight) major areas of training, with the subareas of Architecture and Civil Engineering being the most voluminous. We obtained applications from people with an academic background from

high school (more than 60 applicants) to doctors, going through graduation, masters and specialization.

In addition to the diversity and level of academic training, the event had audiences in 10 (ten) different states in Brazil and in more than 80 (eighty) cities. After 15 (fifteen) days of realization, the Café with Drawing reached an average of 1,000 views per day of the event. These are very expressive numbers that reflect the excellent work of the entire team and the involvement with the social partners.

One more aspect to be highlighted in this experience was providing our students with an experience that goes beyond the classroom: participating in the organization of a virtual event in their technical area of expertise. According to the testimonies of the students of the organizing committee, this experience allowed them to acquire knowledge before, during and after the event.

“This way, we, who are part of the student body, feel honored to be invited to cooperate with the entire organization team, adding values and collaborating with the propagation of teaching, in the midst of a completely new and unexpected scenario for education. (...) We know how fundamental research, extension and teaching are in a student's life and how much they contribute to a lifetime and, therefore, we are engaged in participating in such activities, learning and improving our knowledge, with the aim of bringing the same feeling to other students and the student body.” (Coffee with drawing, p. 64, 2021)

The experience of the Café with Drawing in the student life of the students of the organizing committee, proved the importance of extension and research inserted in the scope of teaching. These have the role of integrating knowledge and applying it in a practical way, in order to extend learning, in addition to helping to train technical, human professionals concerned with social demands.

The bias of an *online event* allowed us to

extrapolate the physical limits of campuses. Although it was all idealized and executed by a group of people linked to the IFPB, the result of the event exceeded expectations in terms of the interaction of a heterogeneous public and with representation in several states.

The exchange of knowledge between professors and students allowed the perception of feelings such as gratitude and maturity that the extensionist experience makes possible. The students of the PERREP support group were always enthusiastic about the opportunity, and, despite the circumstances, closer to the IFPB and the João Pessoa campus.

Holding this event shows us that it is possible, even in adverse situations such as the context of the COVID-19 pandemic (which caused the interruption of our academic activities), to act significantly and continuously in the process of building a better society for all. from education, using the means that information and communication technologies make available to us. The positive results and the testimonies received lead us to carry out other initiatives as a result of this event, such as the production of articles and an interactive e-book with the content discussed, and the production, at an opportune moment, of new editions of the event, always with the aim of sharing knowledge and contributing to improving the quality of life in our society.

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## **EVENT TECHNICAL TEAM**

**Coordinator:** Marcela Fernandes Sarmiento

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**Student Collaborators:** Juliana Dias da Silva Bezerra , Valderedo de Souza Mata , Gislayne Pontes Amorim , João Pedro Romagnoli Franco Araújo

**Social Partners:** Rosimery da Silva