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A METHODOLOGICAL APPROACH WITH VBL (VIDEO BASED LEARNING) ANALYZING THE REPRESENTATIONS OF THE CAVE FIGURES OF THE ALCOBAÇA VALLEY: BUÍQUE - PE

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ABSTRACT

The Catimbau Valley, located in the municipality of Buíque-PE, which is located at the meeting of the mesoregions of the Southern Agreste and the Sertão of Pernambuco, having

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its biome predominance of the Caatinga, this biome being endemic to the Brazilian Northeast; with a favorable relief and of great interest in field experiences, sculpted in the Borborema Plateau with presence in the constitution of the landscape Massifs and High Hills, with the range of 650 to 1000 meters. With all the phytophysiognomy encompassing its natural attributes, which makes this whole environment even more interesting for the study of the place, it is given through the cave paintings found in the rocks present there, with emphasis on the Archaeological Site of the Alcobaça Valley with records in the mother rock, as well as records in fallen blocks, marked in different times and peoples, Historical marks left by the groups that passed through there are observed. Included in the imagery framework is the category Tradition Agreste (Martin 2000), which is categorized by the singularities of the images made, as well as the techniques for marking the relief. The rock art made by the primary peoples of the Catimbau region contributes to the teaching of Geography, thus allowing an understanding of the geographical space and its dimensions. In the didactic excursion, the students of the Geography course were able to analyze the changes in the way of life of the original population, as well as the main physical/natural transformations of the Catimbau Valley. Given the current scenario of basic education in the teaching of geography, the methods used collaborate with traditional teaching, in the way in which teachers reproduce their knowledge and information, without any concern with the construction of knowledge of their respective students, in this way the work in question proposes the break of the traditional paradigm. The objective of the research is to address how cave figures can collaborate in the teaching of Geography and assist in the representation of geographic space for the understanding of the spatial dynamics that occur in the territory, seeking to attribute photographs to the teaching of Geography, and break with the traditional form of teaching in basic education. The methodology used is based on "Video Based Learning", through the recording of the trail of the Alcobaça Archaeological Site by the students, to be used in the production of didactic material, being a video that tells the route of the trail, displaying the wall with the respective cave figures, and the realization of the didactic activity entitled "Geography written in the Reliefs", in which students will draw the cave figures that most caught their attention and what meaning was attributed to the figure. As a result of the research, we will have the elaboration of the expository video (in editing), and the practical activity carried out in the classroom with the students, which brings different memories and meanings. It is concluded that addressing the use of representations of cave figures in the teaching of Geography collaborates so that students can innovatively analyze the territory, therefore, it is notorious that didactic excursions are valid and of such importance for future professionals to be able to develop didactic methods that can be applied inside and outside the classrooms.

Keywords: Teaching, Catimbau Valley, *Video Based Learning*, Basic Education.

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INTRODUCTION

The new technologies as they evolve begin to integrate and be used more widely by society, in their multitasking. In this way, they can facilitate the daily actions of those who use them, to achieve their desires and needs. The methodological dimensions for teaching also accompany these transformations, such as active methodologies, which seek to bring a new vision in the approach to content in classrooms and how these teachings can be made available to students.

In the way in which geography as a science has expanded and modernized since its beginnings, with the need to demarcate and describe new territories, it is noted that cartography is an evolutionary resource until then in its initial era, GPS location systems are the result of a technical-scientific revolution that resulted in greater precision of the territories of the earth's surface.

The collaborative path of technology and its use linked to education is a path to be used by teachers, since in recent years the search for new methodologies to make education broader and of democratic access permeate the school environment. Measures such as the insertion of the use of videos for education is the proposal of this article, in which, together with field classes, will result in the proposed central activity.

From the technical-scientific informational revolutions, the evolution of information and its means of access has been adapting and renewing itself for ages to satiate the anxieties and desires of society. With education it is no different, at the same time that the transmission of information is renewed and adapted to the tools of propagation, new means for education and the use of methodologies that link technology with information transmission emerge.

The use of new means to disseminate education is strongly influenced by technological advances. Society yearns and seeks information, so the active methodology seeks the role of protagonism to the student, giving the teacher the feat of teaching while sharing previous knowledge of his students. Dealing with active methodologies is to include the student's work, as a means of knowledge production, in which Adolfo Tanzi Neto (apud Santos, 2022) states. "And, in this line, it is necessary for the teacher to create spaces that provide the development of the student through different ways of relating to the contents".

Active methodologies assume a new role within education, with contributions to the insertion of technology in the educational environment, within the perspective, the VBL acronym for Video Based Learning, which in Portuguese is designated to the method of

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learning through videos. An area that seeks to break with the operating modes of education based on traditional precepts, bringing an active methodology linked to technology, with a large-scale global reach.

From a pandemic scenario and social isolation, to stop the spread of the virus as seen in the year 2020-2022, the methodology gains strength in addition to the need for continuity in the propagation of teaching, the ease of access to technologies that collaborate for a greater dissemination of content, before society, were vectors for an acceptance of the method. The strong growth in different means of technical information propagation, linked to tools such as micro learning, which focuses on the transmission of content in an objective and direct way, in a short period.

Like Thuinie Daros (apud Modena, 2020), he states that the methodology, in addition to serving all ages, as long as time and content are appropriate for the target audience in which the video is produced, also brings more interaction to the molds of existing videos, these being the main pieces for the gear of knowledge to be moved, with the result of being attractive to those who will attend and the final goal, which is given to the absorption of knowledge is completed. The use of VBL provides a series of favorable actions, being a methodology that encompasses teaching and learning, the method, uses the high expansion of the means of propagation and technological advances, to go even further than what can be done. Through accessibility with greater positive value when reaching tools that provide access to this tool, with assertive directions, they tend to enhance the cognitive actions of students, in the guidelines of what wants to be propagated.

Given the evolution of the social and material environment, we take possession of a new aspect of the students present in the classrooms, the focus on the teaching process changes the face of the new scenario in which we live. The protagonism directed to students, bringing the student as the main focus in the learning system, seeks their improvement in terms of determination with studies, in places beyond their classrooms, since virtual learning environments are, in the sense that these new environments have the same equivalence as physical classrooms.

The tool, which in turn appears as a strong potential in the educational environment, emerges as a way out, in which social isolation was not able to interrupt the dissemination of learning in many schools. With exclusive resources, treated in the focus of learning being more objective and direct, it also moves on to the way of making knowledge more attractive and playful for those who consume it, being able to gradually replace the traditional ways of

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teaching, in which a classroom (physical environment) and the figure of a transmitter of knowledge (the teacher) are necessary. Facilitating teaching, the breaking of the physical barrier, enables teaching with a larger scale reach to those who cannot have access to the locations where the study is offered.

However, students' interest in learning tends to increase, through the experience that videos provide, as well as the immersion of young people, they tend to go to videos as a way to pass the time, educational videos tend to use the molds, making education more attractive and a new way of experiencing knowledge. During the last few years, institutes and universities have grown in the use of virtual teaching environments, using videos as a propagation of teachings, to reach the largest possible number of students present in the courses, thus making it possible to spread knowledge more widely.

METHODOLOGY

ACTIVE METHODOLOGY AND GEOGRAPHY: VIDEOS AS A BASIS FOR THE DEVELOPMENT OF KNOWLEDGE.

The interaction of technical, scientific and informational advances, enable a new vision within the teachings, Geography is present in this environment, from the moment that new technologies transform the means of study, seen from the evolution of cartographic studies, which linked to location systems, faithfully build the portions of land present on the earth's surface. From this interaction, new educational tools, forms, and methods emerged through the convergence between digital audiovisual media and the educational sector (Fiadotau, Sillaots, Ibrus, 2019).

Taking into account the applications and differentiations of Sprenger (2008), the learning modes can be separated into three modes, in which each one has its own characteristics and specific group, which are: auditory, visual and anesthetic; In which the teachings are understood in particular ways, it is up to the auditory students, who associate and learn when they hear the teachings, whether they are theirs or coming from others, with extreme sensitivity to the sounds that occur in their environment, and there are visual students, to whom they weave their form of learning, through what is shown in the form of data, images, videos or films, also mentioned, there are students who are synesthetics, this group comprises students who have learning through touch and movement, learns from their physical experiences, in the construction of knowledge given by practical actions.

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The use of videos for learning, although presented as new techniques, its beginnings refer to the final decades of the twentieth century, in which they are necessary, as a new learning alternative, bringing informative oral communication, through video records, from a teacher to transmit knowledge, even though they resemble the traditional form of content transmission, The videos bring a more active and autonomous learning action of the students.

The results of these techniques are observed in the way in which students are placed in a greater interaction with teachers, due to the means of providing a path of mutual learning, thus resulting in a greater responsibility of the student in the construction of his knowledge, as a rule, the student will build his knowledge in a more active and investigative way, without being just reproducers of a transmission of information, sharpening the critical and interpretative sense of the students.

Just as all technology has its role within teaching, field classes, in turn, bring the best in the interaction between teachers and students, the image observation and the immersion of knowledge in the external environment, bring out the perceptions of the subject addressed, contributing positively to the learning process of the geographical space. Among the perceptions, the field class is one of the vectors that enable the preparation for the creation of the activity proposed in this work.

The sense of approximation of the teachings with real life, through field classes, even with their complexity of understanding, allows a feeling of love for the discipline to be created, according to Carvalho (2011). Inserted in the context of a methodological tool, the field class comes to develop in the student a practical knowledge, linked to his previous knowledge or not of what place addressed/experienced, makes him aware of the real space and the movements and meanings that reside there and are employed.

The use of field classes as a methodology, for Geography, inserts a range of contexts that can be analyzed separately or with a broader focus, dealing with human configurations and their articulations as a society that shapes and employs a new meaning and function in that space, as well as treating the natural environments, revealing their geological past and what actions they made their present to be, in addition to social interactions that permeate the environment.

Resulting from the videos and their natural and human aspects, the field class, directed to the Geography Degree course at the University of Pernambuco, Mata Norte

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campus, the construction of knowledge through experience and the videos made from the trails carried out, weave a new vision about the territory.

The VBL is the tool that follows the precepts that seeks to change the form in video production, in which the information to be passed on takes a more active form, as well as the speech of the Heads of hybrid courses and active methodologies at Unicesumar and co-founder of Téssera Educação, Thuinie Daros (apud Modena, 2020): "The VBL focuses on producing practices that modify the passivity of traditional videos to others with a high dose of interaction".

Bringing a new look to education and maximizing its results to the point where education is not limited, only the classroom or the space that a school holds, goes beyond the physical space. "The methodology qualifies the interaction with students, is easy to access, intuitive and can be combined with other practices."

Inserted in the field of active methodologies, the use of videos for teaching directly and objectively, containing in their content information of greater absorption of knowledge and with the techniques of their mode of production.

The means of producing videos is based on tactics such as the transmission of content involving a well-written narrative and in which it involves those who seek to learn, to have the greatest success in transmitting the content. When used within the educational contributions to geography, it expands the area of knowledge construction and its forms of use.

The composition of the video follows a structure, with its informational script, aiming to expose the entire concept that expresses that landscape, as well as the configuration and its objects present in the media in which the videos are produced, thus giving visibility and real importance to each element that will be shown, for the composition of concepts and analysis of learning, according to previous knowledge on the topic addressed. To which it follows the guidelines of the resulting activity entitled "Geography Written in the Reliefs" which will be described in this article.

In search of a better understanding of the theme addressed in the next item, some elements of the history and characteristics formulated so far about the Agreste tradition were addressed, The Alcobaça site, located in the archaeological area of the Jatobá valley, (Buíque, PE) which belongs to the great basin of the São Francisco, would be a shelter of this tradition, with the exception that it is a shelter under rocks intensely occupied for long periods, mainly as a cemetery where incineration was practiced and where pictorial

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practices were also carried out in different periods, even if the total set of picture panels maintains a unity of style.

ANALYZING THE REPRESENTATIONS OF THE CAVE FIGURES OF THE ALCOBAÇA VALLEY: BUÍQUE – PE

The Alcobaça Valley is a region located in the state of Pernambuco, in northeastern Brazil, which is known for being home to several archaeological sites with cave paintings. These paintings are vestiges of an ancient culture that inhabited the region about six thousand years ago. It is composed of several archaeological sites spread over an area of approximately 30km², in the municipality of Buíque, in the Pernambuco hinterland. The region is formed by sedimentary rocks, mainly siltstone and quartzite, which are suitable for rock paintings due to their smooth and uniform surface.

The cave paintings found in the Alcobaça Valley region are attributed to the prehistoric culture known as the Northeast tradition. This culture, which developed between 5500 and 2000 B.C., is characterized by its primitive technology for the production of stone tools, as well as an economy based on fishing, hunting and gathering fruits. Composed of geometric figures, such as lines, dots and circles, as well as anthropomorphic and zoomorphic figures, representing humans and animals.

Photo 01 - Rock Figures

Source – Ivison Marques Barbosa

These figures are painted with natural pigments, usually red, yellow, and black, which were obtained from substances found in nature, such as hematite and clay. Considered important remains of the prehistoric history of the American continent. They are

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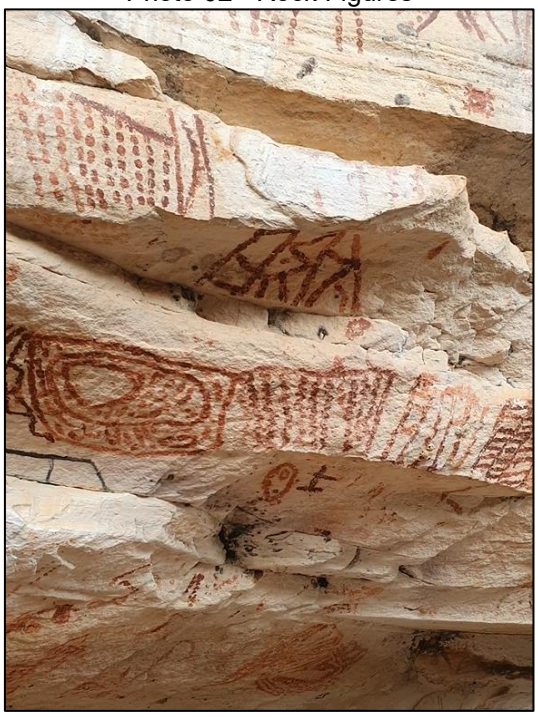
seen as a record of the life and culture of the first inhabitants of the region, who produced these figures more than six thousand years ago. These paintings represent a way to preserve and transmit information about the life and traditions of these ancient peoples.

These traditions are defined from the chronological period of the site; then technical characteristics are taken into account such as what type of pigment/paint is used; what tools (brush or fingers) are used; and what themes are represented (pure graphics, composite graphics, action graphics). Seven traditions occur in the Brazilian territory, which are: Geometric, Coastal, Plateau, São Francisco, Northeast, Agreste and Amazon.

Photo 02 - Rock Figures



Source – Ivison Marques Barbosa

The tradition of the northeast, so named by Niéde Guidon, is created from the graphics found in the Serra da Capivara National Park, in the state of Piauí, since throughout the new graphics seen in a nearby area, they shared similar representations. These representations dealt with actions of the current society, such as fights, hunts, dancing and sex. It has light strokes, painted through fine brushes and left, with pigments of red, white, black, gray, yellow, blue and green colors.

The characteristics of the graphics, the figures that represent humans, have characteristic ornaments, such as headdresses, clothing and weapons, while the animals

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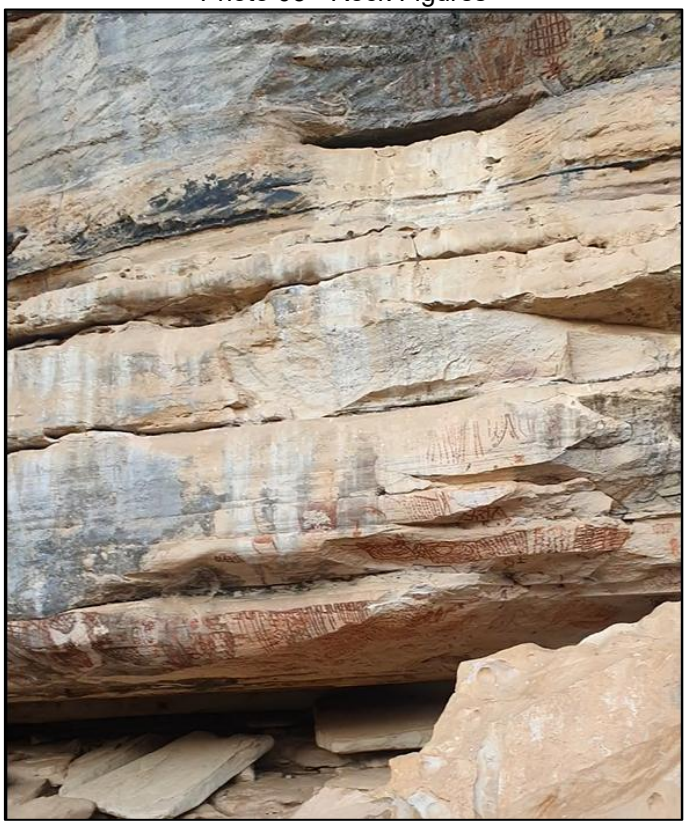
represented have larger sizes than human beings, bringing a reality of proportion to what exists in the environment in which the peoples live.

In addition to its historical and cultural importance, the cave paintings of the Alcobaça Valley also represent a challenge for researchers who study this region. The preservation of these archaeological sites is a constant challenge, as they are exposed to several factors that can damage them, such as the action of wind, sun and rain, in addition to the action of man, who can often act irresponsibly and damage the paintings.

Among the initiatives to preserve the cave paintings of the Alcobaça Valley, the research and dissemination of these archaeological sites stand out. Through research projects, excavations, and analyses, experts seek to better understand the history and culture of the region's ancient inhabitants. The dissemination of these sites, through exhibitions, lectures and educational works, aims to make people aware of the importance of preserving cultural heritage.

Photo 03 - Rock Figures



Source – Ivison Marques Barbosa

Archaeological Site of Alcobaça, it is a region of great historical and cultural importance, whose cave paintings represent a living memory of the people who inhabited

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this region thousands of years ago. The preservation of these paintings is fundamental for understanding the history of the region and the American continent as a whole, and it is necessary to continue research and dissemination projects to ensure that this heritage is preserved for future generations.

Having a geomorphological configuration that extends through its western portion, Eutrophic Litholic Soils and Solodic Planosols, also containing Regosols, in smaller quantities, containing in its eastern part, soils such as Dystrophic Quartz Sands; its climate being semi-arid; containing in its landscape, results of fluvial erosion, more intense in the past, being currently redesigned by both pluvial and wind erosion. The dominant vegetation is the arboreal caatinga, with examples of species such as coroa-de-frade, xique-xique, rabo-de-fox and mandacaru.

Observing these configurations and their actors allows the student to be an individual who will take knowledge to broader places, comparing the theoretical content with the content experienced. When the visualization and understanding of what is seen and experienced in the geographical space takes place, the possibilities of learning take on greater strength, leading to a different view of what happens routinely in the lives of individuals.

Photo 04- Stone used for the painting of cave figures.

Source – Ivison Marques Barbosa

Since its first steps as a science, Geography has been present as a science of observation and description, with its evolution, it is no longer just a science of description and observation and now has this information to use as a point of reflection and analysis of data, linked to the current reality.

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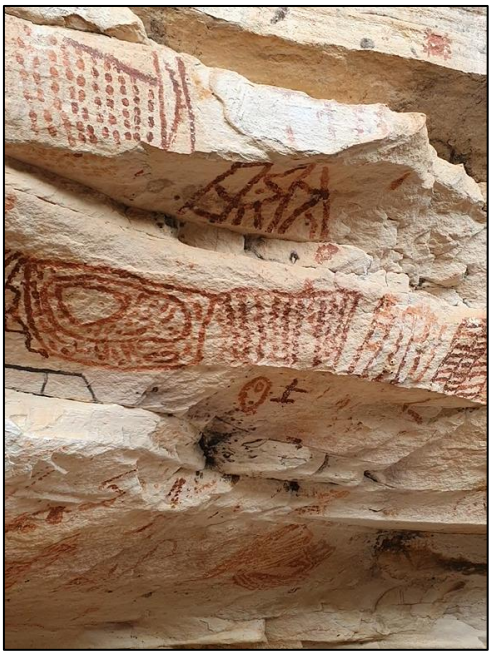
In two resulting visions, field classes bring: to teachers, a break in the learning experience environment, being involved in a new scenario beyond the classroom, bringing a dynamism to knowledge and students, a greater breadth in the understanding of space and a more intense means of knowledge.

From the perspective of active methodologies, the present research seeks to insert students in the historic site of Alcobaça without the need to leave the classroom in the classroom. Through VBL (Video Based Learning) building a virtual field class, taking into account that this practice was designed for municipal schools that do not have the resources to build a regular field class.

Photo 05 – Rock Figures



Source – Ivison Marques Barbosa

As a consequence of what has been shown so far, the objective of this work is to show how the active VBL methodology together with field classes, tend to be tools for the construction of knowledge, which involves several fundamental aspects for Geography, such as: relief, climate, fauna, flora, cave paintings and societies.

Thus promoting a methodological construction and a didactic intervention using virtual field class for an immersion of students in the contents covered, within the aspect of living in the Catimbau Valley, specifically in the Archaeological Site of Alcobaça.

RESULTS

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METHODOLOGICAL APPROACH AND THE RESULTS OF ITS APPLICATION: BUILDING A VBL (VIDEO BASED LEARNING) ON THE TRAILS OF SÍTIO ALCOBAÇA FOR ELEMENTARY SCHOOL.

Over time, official documents have been discussing the model of the curricular guidelines of Brazilian states and municipalities, the need to think about an organization of teaching that encourages students to learn more; Some of these modalities are part of what we call "active methodologies".

Active methodologies are being widely disseminated and have been very effective, as they are strategies that minimize or solve some of the problems found in the school environment. Among its main functions are to boost student involvement through playful activities, such as the use of games, and to start from situations experienced by them to deal with topics such as the city or the environment.

> The school, in the author's conception, would have a social function: to teach the individual not things, but the meanings of things, signs and their language (Dewey, 1959). If the school did not link the practice of children to what they learn, it would be isolated from society. The school would be the place where the child should acquire different experiences related to moral behavior and social well-being. Proceeding in this way, the separation between school and society would be somewhat mitigated. (Moraes & Castellar, 2018, p. 424)

These methodologies are pointed out as a path that can be followed by the teacher to obtain more satisfactory results in the teaching and learning process. Therefore, the focus of this didactic approach is to contribute to the recent discussions on teaching and learning processes based on active methodologies.

Education is always in constant evolution, with this, there is the emergence of new teaching methods that are created according to the needs of the globalized world and technology. To this end, it is important to combine the pedagogical perspective, which guides the educational model, with innovative educational practices.

> To meet contemporary demands, Science Education needs to offer new approaches in the classroom. These approaches need to encourage students to acquire a new posture to face the challenges of everyday life. Reading, writing, questioning and discussion are relevant aspects not only for academic life, but also for social life, which can be worked on in active learning methodologies. (BONWELL and EISON, 1991)

Today, learning focuses on the formation of an active, critical, reflective and transforming subject, a subject that assumes the main role in the construction of their

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knowledge. Thus, the role of the teacher is that of facilitator/mediator of the teaching/learning process.

> In this case, the teacher acts as a facilitator or advisor for the student to do research, reflect and decide for himself, which stimulates self-learning and facilitates continuing education because it arouses the learner's curiosity. Active teaching tools can be used in any discipline and with students of all ages, from basic to higher education (OLIVEIRA, 2013)

This approach can be built through the VBL model after the reproduction of the virtual field class, the class is aimed at the exchange of experiences and previous knowledge on the subject, at which time the teacher can explore the student's knowledge of the world on the subject, for the sharing of knowledge, starting from discussions on the topic of the class.

Due to its purpose, it is linked to the sum of two means of learning, both the videos and the field class, the record, in a way, is what guides the activity entitled "Geography written in relief", the focus was given to the cave paintings present in the Archaeological Site of Alcobaça.

Carried out after observing the videos dealing with the recorded images, referring to the representations on the rocks, it was hoped that the students would be given rocks similar to those that the people used to create the paintings, to simulate how they could leave their engravings and messages, being instead of the rocks, sheets of paper.

The objective is to use the videos created on the trails of the Alcobaça Archaeological Site during the didactic excursion carried out by the University of Pernambuco Mata Norte Campus, the idea arose as an attempt to insert students who do not have the financial conditions to make an excursion of this size, taking into account the distance and their stay, Therefore, all the trails made by us and their main points were recorded, always focusing on the cave figures, seeking to make them understand about the cave paintings, as well as understand the social dynamics, assimilating the cave painting as a means of communication.

After the reproduction of the virtual field class called "Geography written in relief", a simple final field class activity was prepared to be applied in the classroom with the students, the realization of it, closes a whole learning cycle, highlighting the skills of the students inserted in the context of the virtual field class, for the creation of images linked beyond what is seen in the field, also portray what he sees in his daily life.

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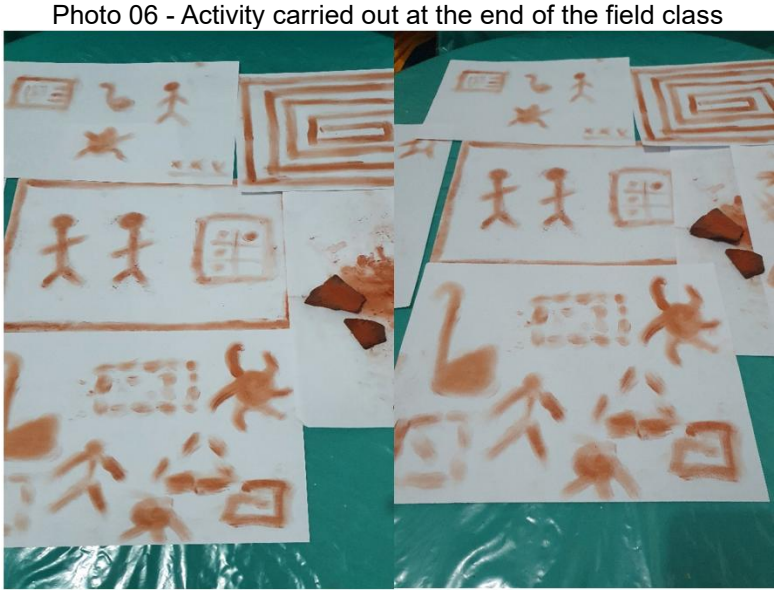
Photo 06 - Activity carried out at the end of the field class



Source – Ivison Marques Barbosa

This experiential learning cycle is based on experiences or experiences, in which students are encouraged to reflect on their actions and social experiences, through a learning method, which was used the VBL. The activity in which the students' experience regarding the virtual field class is addressed, forming a challenge to be fulfilled, generating the involvement of students about the analysis of cave figures, where a diagnostic process is formed, which generates feedback on what should be done in the next phase of conceptualization, producing a cognitive map, Using the information generated in the feedback process, the result of this activity is used in the reformulation of this experience.

The connection enables the correlation with the real, and thus reaching the main objective, which would be to insert students remotely in the trails of the Alcobaça Archaeological Site through the virtual field class called "Geography written in relief".

CONCLUSION

This project, as presented so far, demonstrated how the insertion of an active methodology, using the pedagogical resource VBL (Video Based Learning) for the creation of knowledge from the student's protagonism, with the construction of videos within the field classes. If there is an interaction between teaching and the experience of what is taught, the break in the modus operandi of teaching motivates this project.

It is expected that the project will go hand in hand with the interest in the use of video in different situations and the creation of learning. Linked to a new functionality to

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technological devices, used in education as a facilitating vector for access to information, the application of the activity can be used in various contexts, as long as there is a connection between the theoretical (knowledge) and the practical (experience of the field class), as well as the use of technologies together with Geography.

In addition to its historical and cultural importance, the cave paintings of the Alcobaça Valley also represent a challenge for researchers who study this region. The preservation of these archaeological sites is a constant challenge, as they are exposed to several factors that can damage them, such as the action of wind, sun and rain, in addition to the action of man, who can often act irresponsibly and damage the paintings. Among the initiatives to preserve the cave paintings of the Alcobaça Valley, the research and dissemination of these archaeological sites stand out. Through research projects, excavations, and analyses, experts seek to better understand the history and culture of the region's ancient inhabitants. The dissemination of these sites, through exhibitions, lectures and educational works, aims to make people aware of the importance of preserving cultural heritage.

The Alcobaça Valley is a region of great historical and cultural importance, whose cave paintings represent a living memory of the peoples who inhabited this region thousands of years ago. The preservation of these paintings is fundamental for understanding the history of the region and the American continent as a whole, and it is necessary to continue research and dissemination projects to ensure that this heritage is preserved for future generations.

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