GIBRINCAR

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Abstract

The Gibrincar Project presents a new purpose on the teaching and learning process, linking technology with the educational methodologies in a graphic environment estimulating the learning. In order to get this, we explore the reading process searching for the written comprehension. With this target achieved, we begin the building of a comics which tells us the read and interpreted text after that, we have the story printed and finally the students can be able to explore the entertainment games linked to the context. The relevant point of the project is the interaction man and machine, reached mainly with the comics creation. Where it is available a set of images for the picture edition, reaching the acquired knowledge in the previous read text. All this scenario was developed using the Visual Basic program language interlinked with the Flash platform inside a managing scope to the object. Visual Basic allowed the creation of routines to most different resources and the Flash contributed to a graphic presentation in order to execute determined logical administrations. The first purpose of Gibrincar is supported on characters of Brazil history, however it can be portable to any other subject at which fits this purpose. Through this dynamic, we have condition to visualize a new scenario in the learning-teaching process, providing the sedimentation of the student learning in a computerization environment so that the students are attracted to this kind of technology absolutely indischargeable nowadays.

Key-word
Education, Software-educational, Methodology, interdisciplinarity, written comprehension

1. Introduction

The learning process bases on diverse types of knowledge: a man and society, a world vision. As the subject can take a huge diversity, promotes difficulty in the agreement and internalization of the knowledge, with this intention is that they develop educational softwares.
The use of the computer in education only makes any meaning in the measure where the professors conceiving it as a auxiliar tool to its didactic-pedagogical activities as instrument of planning and accomplishment of projects, as practical new element that motivates and at the same time it defies the sprouting of pedagogical, becoming the teach-learning process an activity innovative, dynamic and interactive.
So, computer science, when adopted in the schools, must be combined to the resume, not as a disciplines, but as a tool, also, to multidiscipline, consisting in some thing more than the professor can count to carry through its work well; developing activities that take to a reflection on which the best form to use its resources, analyzing the characteristics of each discipline; carrying through the essential interaction between the diverses disciplines and the resources of computer science.
When used in this way in the school, or either, ***the computer science in a service of an educational project*****,** propitiates conditions to the pupils to work from subjects, projects or activities, appeared in the context of the classroom. In result of these situations, the pupils can count on the “computers magic”.

2. Objectives

The current educators pass for an undisputed challenge: the use of computers in the school, with the intention to promote the education computational to measure improvements in the social relations and of learning in the schools. This new dynamics searchs a more cooperative environment in the to teach/to learn process, preparing them for perpetual learnings, as exploring and integrators of the learning and the experience.
A factor key is to take the schools to answer to these changes for production of adjusted material resources in the educational process. However, so that these materials are effective, the educational concepts must be expressed correctly that will go to facilitate the process of work, education, communication and learning. With the objective of become more attractive the educational systems, was transferred to use it the resources multimedia in the production of educative softwares.
An educational software is that one that:

- It considers and/or it allows that the learning complements intervenes with the product and the answers, allowing multiple ways of research and solutions of the problems. Thus it will be able to take the pupil to: creativity, easiness of use, interaction, authorship, pleasure and update of data;
- It makes possible the reasoning and the reflection on the action, for the production of new and better actions. In this way it could be: innovator, challenger, critic, provocative, allowing the error;

- Professor and pupil can register and to reflect on the process for which they had constructed its knowledge;
- It is instigate, provoking in the pupil the search of new information, that allow it to raise new hypotheses;
- It makes possible the description of the procedures, of clear form and objective so that the user can construct its knowledge;
- It has the worked error and that from one feedback the pupil can learn for way of it, working it in the direction of the construction it knowledge;
- He gives conditions so that the student continues in the construction of its knowledge in a cooperative form.

The center of the attention is the pupils in its interaction with the way. Thus, educational software search to create a species of computer science micro-worlds that they make possible to the pupils to manipulate ideas, concepts and models in the understanding of the reality. The pupils advance in the learning constructing new ideas.

3. Development

The project is initiated with an opening screen (Figure - 01).

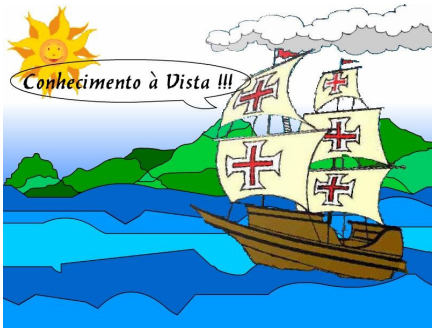


Figure – 01

In this screen a animation is presented to the user, folloied of a thematic music. Such consistency was created using the controlled platform Flash for timer of Visual platform beginner's all-purpose symbolic instruction code.
The animation has as intention to attract the interest of the user to software, being made a reference to a trip of Cabral where if considers the search of knowledge to the famous phrase: “Land to the sight".
One of the informatic micron-worlds of the Gibrincar project, contemplates the personage Pedro Álvares Cabral, who will be the focus of our presentation and that for analogy the others will have the same to uncurl.
After that it comes open a "Menu" screen contend the available personages to the user. The menu is dynamic, suggesting a wheel giant where, as the position of mouse, has a variation of speed in the movement of the wheel.

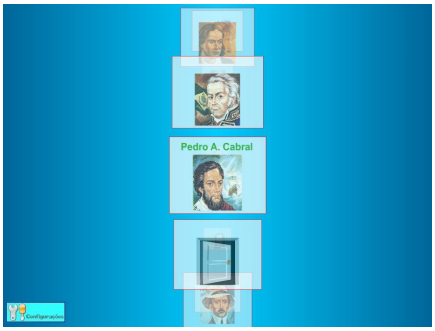


Figure - 02

Each personage possess its respective photo and, when the cursor of mouse locates on the photo, the name of the personage is shown (Figure - 02). Thus that the personage is chosen, this receives a prominence in red and after that it is initiated screen of reading of its biography.
By this moment, an integration happens between the platforms in a way where the programming in Visual Basic executes procedures in function of data sent for the Flash. With this created strategy, the apprentice in

the search of the exploration of the knowledge of pleasant form defies itself.

Once added the new personage, the auto-data menu to the new amount of options becoming it malleable and easy adjustment inside of the precisions of the user.

The reading screen (Figure - 03) is showned with the full name of the personage, its photo (similar to the one of the menu) and the text considered to the interpretation. This text is a suitable biography, validated for a history professional, in order to facilitate to the understanding and interpretation of the text for the pupil who, with base in this acquired knowledge, will have conditions to later carry through the confection of the comics.

Figure – 03

A musical option is available, being able or not to be activated, of form that the pupil better assimilates the information contained in the biography, therefore studies in the psychological area proves that, when studying hearing one of the symphonies of Mozart in a pleasant volume, one better assimilation of the content in study is caused.

About the navigation, the pupil will have the possibility to advance for the assembly screen or to retrocede to the menu being able to select another personage. Of this form it was created possibility of choice of clear form and objective so that the user can construct its knowledge.

The assembly of the comics is proposal of interactive form. In the assembly screen (Figure - 04) pertinent images to the picture are shown that will have to be confectioned. Amongst these images, the "correct ones" exist and "made a mistake", as the picture in question. In accordance with the knowledge acquired in the reading of the cited text previously, the pupil is defied to carry through the correct assembly of the comics being followed the logic of continuity of the history with the aid of small tips available in the lower part of the screen.

Figure – 04

This strategy makes possible the reasoning and the reflection on the action, for the production of new and better actions. In this way it could be innovative, challenging, critical, provocative and allowing the error. As the pupil drags the image for the picture in question, this will have to be in accordance with the history of the personage and continuity of the facts so that it remains in the picture. In case that this image is not inside of the target of the history, it returns for its original position of form to consider the idea of image not good for such situation.

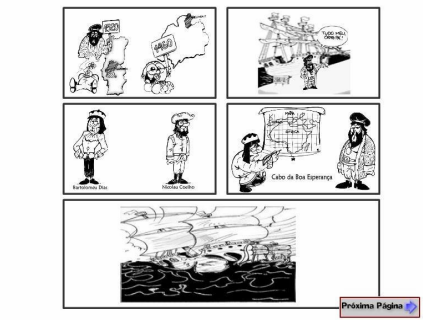


Figure – 05

Through this dynamics, one will be treating the possibility to error and that, from one feedback, the pupil can learn for way of it, working it in the direction of the construction it knowledge.
By this way, the page will be mounted picture the picture and, when finished, it is shown in full screen per some seconds for appreciation. At this moment its capture for future impression will be made (Figure - 05). Such capture is carried through of dynamic form in accordance with the page mounted for the pupil.
It fits to notice that the figures are in white black color on purpose and due to possibility of, later, the comics to be printed and to allow that the pupil can color its Gibrincar.
When the pupil finishes the confection of the comics, is shown a screen of greeting (Figure - 06) with the options to print the comics that was mounted, to initiate some of the available games of entertainment or to come back to the screen of menu with the possibility to initiate another personage.

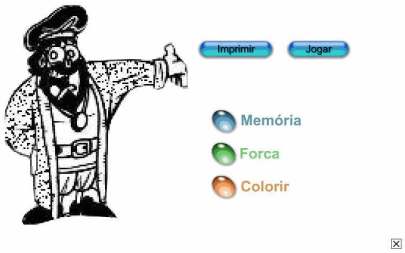


Figure – 06

In this interaction, the pupil to the search of new information provokes itself that allow it to raise new trajectories.
As cited above, the project possess three games that had been created "to reward" the pupil who finished the comics, being also able to be seen as a pastime and a tool for consolidation of the assimilated knowledge a time that the games are related with the personage in study.
In the impression screen (Figure - 07), the composed pages of the comics for the pupil (that they had been captured in real time and at the moment already they are salutes in a temporary folder of the program) are loaded in its had order, being added to a layer and a against-layer in way that if forms the comics as a whole.

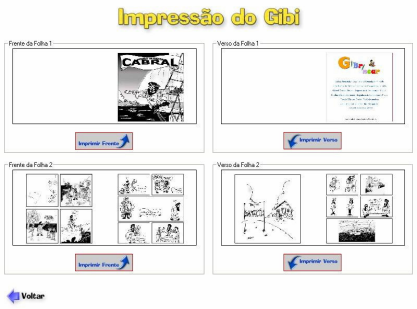


Figure – 07

All this process is guided by software, therefore, it comics to receive its adequate physical form, is necessary the front and verse impression that is guided as each page is printed. In this screen the pupil still has the option to come back to the greeting screen where will be able to entertain itself with the games or to come back to the menu of personages.
When concluding this stage, allowed that the learning intervenes with the product with the search of answers for its intention, allowing multiple ways until reaching the final solution. Thus, the pupil can itself be led to: creativity, easiness of use, interaction, authorship, pleasure and update of data.
About the available games, them they are: "Memory", "Gallows" and "To color".

Figure - 08

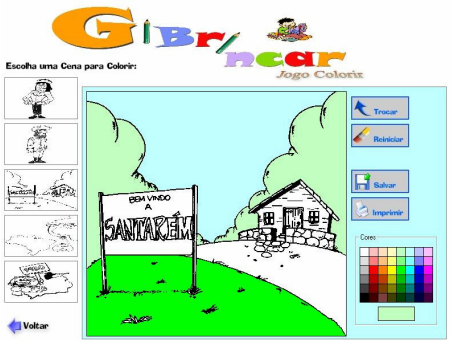
The memory game (Figure - 08) possess 10 pairs of letters with images of the mounted history gifts in the referring comics to the personage in study.
Beyond the playful aspect and entertainment, it will induce the pupil to remember of the seen images already in the confection of the comics.

Through this game destined to the pupils of the initial series of basic education, condition is had to strengthen the identification of the personages exploring the visual resource and searching assistance in the photographic memory, also exercising one of the questions of to teach/to learn process.

In the game of the gallows (Figure - 09), the didactic matrix prevails, therefore the bank of questions is made on the basis of the biography deals of the personage in study. Each personage possess its data base endowed initially with 20 questions that could be modified, inserted or extinguished for a responsible professor.

Figure – 09

About the playful part, to each error of the pupil images in sequence of the personage studied in evaluative pictures are shown converging to the closing of the task, making a reference to the conventional game. In case that the user answers the question of satisfactory form, its success will be shown an image commemorating.



The intention of this game would be to reach basic education in the intermediate series where the professor and pupils can register and to reflect on the process for which they had constructed its knowledge.
In the game "To color" (Figure 10), a roll of referring scenes to the personage in study is available to the pupil.

Figure - 10

Then, the pupil will be able to choose a scene to color virtually and, after made this, will have the options to save its drawing in record or print it.
Exploring this game, the pupil of basic education has the possibility of to report to a scene amongst the proposals where will have the signaling of its preference to the studied personage.

By this form, the student has condition to interact with its pairs in the opinion of as to color and until making suggestions in the postcards of the colleagues, thus it will be working the social relation in the classroom with a delineated educational focus.

Figure – 11

The project still presents a Configuration task. This configuration module (Figure 11) allows the user to manage the audio controls

enable. When audio is active, five tracks are available for choose, and will be performed as playback during the biography's reading time.

On the hangman game, the user will be able to operate a twenty questions/answers data bank (Figure 12), including adding, change, and delete questions.

"Add" includes a new question/answer, increasing the database.

"Change" modificate a question or an answer that already exists on the database.

"Delete" remove a question/answer from the database.

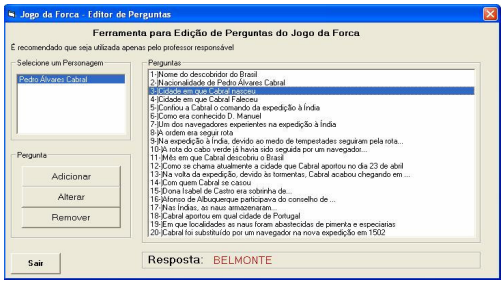


Figure 12

The exploration of the Gibrincar project contemplated the easiness of the dimensions ethical, pedagogical and of universality of the process of learning in its more diverse phases, it offers conditions so that the student continues in the construction of its knowledge of cooperative form and has coherence with begins it of collective construction for better quality of life.

4. Results

The Gibrincar project if characterizes for being a software that presents defined activities to be offered to the citizen that interacts with the program.

Made use in friendly and playful environments, much colored and with multimedia resources, the project allows the creation of a history supported in the interpretation of the text of a personage, searching to take care of the basic necessities of the student of basic education.

Inside of this panoramic view, it was analyzed position of some professors, who are the possible filters to reach one definitive result of the future use of this project.

Softwares truly educative would have to be constructed under arrives in port them of a theory on the way with that the citizens learn. Some theories, established exist in studies on the development, about how is the learning, as for example theories of Jean Piaget, Vygostky, Wallon and others, which would have to supply the bases the educative conception of softwares. The cognitive paradigm provides to the students a more active paper and with less external control.

Taking in consideration the thematic described, the Gibrincar project was evaluated by some professors of history of private schools and was signaled that it presents definitive questions that take care of the curricular necessity and presents technique-aesthetic friendly.

Amongst some topics we can detach:

Amenity to the use:

- Easiness of reading of the screen;
- Clarity of the commands;
- Adequacy of the vocabulary;
- Supply of feedback;
- Existence of treatment of error;
- Control of the sequence of the program;
- Diagramming of the screens;

- Unknown illustration use;
- Use of color;
- Time of exposition of screens;
- Use of appropriate sonorous resources;

Validate:
- Adequacy of the program to the level of the user;
- Forecast of updates;
- Absence of errors of content;
- Presentation of you prop up the pupils;

Trustworthiness:
- Independence of the languages;
- Independence of the hardware;
- Possibility of correction of content;
- Use of the time of the equipment;
- Integration of the program with other resources;
- Absence of errors in the processing of the program;
- Time of reply.

Robustness:
- Adequacy of the program to the curricular necessities;
- Possibility of inclusion of new elements;
- Existence of ramifications for alternative approaches.

We can perceive, through conclusion heading, that the professors had privileged important situations for its work, that is, the criteria that had been privileged say practical respect to the pedagogical one of the daily one. In other words, the professors had evidenced supremacy of the pedagogical structure and the construction of knowledge in the chosen teams.
The next results to be reached would be together to the learning, searching the profile of interest and satisfaction for the use of the project in the contribution of the search for the knowledge.

5. Conclusions

The technological evolution is present in the most diverse forms, such as: refrigerator who speak car that parks alone, etc. Proving that the machines are more intelligent, the use of the technological resources can be consecrated, characterizing a way without return.
The schools have equipment, but we still walk in the way to use them. The great revolution that the computer promotes is to allow an education in a way that it has much available information and at the same time. As the years go by it is foresees that more education will not be scrumbled to the didactic book; the books better and will be adjusted to computer science, even though with suggestion of sites and activities.
The lessons, the paper, the research of field, the laboratories works and the consultations in the Web are complementary resources that must be used in integrated and intelligent way. Accurately the opposite of that if it makes in the conventional education that wastes the most precious of

all resources: the professor, making of it mere supplier of information, when he would have to be an organization of learning situations. The technological resources must be used as an efficient tool in the construction of knowledge, being based on something that prioritizes the action of the citizen, as the history of Jean Piaget.

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