Teaching practice for pandemic times and the empowerment of audiovisual didactic sequences

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Abstract

Closed gates and students away from classrooms consist of scenarios with thou- sands of schools in different countries, showing all the zeal we must have with teaching, which was opened wide by the indirect relationship between Education and Coronavirus. It is a frightening and troubling panorama, not only in health but also in teaching impacts. The learning process can and should hap- pen outside the classroom, and the pandemic accelerated this understanding. Technology support is fundamental for this to happen, eliminating any physical or geographical barrier of communication and interaction. However, the technological tools go further. Educational technologies are the leading solution to our situation and have the most significant potential for teaching children and young people. It is an opportunity to reframe Education and think of more effective ways to develop new children and young people. However, there is no ready recipe. Several frameworks for creating can guide audiovisual didactic sequences are not entirely descriptive in practice, applicability, or evaluation. Therefore, this work has its starting point the instructional design to supply this development, with other frameworks within its phases, allowing a better understanding of the objectives and greater ease in developing the instructional material. The results show that students well accept this new proposal.

Keywords: didactic sequence; instructional design; system usability scale; storytelling

1. Introduction

The pandemic of the new coronavirus, COVID-19, closed many schools of regular and professional education throughout Brazil. This is one of the measures to contain the disease and reduce contagion. In this scenario, many school managers had to seek emergency exits to continue their activities. Mainly, remote teaching supports and the introduction of new methodologies, supported by digital technologies (Viner et al., 2020).

After all, from one hour to the next, face-to-face classes were replaced for remote learning[1], forcing teachers and students to learn new communication and information technologies (ICTs) quickly. In addition to infrastructure and connectivity issues, the implementation of new teaching modalities rapidly, due to the pandemic, highlighted the need to prepare teachers and school managers (Goldman et al., 2020). However, that doesn't happen as quickly as using technology. There is a tendency for teachers to reproduce the face-to-face model, using the same calendar and curriculum. And this is the main problem because the pedagogical posture in distance learning is different. In the classroom, feedback between student and teacher is direct and permanent. Just look around to see if there is student engagement, if the class understands what is being taught, etc. In distance learning, there is no such control. Hence the need to think about solutions and rethink practices (Baticulon et al., 2020).

In this scenario, several teachers are returning their interest in audiovisual material production, mainly due to its ease of consumption (Al Lily et al., 2020). Especially for children, videos are an excellent learning alternative, as students are more focused and can still learn while playing. Thus, proposals for audiovisual material are widely produced. However, there are still some challenges that these teachers must overcome with their audiovisual materials: the lack of clear understanding of the class, the lack of clarity and information overload, the lack of creativity, and the lack of time management. Thus, teachers are looking for some frameworks that can assist in audiovisual production, such as instructional design (Iivari et al., 2020).

However, it brings a problem: instructional design also does not address the challenges teachers must overcome. On the contrary, instructional design has historically presented the same challenges (Sweller et al., 2019). This means that only a more complete model that can, besides guiding audiovisual material development, can offer educational tools that really give meaning and organize the didactic sequences is necessary. Therefore, this work aims to empower the instructional design phases with the addition of other validated and well-known frameworks, focusing on the development of didactic sequences that provide meaningful learning.

2. Teaching practice in pandemic times

[1] In Brazil, distance learning and remote learning are different. Each has its legislation, and courses approved as in-person by the Ministry of Education cannot be offered in the distance learning "mode" (which have their legislation). For this reason, we call the current model of education as "remote."

Teachers' preparation (Imbernon, 2009), both initial and permanent, is directly influenced by changes in reality and makes the teacher face daily changing contexts, whether socio-cultural, economic, valuation, or technological. Faced with a universal culture and a constantly changing reality, teacher autonomy, and self-determination are based on the best choices from an epistemological and methodological perspective. The teacher's commitment and competence to be able to develop (trans)formative practices in these changing scenarios is the focus of discussion by several authors, such as Paulo Freire (Freire, 2008).

Educational institutions must be environments in which teachers can reflect on their actions, confront theoretical knowledge, and, starting from these dialogues with heuristic pretensions, be able to understand, explain and overcome the challenges that may arise in their school routine. This means that teachers must have an ecosystem in which reflection on and about professional action is translated into a pedagogical action (Tardif, 2014). However, one cannot idealize a context, the daily life "of" and "in" praxis will always present many dilemmas and counterpoints, so the best way is to guarantee this capacity for resilience and at the same time reading and transforming the context based on production and dissemination of knowledge. Considering the assertion that teaching knowledge is also built, it is educational institutions' role to encourage reflection and discussion of their own practice (Tardif, 2014).

It is essential to move beyond the horizon of diagnoses, recognize the difficulties inherent in the teacher's formation process, and offer them the conditions to overcome these constraints. No undergraduate degree meets all the formation needs of teaching; it serves as an initiation that needs to be complemented throughout professional life, according to the demands and difficulties encountered in praxis. To be a teacher is to do it constantly. It is essential to move beyond the horizon of diagnoses, recognize the challenges inherent in the teacher's formation process, and offer them the conditions to overcome these constraints.

According to Paulo Freire (Freire, 2001), Education is permanent because, on the one hand, about the finitude of the human being, on the other, about the awareness he/she has of his/her finitude. Furthermore, since, throughout history, it incorporated into its nature, not only knowing that it lived but knowing that it understood and, thus, knowing that it could learn more. Education and ongoing formation are joined there.

The premise for this formative movement must be born from the Freire's inference that the teacher must feel inconclusive; with this and for this reason, he is on his way to an endless search for answers to the daily impositions of praxis. Teaching is a process of critical dialogical relationship with our human condition so that what we have is the only inconclusion. We are living in the construction processes. From these realities, it is possible to envision the spaces of teacher formation as a locus of listening, interaction and sharing, and, consequently, of learning capable of recognizing the contemporary daily education, which integrates different learning styles of the subjects in a constitutive and constructive, showing that the teacher's identity characterization is (re)transformed.

In the wake of the vision presented above, our formative gap is most straight-forward if in the human condition itself, considering that we cannot predict everything all the time. Especially in this pandemic moment in which we live. Suddenly imposed on all levels of education and educational institutions, the challenges generated by Education during the pandemic have brought factual repercussions and definitely change teaching and learning. Thus, teachers' and trainers' role is to find ways out for all students to have

access to quality education at all levels. This means much more than teaching content. It is a profound (re)thinking about our teaching forms and, mainly, ways of learning.

The education space should enable an environment in which teachers can reflect on their actions, confront theoretical knowledge, and, starting from these dialogues with heuristic pretensions, understand, explain and overcome the challenges that may arise in their school routine (Tardif, 2014). The teacher's commitment and competence to be able to develop (trans)formative practices in these changing scenarios is the focus of discussion by several authors (Freire, 2008).

In the current scenario, many school managers had to seek emergency ways to continue their activities. Mainly, with the help of remote teaching supports and the introduction of new methodologies supported by digital technologies. After all, from one hour to the next, face-to-face classes were substituted for the remote teaching modality, propelling teachers and students to rapid learning of new information and communication technologies (ICTs). However, teachers share several insecurities regarding more technical issues, such as giving the class online, recording videos, and preparing materials shared with students. In this sense, it was noticed that there is a deficit in teacher formation in ICTs and active methodologies, something that makes engagement difficult. Furthermore, this preparation takes time, does not happen overnight (Colao et al., 2020).

Additionally, education, technology, and autonomy must go together. The use of technology in education should have the character of technological praxis since all use of technology is initially imbued with ideology. It is necessary to identify the bases of technological practices searching for the real justifications for their use. From the axiological point of view, as well as epistemological, all use of technology is based on conceptions of the world and of the man imagined by a certain ideology, notably on issues of education. Technology cannot be used without fully understanding the real reason for its use since the possibility of political-ideological manipulation also permeates technological environments and environments. The full understanding of technology humanizes men and makes them able to transform the world, which is, in fact, praxis (Freire, 1996). Based on the above, we propose improvements in the instructional design. It covers all the pedagogical-methodological issues necessary to develop audiovisual material to meet the didactic sequences needed for remote education during the pandemic period.

3. Instructional Design

Instructional design (ID) (Sweller et al., 2019) is an area of activity linked to Education, more precisely, to teaching materials. It can be understood as a work methodology dedicated to analysis, design, development, implementation, and evaluation of distance courses.

The ID constitutes a set of activities involved in the formulation of educational action; that is, it is a diversity of practices that allow the construction of a qualified educational product. ID is responsible for the structure and organization of material production, for the content material adequacy of the content (accordance with the content) and their level of approach, for adapting to the student's profile and context, for verifying the methodological and pedagogical objectives proposed by the course, through the use of appropriate language and information, accessible to the purposes, to the subjects involved in learning and the proper appropriation of the media. The ID presents four basic assumptions:

1. To elaborate effective didactic processes and materials, that is, that fulfill their pedagogical objectives.
2. Materials and methods must be efficient, using the shortest possible time.
3. It must be pleasant for apprentices.
4. They need to be viable in terms of cost-benefit

The advantages of ID include (i) establish the focus of the teaching-learning process on the student, (ii) encourage the development of alternative solutions to the usual practices in a given teaching area, and (iii) promote the convergence of objectives, activities, and evaluations.

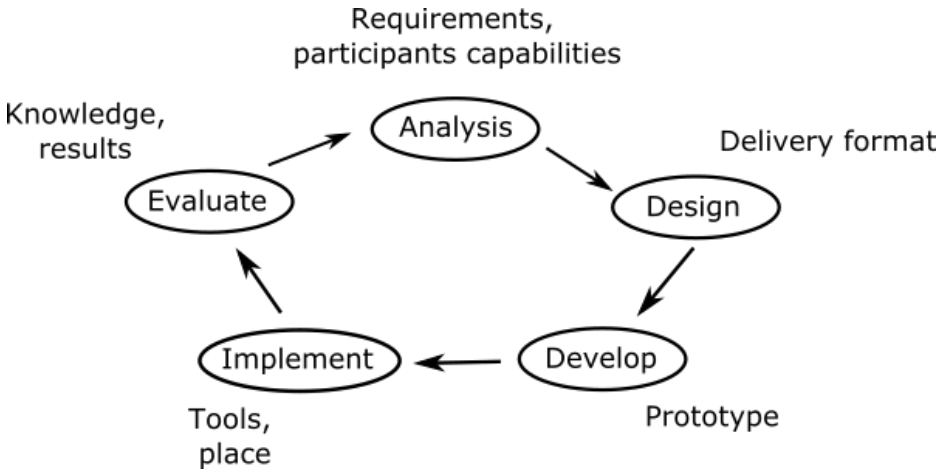

Figure 1: ADDIE model.

The ID can be divided into five phases: analysis, design, development, implementation, and evaluation. These phases constitute the so-called ADDIE model (Figure 1), a continuous and cyclical chain fed back at the end of the process. This model can be adopted at the macro level, in the elaboration of courses, and at the micro-level, to develop teaching materials.

3.1. Analysis

In this phase, the philosophies of education that guide the institution are defined, the course's objectives, the characterization of the target audience, the context's analysis, and the technological infrastructure, media, and communication support. It consists of understanding the educational problem and designing an approximate solution. Among others, the following aspects can be observed: (i) the nature of performance problems, (ii) the context in which the formation needs originate, (iii) the performances that must be the object of formation, (iv) the type of educational process to be adopted, (v) the definition of the target audience, and (vi) the schedule and costs of the formation project.

3.2. Design

It refers to creating the team responsible for the curriculum's content and definition, schedule, and pedagogical and technological strategies. In summary, this phase involves mapping and sequencing the contents, defining learning strategies and activities to achieve the objectives set, selecting the media and tools, and describing the materials that should be produced. The following aspects stand out in this stage: (i) the learning objectives, (ii) the content suited to the desired performance, (iii) the prerequisites for learning, and (iv) the learning sequence.

3.3. Development

Stage in which the instructional material is prepared, according to the avail- able media and the chosen platform. Technical and pedagogical support is also defined. It involves the production and adaptation of printed and digital re- sources and teaching materials. The following aspects are observed in this stage: (i) the characterization of educational activities, (ii) the selection of teaching re- sources, (iii) the review of existing material, (iv) the formatting of the formation program (course curriculum), (v) the selection of content, (vi) the definition of the teaching staff and their duties, and (vii) the formation validation test.

3.4. Implementation

In this stage, learning units are made available; students carry out the pro- posed activities interacting with the contents, tools, and educators. The application of the instructional design proposal will be evaluated in the subsequent evaluation phase. In addition to the formation itself, this stage involves the pedagogical proposal's physical and administrative structure.

3.5. Evaluation

It comprises the review and analysis of the pedagogical and technological strategies adopted. It covers considerations on the effectiveness of the proposed solution and the study of implemented strategies. In this phase, the evaluation of both the educational and learning results occurs, making it possible to adapt the instructional design. In summary, the evaluation allows the continuous improvement of the teaching process. The focus of pedagogical assessment is not on the format or technical qualities of its production. Still, on its pedagogical characteristics, that is, how much it can contribute to student learning. For this reason, the assessment should consider the student's performance concerning what was planned. The verification of effectiveness must allow the recognition of evidence of gains: it can be about the learning of concepts or the development of skills and competencies, which can be measured continuously or at the end of a period.

4. Challenges and Proposal

In the direct relation of the subject to the learning object - where the student acts on the learning objects and not the other way around, as occurred in the traditional teaching model - and since education occurs in several places and ways (globalized world), what are the challenges of instructional design today? We left a cast-off teaching model, where banking education is no longer applicable - the teacher is the depositor of meaningless content, and the student is only the depositary. Here are some challenges for the work of instructional design (Law and Wong, 1995):

1. Since we live in a globalized world and the amount of information is pervasive on any subject, how to organize the required content to meet the needs and objectives?
2. How to present and methodologically develop these contents to students?
3. Another challenge is the adequacy of time for each activity. What is the ideal time so that the activity does not become tiring and fails to meet your goals?

4. How to work theory vs. practice in courses/formation? How to transform the teaching-learning process into meaningful learning?
5. How to evaluate, to know if the students achieved the objectives? Which assessment strategies to choose?
6. What about students who have learning difficulties? How to intervene and interact with them?
7. How to adapt the instructional project to the reality of those who re- quested it (human, financial and technical resources, available), without the proposal losing its pedagogical consistency?

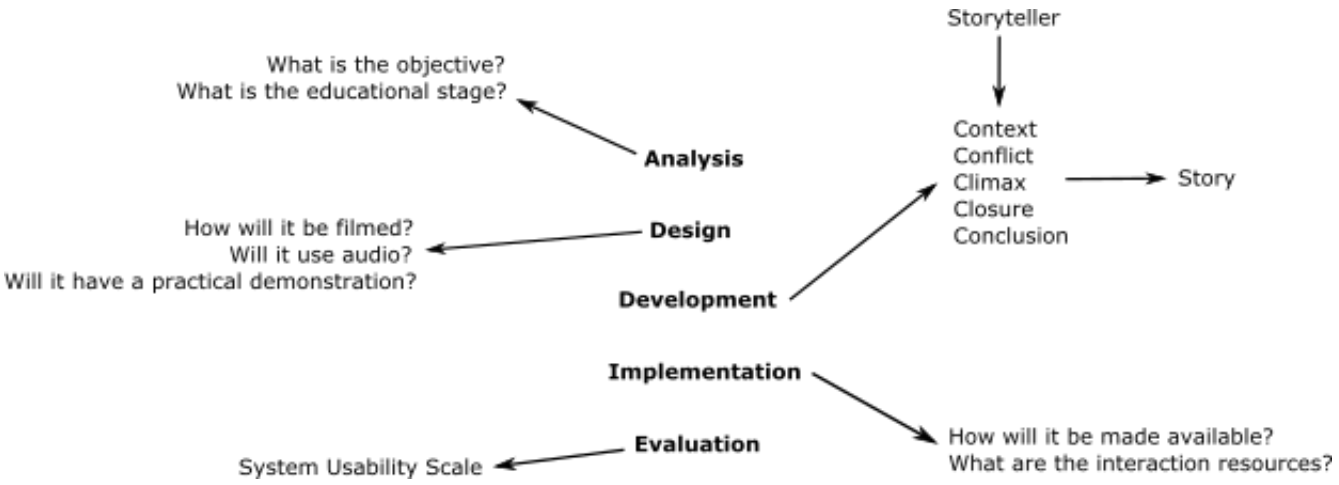

Figure 2: Empowered instructional design.

In order to answer these questions, this work presents two-stage empowerment of instructional design using two other well-known frameworks. This proposal can be seen in Figure 2. The development phase is guided by story- telling, and the system usability scale drives the evaluation phase. The analysis, design, and implementation phases are guided by fundamental questions that guide the didactic sequence's total development.

For example, in the analysis, questions are asked that determine the class's purpose and the level of education involved. In the design phase, the characteristics of the digital material production are defined in practical terms. And in the implementation, questions are defined about the availability and inter- active resources that the digital material will have. Below we present the two frameworks added to the instructional design.

Table 1: Storytelling Phases and Descriptions.

Phase	Description
Context	To contextualize means to approach the theme in order to identify in theory, or in what it is intended to teach, the situation or the context in which the student is inserted. A relationship must be established between what the student learns at school and his life (your daily life, health, relationship with society, and the environment). It indicates that learning will have meaning and be relevant to the student.

Conflict	Conflict must be able to discomfort, generate anguish instigate the student to interact with the context of the lesson through the teacher's problematization proposal. This should make the students pass from the quality of teaching objects to subjects of their learning.
Climax	The climax is the moment when the narrative is taken to the point of high tension or emotion, a kind of "literary crossroads" that requires a decision or an outcome.
Closure	Closing is the part of the narrative that shows the solution to the conflict. This consists of the end of the lesson, but not the end of the class.
Conclusion	The class's conclusion is the moment when the teacher establishes in the space of the discipline, where this lesson is logically established, what other previous knowledge that lesson is linked to, and prepares students for what comes next in terms of new lessons.

Source: Elaborated by the authors (2020)

4.1. Digital Storytelling

Storytelling (Zhang and Lugmayr, 2019) is an expression that means the act of telling stories. The practice of storytelling is one of the oldest activities of mankind. Stories are a method of sharing information, knowledge, and values. With the advent of the computer, the Internet, and new digital tools, narratives had to adapt to the technological environment in order to continue sharing this knowledge.

Storytelling is gaining ground in education, especially in distance learning modalities and blended learning (a method that alternates face-to-face moments and activities in virtual environments), given its teaching and potential learning (Wu and Chen, 2020). When telling a story, we aim to organize our experiences and a plot that explains and orders it. In that sense, storytelling can be conceived as a tool capable of managing experiences in the learning process.

Digital Storytelling (Wu and Chen, 2020) has been defined as associating the ancient art of storytelling with digital technology through a personal look, reconstructing experiences, and reflecting on the chosen theme. Digital Storytelling is a robust methodology, considering that stories have always been a dialectic/conversation between the narrator and the "listeners." These narratives' power consists of having a rhetorical structure, leading to individuals' active participation through questions that pose themselves; therefore, they are an excellent resource for education.

Stories serve to teach, learn, entertain, and inspire; they are not a casual diversion; they reflect a basic but efficient way of giving a logical sense to experiences and knowledge. Storytelling is a way to share real-life or imaginary experiences. Portable computers, smartphones, and tablets are used to access the internet and know at any time and space, enabling the new formation and creative practices. This expansion and development of mobile equipment have enabled remote access to information and communication virtually everywhere. Therefore, the increase in the creation of various mobile devices makes it possible for people to remain online most of the time, providing new ways of relating to knowledge. Therefore, digital educational resources using the Digital Storytelling methodology can be a valuable element in the learning trajectory, both for teachers and students.

This work proposes storytelling based on 5 phases (Table 1) that will compose the story and added to the instructional design development phase: con- text, conflict, climax, closure, and conclusion. These 5 phases are necessarily part of the same story and are told or guided by a storyteller.

4.1.1. System Usability Scale

The System Usability Scale (SUS) (Drew et al., 2018) was created by John Brooke in 1986 and allows you to evaluate a wide variety of products services. Thus, the methodology has become a reference for the industry, with several scientific and professional articles published. The method's popularity is due, among other reasons, to the fact that it presents an interesting balance between being scientifically refined and, at the same time, not having a too-long application neither for the user nor the researcher. The method is divided into three pillars:

- Effectiveness: Are users able to complete their goals?
- Efficiency: How much effort and resources are needed for users to complete their goals?
- Satisfaction: Was the user experience satisfactory?

SUS has ten questions, which the user can answer using a Likert scale, ranging from 1 to 5, with 1 being "Strongly disagree" and 5 "Strongly agree." For the analysis of the results, it is necessary to calculate an index. The fundamental questions of SUS can be modified according to their context. Below are these (already adapted) questions:

1. I think I would like to understand this lesson often.
2. I find the lesson unnecessarily complicated.
3. I found the lesson easy to understand.
4. I think I would need help from someone with technical knowledge to understand this lesson.
5. I think the various topics of the lesson are very well integrated.
6. I think the lesson is very inconsistent.
7. I imagine that people will understand this lesson quickly.
8. I found the lesson awkward to understand.
9. I felt confident in understanding the lesson.
10. I needed to learn several new things before I was able to understand the lesson.

It is possible to relate each question to Nielsen's heuristics for a structured assessment. This is the recommendation:

- Ease of learning: 3, 4, 7 and 10;
- Efficiency: 5, 6 and 8;
- Ease to memorize: 2;
- Minimization of errors: 6;
- Satisfaction: 1, 4, 9;

For odd answers (1, 3, 5, 7, 9), subtract 1 from the user's score assigned to the answer. Even answers (2, 4, 6, 8 10) decrease the user's score from 5(5-x). Then add up all the values for the ten questions and multiply by 2,5.

Table 2: SUS Scores and Descriptions.

Score	Description
<60	Unacceptable
60-69	Ok
70-79	Good
80-89	Excellent
>89	Best possible usability

Source: Elaborated by the authors (2020)

As a mature method, the research community was able to establish bench- marks. Thus, the System Usability Score average is 68 points. According to Table 2, SUS can be calculated according to the user's level of understanding. This same scale can then measure the student's understanding of the teacher's didactic sequence. Therefore, in this work, we propose that this framework be added as a tool used in the instructional design evaluation phase.

5. Methodology

Firstly, we will contextualize the environment in which the proposal was evaluated (Vocational and Technological Education – composed by a network of more than 640 campuses across the country), presenting its complexity. This work had as space of exploration, a Brazilian Federal Institute. With the expansion of the Federal Network of Professional, Scientific, and Technological Education[2] in 2008, the teaching practice has been developed in new and broad performance areas. According to their objectives, FIs propose to promote integration between different levels and educational modalities through vertical education. In this sense, there exists e the perception that within this restructured, bold, and contemporary institutional model, in addition to the continuous and systematic (re)construction of institutional processes, teaching is also (re)constituted within a complex and diversified scenario.

Following the vision presented in Section 2, in the human condition itself, the most evident in our formative gap, considering that we cannot predict every- thing all the time. The Federal Network also has the disadvantage of education in its initial preparation process to work with Professional and Technological Education. We are tutored within a disciplinary, content-oriented logic. When challenged by the Integrated Curriculum, omnilateral instruction, legal and conceptual prerogatives of Professional and Technological Education, the need for ongoing education is even greater.

This need is accentuated by the specific nature of Vocational and Techno- logical Education, which has particular requirements, such as a minimally inter and transdisciplinary view, ethical-political awareness

[2] BRAZIL. Law no. 11,892, of December 29, 2008. Establishes the Federal Network for Professional, Scientific, and Technological Education, creates the Federal Institutes of Education, Science, and Technology, and takes other measures. Federal Official Gazette, Section 1, p. 1, 12/30/2008.

of the act of teaching, and understanding that we are education workers who form workers. This reaffirms the idea that Education Institutions should provide students with an omnilateral formation, transforming them into a critical social subject, (re)learn their place in society, and reflexive to analyze their paths, including the formative ways. However, in order to develop in the students this endogenous movement of (trans) formation, given the prerogatives of Professional and Technological Education, the teacher needs to have incorporated in his theoretical-practical trajectory what this means.

FIs have a substantial differential that consists of offering the integrated technical high school curriculum (Costa and Coutinho, 2018). The Integrated Curriculum is part of the conception of a learning organization that aims to provide an education that includes all forms of knowledge produced by human activity. It is a progressive vision of education because it does not separate the knowledge accumulated by humanity in the way of scientific understanding from that acquired by students in their daily cultural and material relations. For this reason, it allows an approach to reality as a whole, allowing a favorable scenario so that everyone can expand their reading about the world and reflect on it to transform it into what they deem necessary. Integrated education aims to provide young people who live from work with a new synthesis between the general and the particular, between the logical and the historical, between theory and practice, between knowledge, work, and culture.

It was within this complex educational scenario that we established our research. Based on the above, this work's evaluation was carried out in a class belonging to the technical high school in informatics at the Federal Institute Farroupilha[3] (IFFar) - Brazil. During the evaluations, 6 professors from different disciplines were separated into two groups (3 professors each): the control group and the application group. The control group was the one that did not have access to the empowered instructional design proposed in this work, and the applied group was the one that developed all its activities based on this proposal. The test class consists of 30 first-year high school students who take the technical course in informatics at IFFar.

The experiments took place during the first academic semester of 2020. Each teacher created 10 audiovisual lessons that addressed the topics related to their subjects. As previously stated, the control group teachers developed the lessons without having any theory or didactic support tool as a basis. In contrast, the teachers in the application group were based on the proposal of this work.

In order to collect students' impressions about the produced audiovisual material, SUS was used. For the application group, SUS was already incorporated into the instructional design framework proposed. For the control group, SUS was applied independently. In this sense, the evaluation of this work is quantitative, based on a case study.

Quantitative research (Sheard, 2018) is a classification of the scientific method that uses different statistical techniques to quantify opinions and information for a given study. It is usually an assessment carried out to understand and emphasize logical reasoning and all the information that can be measured about human experiences. In this type of research, the means of data collection are structured through questionnaires, as well as individual interviews and other resources, with transparent and objective questions that are necessary. In this way, the quantitative assessment is rigorously applied so that

[3] https://www.iffarroupilha.edu.br

researchers can obtain the required reliability to the results, and the SUS proposal is adequate. SUS was applied to groups that served as a case study.

In addition, case studies are a broad research method on a specific subject, allowing for deepening the knowledge about it and, thus, offer subsidies for further investigations on the same theme. It is also considered empirical research that comprises a comprehensive method, with data collection and analysis.

6. Evaluation

This work proposal's significant difference consists of the storytelling script, which serves as a guide for teachers in producing content. In the evaluation, we seek to verify the students' perception regarding the items listed above: ease of learning, efficiency, ease to memorize, minimization of errors, and satisfaction. The Figure 3 shows the average based on the answers from SUS of the 10 lessons carried out by the control group (L1 - L10) and the 10 lessons carried out by the application group (L1-SUS - L10-SUS).

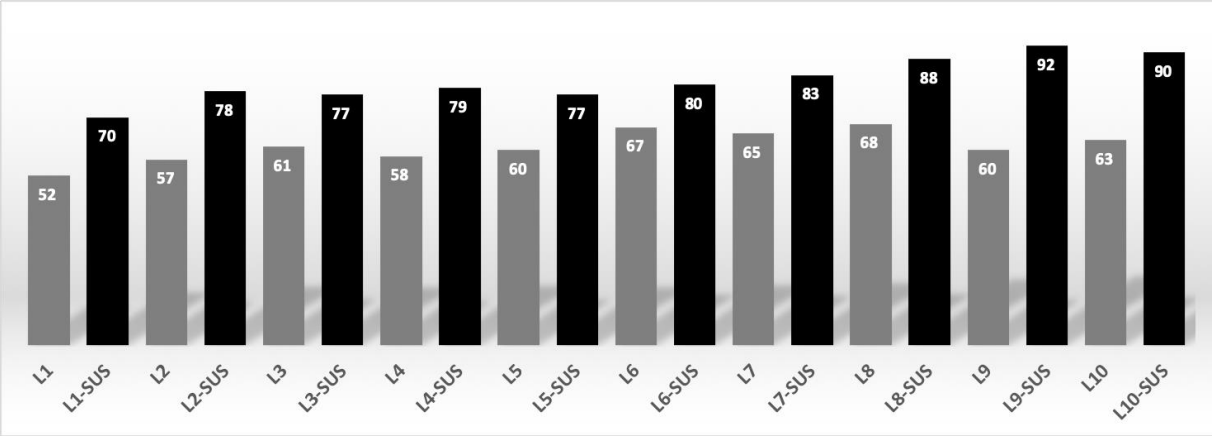

Figure 3: SUS results.

The results show, first of all, that although teachers were not prepared for this exceptional moment that forced them to go from face-to-face to remote teaching, there is a tendency to improve their digital educational products, over time. This is probably due to the fluency that teachers acquire over technologies due to practice and experience. However, even so, we can see that the results, at times, manage to reach an acceptable margin in terms of usability, but that does not go beyond this score and does not remain at that level.

Focusing specifically on the proposed new framework, we can see that this improvement over time is most likely due to the teacher's fluency over time and practice in creating their digital teaching materials. But more importantly, the students' understanding of the lessons shows a significant improvement since the beginning of the remote classes compared to the lessons of the control group.

The evaluations carried out during the first semester of 2020 showed promising results, when the results of applications group was compared with the control group, improving between 15% and 25% in the characteristics evaluated by the students: ease of leaning, efficiency, ease to memorize, minimization of

errors, and satisfaction. According to the Table 2, the improved framework remains between Good and Excellent, while practices without using the framework as a guide remain between Unacceptable and Ok. The Figure 4 shows each of the lessons presented by the application group, the average of the scores for each question answered by SUS. Based on these results, we can filter among those characteristics that SUS evaluates, which significantly impacted students.

It can be noted that individually, the characteristic scored most by students consists of Satisfaction (Questions 1, 4, and 9). This verb refers to fulfilling what is due or promised or meeting demands or expectations. Understanding how students perceive the institution and how they evaluate class is a method to gather different opinions and positive feedback and establish an effective dialogue with the student community and evolve from the criticisms and insights.

Second are the responses that imply greater ease of learning (3, 4, 7, and 10). As can be seen in this study, the simple fact of using audiovisual material is not a guarantee of more accessible learning. In particular, these results show that audiovisual material created based on an instructional framework offers students a better understanding of the lesson due to the requirements imposed by the framework itself, which makes the lesson, in a way, self-contained and thought-provoking.

Third, we have the ease of memorizing the instructional material. In this case, yes, the result is probably the effect of the lesson being in the audiovisual format. Still, one can also claim the same justification as above, which consists of a good organization of the material in order to treat the object studied in the lesson progressively logic.

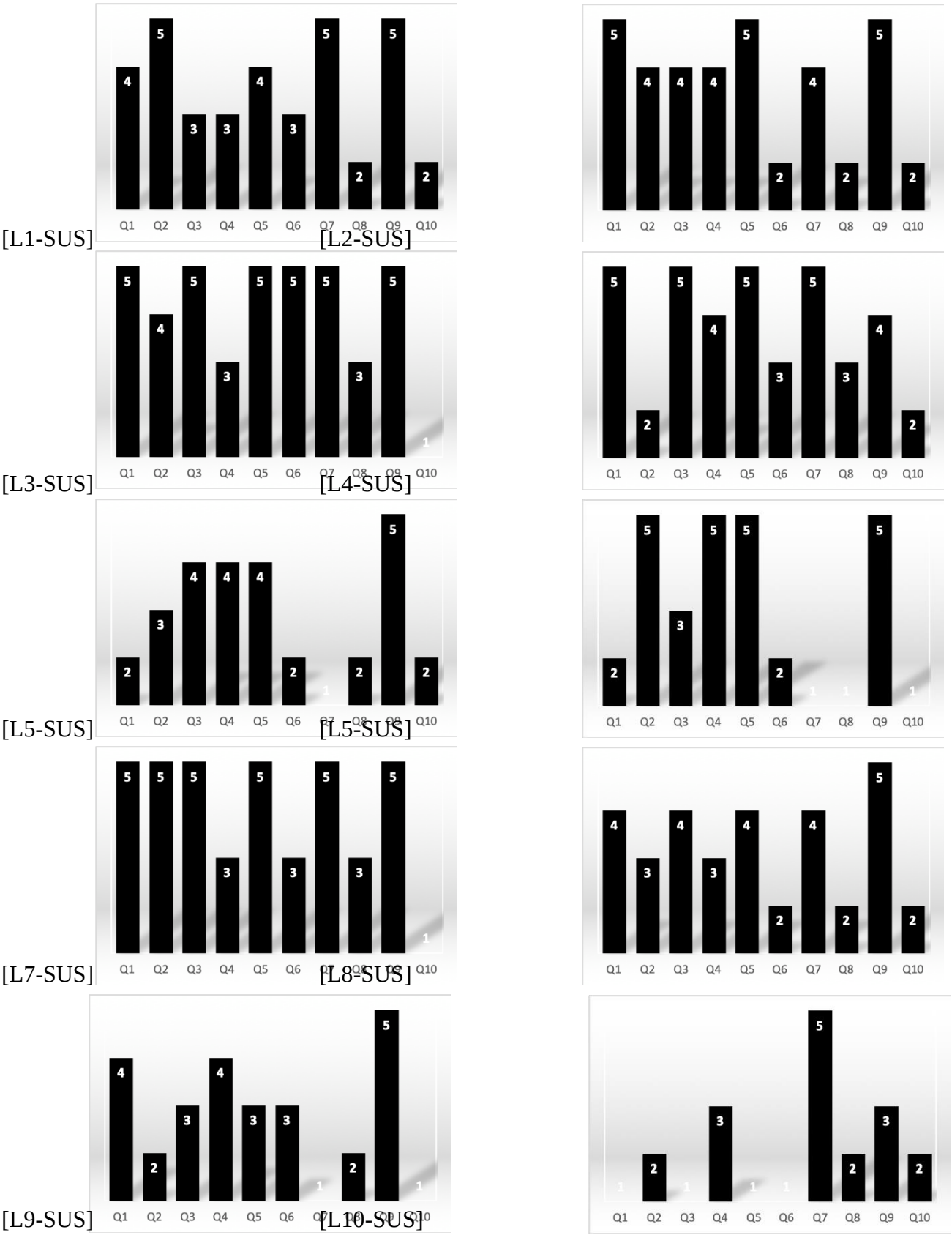

Figure 4: Average responses were made via SUS for each of the 10 lessons in the application group.

7. Conclusions

In the year 2020, the world is paralyzed by a pandemic. A highly contagious and reasonably lethal virus causes an imaginable transformation in society. The COVID-19 pandemic breaks out abruptly to remind us of human frailty. How- ever, even during this chaotic situation, education is necessary. Social isolation measures to reduce contamination are adopted around the world, with greater or lesser rigidity. Almost always, the first institutions reached by these measures are educational ones, environments that keep a large number of individuals con- fined together for long periods. Educational institutions, mostly in person, had to adapt to remote education quickly.

The change required rapid adaptation on the part of teachers, which raises debates and questions: are teachers prepared to teach beyond the traditional format? To make an excellent remote education curriculum, is it enough to transfer the content of the face-to-face model to the virtual environment? There was no educational or administrative contingency plan for such cases. Many of the educational entities were not technologically or theoretically prepared.

The greatest challenge of this "remote emergency teaching" lies with educators. How to adapt the contents, the classroom dynamics, the lectures, and the evaluations - without jeopardizing the learning process? How to keep students interested and engaged? The task is even more complicated for those who work in areas far from technology or teach children. Therefore, technical support and objective and defined rules for the remote class model format are expected.

Based on this scenario, this work proposes and evaluates a strengthening of the instructional design to create audiovisual material for remote classes. It allows the teacher to quickly and objectively set up and follow a script that goes from the definition of the theme and level of education, passing for the class's development, ending with assessing the student's understanding of that specific lesson.

SUS facilitates and speeds up the evaluation of audiovisual production created by the teacher. But the differential of the proposal is in the logical-didactic organization made possible by storytelling. This is the most significant differential of this proposal. It structures the audiovisual material and is a model that can hold attention, instigate students, as it provides a setting for a con- text, insertion of a context. This conflict bothers the student, climaxes with a discussion of the proposed conflict, and closing the lesson. The results were promising and validate the applicability of the method.

This proposal was applied in the context of a Brazilian Federal Institute. This imposes an extra complexity in the whole research process since the integration model proposed in the curricula of these institutions, which allows the contextualized approach of the general contents of primary education and the specifics of the desired professional formation, also imposes a more significant challenge to the teaching practice of these institutions. And although all the complexity, both proposals and the application environment in which the work was applied, the results were very promising and positive.

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