Design thinking in advertising: a teaching-learning proposal for the development of projects

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Abstract: This study shows a teaching-learning proposal for the development of advertising projects with design thinking (DT), considering undergraduate students in Advertising as target audience. The bibliographic review includes themes about: teaching of advertising projects, Design Thinking, and Constructive Alignment, followed by the details of the teaching-learning proposal and the elements that constitute it. The obtained results evidenced the effectiveness of the proposal and point out the immersion as the DT stage with more difficulty to perform by the students. The proposal can help teachers in the field to replicate the experience through the materials and resources described and, in addition, the construction course itself can be a guide to compose other proposals aimed at advertising teaching.

Keywords: constructive alignment; design thinking; advertising teaching; advertising projects; learning scripts.

Resumo: Neste artigo, apresentamos uma proposta de ensino-aprendizagem para o desenvolvimento de projetos publicitários com design thinking (DT), considerando como público-alvo estudantes de graduação em Publicidade e Propaganda. A revisão bibliográfica compreende os temas: ensino de projetos publicitários, DT e alinhamento construtivo (AC); seguida do detalhamento da proposta de ensino-aprendizagem e dos elementos que a compõem. Os resultados obtidos evidenciaram a efetividade da proposta de ensino-aprendizagem e apontam a imersão como a fase do DT que os alunos sentem mais dificuldade de realizar. A proposta pode auxiliar professores da área a replicar a experiência por meio dos materiais e recursos disponibilizados e, além disso, o próprio percurso de construção pode servir como orientação para compor outras propostas visando o ensino de Publicidade e Propaganda.

Palavras-chave: alinhamento construtivo; design thinking; ensino de publicidade; projetos publicitários; roteiros de aprendizagem.

Received: 06/23/2018
Approved: 03/04/2019

1. INTRODUCTION

In the context of advertising undergraduate teaching, the development of a project—be it an advertising campaign, a market research or a brand study, for example—requires students to have a set of skills in different stages, such as: gather and select information to understand the problem and needs of the audience and the customer, generate ideas for solving the problem, and ultimately convert those ideas into prototypes and advertising products.

We observed that these steps and abilities to solve an advertising project are related to design thinking (DT), a human-focused approach used to solve complex problems, being initially popularized in the world of business and services, as proposed Vianna et al.2, and later applied to other areas.

In education, DT has been used in different modalities–face-to-face, at distance and corporate–as described by Cavalcanti and Filatro3, as well as other applications to work on interdisciplinary themes such as bullying and school drop-out or to deal with teaching issues in the 21st century and redesign classroom spaces, according to experiences reported by Gonsales4 and Kwek5, respectively.

In this work, we report the adoption of DT in education, contextualized in the classroom, with the presentation of a teaching-learning proposal that integrates the DT to the development of advertising projects, considering undergraduate students in Advertising and Propaganda as target audience. The proposal includes: teaching planning and syllabus, with definition of contents, workload, bibliography, among others; learning script to guide students’ face-to-face and self-study activities; evaluation criteria organized into headings; and the characterization of four advertising projects to be solved with the application of DT.

We believe that the proposal can help teachers of the area to replicate the experience through the materials and resources available and, in addition, the construction course itself can serve as a guide to compose other proposals aimed at the teaching of Advertising and Propaganda. The theoretical foundations, the details of the proposal and its resources, as well as the results obtained with its application are described in the following sections.

2. THE TEACHING OF ADVERTISING PROJECTS

The teaching of advertising projects takes place through curricular components and subjects that deal with different contents, but complement each other. As examples that demonstrate some of these applications, an advertising project can: (1) begin and be finalized in a single discipline and/or curricular component; (2) be carried out in an integrated manner, combining contents and subjects over a period or semester; (3) and/or be carried out in stages by a gradual and collaborative process, resulting in an end product. What will make these distinctions, among others, is the pedagogical project of each course.

(PPC), the pedagogical guidelines of each institution and the methodology used by the teacher.

In the classroom, the teaching of advertising projects occurs through some subjects, namely: Creation and publicity writing, Typology, Photography, Campaign planning and media, among others. Regardless of the type of project, students are required to have a set of skills and in different stages, such as: gathering and selecting information to understand the problem and the needs of the target audience (for whom the project is intended) and of the client, generating ideas to solve the problem, and finally converting those ideas into prototypes and advertising products.

We note that these skills and steps for resolving an advertising project relate to DT. In this sense, in addition to a solution-providing approach to problems, we refer to DT as a thought that, in Brown’s words⁶, corresponds to “the skills that designers have learned over several decades aiming to match the human needs with the technical resources available and the practical limitations of a project”.

While designers have kept this type of thinking active in their profession by giving them a peculiar insight, Brown⁷ argues that human beings are design thinkers by nature, since this approach “draws on our ability to be intuitive, recognize patterns, develop ideas that have an emotional meaning beyond functional, express us in media beyond words or symbols.”

When we consider that this approach can be applied to different areas, we relate this way of thinking to the practices and abilities exercised by Advertising and Propaganda professionals when dealing with the development of projects, so that these skills can also be taught to students in formation.

Just like in design, an advertising project presents diverse natures for the purpose of meeting the needs and desires of the target audience and the client/advertiser. To do so, the steps and abilities of a project assume mapping the culture, contexts, personal experiences and those involved to gain a more complete view of the problem in question, identify barriers and generate alternatives to transpose them.

Considering the aforementioned, the professional training in Advertising and Propaganda should enable the student to coexist with error and experimentation, based on new methodologies and approaches that value their autonomy, these elements being present in the DT as a theme aimed at proposing improvements in teaching and project development.

3. DESIGN THINKING AND CONSTRUCTIVE ALIGNMENT

Our teaching-learning proposal is based on the DT, as an approach for the development of advertising projects, based on an application model proposed by Vianna et al.⁸; and in constructive alignment (CA), for the construction of teaching planning and the organization of pedagogical resources. The two themes are detailed below.
3.1. Design thinking: fundamental concepts

According to Vianna et al.9, The DT is a human-centered approach, “which sees in the multidisciplinarity, collaboration and tangibilization of processes and thoughts, paths that lead to innovative solutions.” From this perspective, the DT refers to the ability to observe a problem from different perspectives, put people at the center of a project’s development, and generate more assertive solutions.

The DT follows a process organized in phases, which can vary between three, four, five or seven. In this work, we adopt the version proposed by Vianna et al.10, who present the DT in three phases: immersion, ideation and prototyping, as shown in Figure 1.

The first phase, immersion, is designed to study the problem from different perspectives, from the survey, selection and analysis of information. This stage is divided into preliminary immersion and deep immersion, with “analysis and synthesis” being the result.

The preliminary immersion comprises the reframing of the problem, with initial collections of data and previous knowledge of the team on the proposed theme, followed by exploratory research (a preliminary field survey through interviews and annotations of the team discussions) and desk research, by consulting electronic (websites and blogs) and physical (magazines, books and periodicals) data sources.

In depth immersion, different research strategies that allow to study the target audience and their needs in a real context can be adopted. To conclude this phase, the analysis and synthesis of the data is done aiming to organize, in categories, the volume of information generated and to draw conclusions that will subsidize the next phase.

The second phase, ideation, aims to achieve a key thought or concept, generating proposals for solution. Then one or more co-creation sessions are set up with users or teams demanding of the project, thus forming a sort of menu of ideas to be validated to guide the next phase.

The third and last phase, prototyping, deals with the transformation of ideas into action plans and the construction of a prototype: a conceptual or analogical representation that can serve as a reference for the construction of the final idea, allowing tests and interactions from users to, by feedbacks, collect improvements for the implementation of the idea.

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Linked to the phases, a set of tools and techniques can be used in the DT processes, with more than 200 alternatives available, according to Melo and Abelheira\textsuperscript{11}, enabling us to study the problem, generate solutions in each phase and test them.

Besides being a process organized in phases, there are three values that permeate this approach: empathy, collaboration and experimentation. Based on the work of the Echos Innovation Lab\textsuperscript{12}, empathy is the ability to put yourself in the other’s place, understanding their actions, the context in which they are inserted and their perspectives. Collaboration refers to the ability to co-create and contribute to multidisciplinary teams. Experimentation, in turn, means building, putting into practice and testing the solutions found in order to improve them and make the necessary modifications.

### 3.2. Constructive Alignment

Proposed by Biggs and Tang\textsuperscript{13}, CA has its origins in constructivism and comprises a set of guidelines to plan teaching, so that teachers can define strategies to improve student learning, value their autonomy and their active participation in the teaching-learning.

In building a CA-driven planning, three key elements should be considered: intended learning outcomes (ILO); teaching-learning activities; and evaluation tasks, as described below.

ILOs are actions or skills that students should be able to perform after learning. One way to organize the ILO is to establish the level of student learning by the Structure of the Observed Learning Outcome (SOLO) taxonomy\textsuperscript{14}, which provides a hierarchical organization in five levels of knowledge: pre-structural, unistructural, multistructural, relational and extended abstract. Each level is represented by a set of verbs that indicate an action to be performed by the student.

Teaching activities are characterized by the actions taken by the teacher in order to provide the conditions for the students to reach the ILO—this includes, for example, planning the teaching, elaborating didactic resources and designing tasks to be solved by the students. The learning activities, in turn, concern the actions to be developed by the students through the study of the contents and the accomplishment of the proposed tasks.

Finally, the evaluation tasks are the instruments and criteria that will be used to measure the range of the ILO, establishing the cognitive level of the constructed learning. Regarding evaluation instruments, we highlight the adoption of headings that, in Brookhart’s view\textsuperscript{15}, can be understood as a coherent set of criteria that allow the teacher to evaluate students’ performance in a given task (writing of report or project, oral presentation etc.), keeping clear on what and how the student will be evaluated, in addition to maintaining confidence and stability in the correction and providing feedbacks.
4. TEACHING-LEARNING PROPOSAL: THINKING DESIGN APPLIED TO ADVERTISING PROJECTS

This section includes the teaching-learning proposal, in which we make a detail of its elaboration and present the elements that compose it: organization of the proposal (which includes the treated syllabus); teaching planning and class dynamics; learning scripts; evaluation; and advertising projects to be developed by students.

4.1. Organization of the proposal

The teaching-learning proposal, under the title “Design thinking applied to advertising projects”\textsuperscript{16}, was planned with a 80 hours workload and considered as target audience the undergraduate Advertising and Propaganda students. The objective is to enable them to solve publicity projects through the study and application of concepts, values, phases and tools of the DT, combining face-to-face and autonomous study.

The organization of the proposal and the preparation of the materials required six months of work to align the syllabus, teaching-learning activities and evaluation. A schematic with the pedagogical organization of the proposal is shown in Figure 2

\textbf{CONSTRUCTIVE ALIGNMENT (CA)}

\textbf{DESIGN THINKING (DT)}

\textbf{SYLLABUS INTENDED LEARNING OUTCOMES (ILO)}

\textbf{TEACHING-LEARNING ACTIVITIES (SCRIPTS) ADVERTISING PROJECTS}

\textbf{EVALUATION (HEADINGS)}

\textbf{Source: prepared by the authors (2018).}

\textbf{Figure 2:} Organization of the teaching-learning proposal

For the elaboration of the syllabus, we consider the knowledge we have about the target audience (undergraduate students in Advertising and Propaganda) and the rationale built by the DT and CA. In the definition of ILO, described in the teaching-learning proposal, we used as criteria: the skills to be developed in each phase of the DT (immersion, ideation and prototyping), with reference to the taxonomy Solo; the contents to be taught; and the student learning level.

The contents of the syllabus were defined based on an \textit{ad hoc} research on DT in the national and international literature, relating these findings to the

\textsuperscript{16} To view the full teaching-learning proposal, access: https://drive.google.com/file/d/1RaJzPLVnljREuHyTisB9DrVaisUQgKs6/view.
context of the Advertising and Propaganda area. Supporting didactic resources (texts, videos, cases, etc.) and the organization of teaching-learning activities also derived from these researches.

To conduct the activities, we use learning scripts that guide the student study in and out of the classroom. To share documents with students, we use Google Drive and, for activity registration, Google Forms.

Aiming to align theoretical and practical knowledge, we prepared four proposals for advertising projects, organized in the form of problems, to be solved by the students as of the adoption of DT, as detailed in section 4.5. Advertising projects.

For the evaluation of student performance, we plan to use holistic headings (see section 4.4. Evaluation), which make it possible to carry out the verification from the definition of criteria to be analyzed together, considering different levels of performance.

4.2. Teaching planning and class dynamics

From the definition of the ILO, we organize the planning and dynamics of the classes, with the definition of contents, methodology, resources and strategies to guide the students’ face-to-face and autonomous study, as shown in Chart 1.

Chart 1: Fragment of teaching planning

<table>
<thead>
<tr>
<th>Script</th>
<th>ILO</th>
<th>Contents</th>
<th>Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Path 1: Innovations for Advertising Projects</td>
<td>• Discuss problems related to the development of advertising projects; • Identify new approaches and trends for innovation in advertising projects.</td>
<td>The changes in the advertising media. New elements for the creation of advertising projects. The profile of advertising professionals in the 21st century. Approaches to innovation in advertising projects.</td>
<td>Lectures on the themes through articles, videos and cases. Resolution of learning itinerary relating the themes worked.</td>
</tr>
</tbody>
</table>

The contents worked are related to specific learning outcomes, according to detailed teaching planning\(^{17}\). For the dynamics of the classes, we defined as main strategies: expositive classes dialogues; activities of face-to-face and autonomous study, with the use of learning scripts; orientation to teams; and project workshops to present the results of the work, with feedback and evaluation.

Based on the organization of the proposal and the definition of activities, the workload was divided between 40 hours of face-to-face study (totaling 10 meetings, 4 hours each) for the lecture-expository dialogue classes, the commented resolution of the scripts and the workshops of projects; and 40

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\(^{17}\) To see the details of teaching planning and content organization, access: https://drive.google.com/file/d/1AVV54PXUQH3QDvWQLvyQYHkHU_2a7lV/view.
hours of autonomous study for the resolution of the scripts, also including a
time for orientation to the teams and resolution of the publicity projects\textsuperscript{18}.

We plan to conduct four project workshops, the first to discuss trends and
innovations in advertising projects and to relate these discussions to the DT.
This setting will provide an introduction to the topic and will help to gather
experiences to think about solving the problems that will be proposed to the
students. The other workshops are designed to present the results in each
phase of the DT, providing feedback for evaluating the projects by headings,
as detailed in section \textit{4.4. Evaluation}.

\textbf{4.3. Learning Scripts}

According to the planning, we adopted learning scripts to lead the students
in face-to-face and autonomous study. In Figure 3, we present a fragment with
some notes that we use to structure the organization of the scripts.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{learning-scripts-organization.png}
\caption{Fragment of the learning scripts organization}
\end{figure}

As shown in Figure 3, they are part of the structure of the scripts: script
title; ILO (described under the title “what we are going to learn”); guidelines
for students to solve the scripts; contextualized presentation of the contents to
be worked; compulsory readings; activities/tasks; rating criteria; schedule for
delivery of activities/tasks; and extra readings.

For our teaching-learning proposal, we constructed seven learning scripts\textsuperscript{19},
each based on specific ILO and including a set of teaching-learning activities
with guidelines for students to solve.
4.4. Evaluation

The evaluation took as reference the stages of development of advertising projects by students, having as instruments of analysis the artifacts they should produce in each phase of the DT: immersion (analysis and synthesis), ideation (idea menu) and prototyping (prototype). To evaluate their performance regarding the quality of these artifacts, we elaborated holistic headings, organized in three levels, advanced, intermediate and basic, according to the fragment illustrated in Figure 4.

![DT PHASES](source)

**Figure 4:** Knowledge and skills considered in the headings

The evaluation criteria considered the learning outcomes and skills required at each stage of the DT. In the immersion phase, for example, some of the skills to be observed are: raising, documenting, organizing and synthesizing information; while in the ideation phase, one must analyze the ability to generate, select, validate, plan and share ideas; and in the last phase, prototyping, testing and (re)planning ideas.

Regarding teamwork, evaluation criteria included items common to all phases: time management; combination and correct application of techniques characteristic of each phase; phase development records; and measuring the triad of DT values—empathy, collaboration, and experimentation.

4.5. Advertising projects

The projects were described in the form of problems and, for their elaboration, we consider current themes, which arouse students’ interest and contact with questions pertinent to their reality.
A script, with a description of the project to be developed, the target audience, sources of consultation and budget forecasting, composes the structure of the problems. The themes of the projects prepared for this proposal are presented in Chart 2.

According to the teaching plan, in certain moments the teams can go to the field to, from the proposed problem and the information collected, apply DT tools, elucidate questions and gather data. At the end of the phases, each team should present, during the workshops, the prototype solution for their respective project.

**Chart 2: Advertising project themes**

| PP1 | Project aimed at stimulating the use of the bicycle by people with sedentary lifestyle. |
| PP2 | Project aimed at strengthening the brand of a higher education institution for its internal public. |
| PP3 | Project aimed at spreading the importance of the National Student Performance Examination (Enade) among students of a higher education course. |
| PP4 | Project focused on the problem of lack of afforestation, designed to raise children’s awareness in the municipal school system. |

Source: Prepared by the authors (2018).

5. FEEDBACKS OF THE PROPOSAL

The teaching-learning proposal was applied as an extension course, in February 2018, for 15 undergraduate students in advertising of a higher education institution. The application followed the planning described in this article, and all the teams were able to apply the DT in the resolution of the proposed advertising projects, according to summaries of the results described in Chart 3.

**Chart 3: Results of advertising projects built**

| PP1 | Proposal of four video scripts for the mobile format aiming to encourage the use of the bicycle as an alternative means of transportation. The scripts of the videos were presented through animated storyboard, with time-lapse video. |
| PP2 | Benchmarking project with the objective of improving internal communication and strengthening the institution’s brand through a set of actions, including: standardization of the visual identity, site realignment and guidelines for the application of the brand. |
| PP3 | Event proposal, with ideation of format and visual identity. The purpose of the action is to disseminate information about Enade and promote integration among students, teachers and course coordination through socio-cultural and educational activities. |
| PP4 | Proposal of an illustrated booklet, for students of the municipal school network, with curiosities and tips on the preservation of trees and the environment. The booklet would also consist of a folding of paper and a seed for planting, including tips and care. |

Source: Prepared by the authors (2018).

In addition to identifying students’ performance in the solution of advertising projects, we applied, at the end of the course, a questionnaire via Google Forms (with open and closed questions), including evaluative questions about the course (execution of the teaching-learning proposal) and a section
devoted to student self-assessment. Regarding the evaluation of the course, we take as criteria the quality of the learning itineraries, the adequacy of the sequence of contents, the quality of audiovisual resources, the balance between learning activities, the total course workload, laboratory infrastructure, and the evaluation and feedback criteria employed by the teacher, as shown in Graphic 1.

**Graphic 1: Course evaluation**

With the exception of the workload, more than 87% of the students declared to be “very satisfied” or “satisfied” with the teaching-learning proposal regarding the other criteria, according to the data analysis in Graphic 1. Although they considered the need to increase the workload for the projects, we observed in the accompaniment and in the individual orientations that the time allocated to the activities could be optimized by overcoming the difficulties of the students with the teamwork.

**Graphic 2: Self-assessment of students in the course**

Regarding students' self-assessment of their performance over the course, as shown in Graphic 2, we observed that the greatest difficulty is to perform self-study activities, those specifically without the teacher. This is an aspect that needs to be better understood by managers and teachers in order to promote the culture of autonomous study within higher education institutions, which often have learning relationships limited to the classroom context and, as a matter of priority, “guided” by the teacher.
The difficulties of teamwork are also observed in the students’ self-assessment (Graphic 3). Throughout the resolution of advertising projects, we observed, through classroom and laboratory guidelines, that some of these issues were related to inexperience regarding the use of time management techniques and the difficulties of team members to meet in person to discuss the stages of work. In this way, we anticipate adjustments in planning, to allow more time for personal orientations to the teams, through mentoring.

**Graphic 3: Self-assessment in the design thinking and overall performance phases**

We found that empathy and collaboration are values whose experience is difficult for students. In future applications, we intend to mitigate these problems, creating learning situations that demonstrate, in practice, the values of the DT and the importance of these elements for teamwork through dynamics and case studies.

Regarding the performance of the students in each phase of the DT, the self-assessment revealed that immersion is the phase they indicated to have more difficulties. It is important to emphasize that this phase is the one that requires more attention and more tasks throughout its execution, considering the large volume of data generated, as well as the inexperience with the application of most DT techniques and tools.

In phase 2, ideation, the main difficulty reported was to define a single idea for the solution based on the data generated in the previous phase and on the viability of the insights generated. We observed that the teams that did not present many problems in the immersion carried out the phase of ideation without major difficulties and brought ideas pertinent to the problem proposed.

In the prototyping phase, the difficulties reported by the students were associated with the short time for the construction and validation of the idea, as well as the need to collect some inputs and the applicability of construction of the artifacts. Repeatedly, student reports point to the difficulties of bringing team members together.

In the general analysis of the proposal, the students reported a gradual increase of the contents taught throughout the course, increasing their knowledge
about DT and applicability in the resolution of an advertising project. “My knowledge went from nothing to [a knowledge of] someone well pleased with the DT. The phase division helps a lot in the construction of the project, and I will definitely take the DT to life,” said one participant.

Based on feedback, we consider the proposal to be feasible, with adequate planning, materials and resources. The feedback collected will also help improve team orientation on time management techniques, and include dynamics to work on DT values to enhance teamwork.

6. FINAL CONSIDERATIONS

In this work, we present a teaching-learning proposal that uses DT for the development of advertising projects, considering the context of undergraduate students in Advertising and Propaganda.

Although teaching problems involve other organizational, technological, infrastructure and pedagogical training issues of teachers, for example, we believe that the adoption of a teaching-learning proposal that combines technical and pedagogical aspects, attuned to the tendencies both in business and education, can contribute to the training of students and reflection on the action of the teacher. It was from this perspective that we adopted DT as a way to promote improvements in the teaching-learning process of advertising projects.

Considering this experience and the results obtained, the proposal presented adds contributions to the teaching of Advertising and Propaganda, highlighting that: (1) it promotes improvements in the education of this knowledge field, insofar as it deals with an emerging theme, contextualizing it to the resolution of advertising projects and applying it to the context of students in training; (2) it provides students with a set of techniques, tools and values that will assist them in different phases of the resolution of advertising projects and are widely valued in the business world; and (3) it potentiates the action of other teachers in the area, since the planning and resources developed in this proposal are freely available for download, allowing their replication.

We believe that the reported experience can help teachers in the area, in the sense that the planning developed can be replicated in other teaching contexts, as well as the course of construction of the work can serve as a guide for the elaboration of other proposals aimed at the teaching of Advertising and Propaganda.

BIBLIOGRAPHICAL REFERENCES


