

THE COLLEGE TEXTBOOK: A METHODOLOGICAL APPROACH

EL LIBRO DE TEXTO UNIVERSITARIO. UN ENFOQUE METODOLÓGICO

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ABSTRACT

In this article, the reader will find methodological guidelines on how to write a college textbook. It offers procedures for setting up a work team responsible for the preparation of textbooks; explains how to define the topics to be addressed, as well as procedures for information management, and detection of appropriate literature. Additionally, it emphasizes theoretical research types, interpretation of theories, theoretical conclusions and the pedagogical function of the college textbook. Finally, it provides some editorial guidelines, such as textbook structure, notes, bibliographical references, images and charts, authors' biographies, correction stage, and final review up to distribution.

Keywords: college textbook, knowledge management, text editing

RESUMEN

En el presente trabajo, el lector encontrará pautas metodológicas para la realización de un libro de texto universitario; se sistematizan procedimientos para la conformación del equipo de trabajo encargado de la elaboración de los libros de texto; se explica cómo delimitar las temáticas que pueden ser abordadas; se exponen los procedimientos de gestión de la información, así como la detección de la literatura apropiada. Además, se enfatiza en las formas de indagación teórica, interpretación de teorías, conclusiones teóricas y las funciones didácticas del libro de texto. Por último, se exponen algunas pautas editoriales que van, desde la estructura del libro de texto, notas, referencias bibliográficas, tratamiento de imágenes o tablas, semblanza de los autores, etapa de corrección; hasta la revisión final y puesta en valor de la obra.

Palabras clave: libro de texto universitario, gestión del conocimiento, edición de textos

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INTRODUCTION

According to Acero (2008), college textbooks play a vital role in education because they structure the teaching and learning processes; they have a decisive influence, both on faculty and students, are a source of not only curricular contents, but also an organized presentation within a structure of a body of knowledge, together with an implicit didactical style.

However, reality is far from the above proposal and all material, summaries, handouts, modules, study guides, etc., that are in many cases prepared without control and without confirmed academic quality, differ from the students' interests and needs. Consequently, "analysis and research show books filled with conceptual errors and ideological stereotypes, in addition to not being, in most cases, tested and assessed prior to their presentation" (Martínez, 2006, p. 63).

In his doctoral thesis, Fernández (2006) explains that most textbooks exhibit an impotence to promote motivation intrinsically, due to a standardized format and unidirectional communication. He adds that the diversity principle is not observed and that the main functions are instructional (to provoke remembering and application of what was read) and evaluative.

Martínez (2008), in his article "Los libros de texto como práctica discursiva," states that these must be stripped of their static, finished and closed nature, where there is no dialectics or critical reconstruction. He explains that there is a need for textbooks without the traditional academic segmentation, which generates when knowledge is organized from academia and is presented in the same way it is

prepared in academia. On the contrary, there is a need for books that prioritize complexity, the search for relations, disciplinary interaction, interconnection of scientific knowledge, shared knowledge, globalizing view, as well as other types of knowledge that are also useful for building and developing culture even if they don't fall inside the traditional academic disciplines.

These shortcomings force the instructors to turn to other sources so as not to incur in the unwise orientation of the student; but the problem prevails and is evidenced in the scarce production of textbooks that cater to the needs of students, teachers and the entire sociocultural context. Thus the need to think of relevant and holistic college textbooks, closer to the sociocultural context, where they come together in an instructional, academic development, affective and social functions among students, teachers and society at large.

This set of problems, recurrent in the current educational environment, as already mentioned, was the main motivation for this study.

FUNDAMENTALS OF THE TEXTBOOK

Before offering any rationale to this regard, it should be noted that the main objective of this article is not to theorize excessively in such sense, but to bring clarifying rather than obscure ideas to the reader.

A study published by the School of Philosophy and Literature from Universidad Nacional Autónoma de México, approaches the textbook from three fundamental perspectives. The first, alludes to the textbook

as a cultural objectification of the curriculum in all its dimensions; the second, as constructor of new conceptions and practices regarding its utilization in education and, finally, as that which objectifies relationships between social discourse and representation (Escolano, 2000, cited by Celis, 2001, p. 3). On the other hand, for Fernández (2006), textbooks are “the only mandatory books for society.” They are “the visible and concrete pretext that allows to look into the difficulties found by teachers to transform their teaching into a liberating social action for themselves and their students” (p. 183).

A new textbook culture is emerging, mainly in the United States, where open textbooks are beginning to gain greater prominence in the country’s educational scenario. A free book that can be accessed on the internet and prepared according to the educational needs of a contextualized teaching-learning process. According to the Public Interest Research Groups (PIRGs), open textbooks are free, online, high-quality college textbooks. Under this modality, the books can be legally adapted by teachers, who can add new material, change terminology or delete chapters not needed for their particular interests (Student PIRGs, 2012).

A textbook is “a mediator between the teacher and the student (Celis, 2001, p. 1). A “specific teaching material used by a professor in the process of organizing the teaching-learning work with a student group or collective” (Martínez, 2008, p. 62). It’s that multilateral, dialectics, didactical, practical and flexible consultation material; based on current cognitions, in tune with the technology and a deep vision of the problems of the sociocultural and future context, that favors academic, professional and axiological training among students, teachers and society.

METHODOLOGICAL PROPOSAL

The proposal presented below is comprised of a series of steps, whose objectives are to organize the entire editorial process of the college textbook and propose the procedures required by this academic exercise.

1. Line-up of the work team

Structuring the work team is one of the most important moments, since here is where the success of the work to be created can be decided or defined. This requires ensuring that the teachers selected are those that, from a comprehensive view, meet the suitable conditions, i.e., they have total command of the theoretical aspects that will sustain the work, as well as of the methodological procedures required by the task. Conscious teachers who are constantly in search for “participatory communication and exploration that result in innovation” (Edmondson & Nembhard, 2010, p. 67) are required. In short, “the challenges of work team can be enormous; but if they are overcome with skill, those same challenges can help develop the adaptation ability...” (p. 65), creativity and innovation.

Based on the above, procedures for the line-up of a work team are proposed:

- a) Make a curricular screening of those professionals with a potential to participate in the process of preparing the textbook. Said screening can be the result of previous evaluations made by the institution where they work; it is not recommended to convene those professionals who do not have proven experience.
- b) Appoint a multi-disciplinary team to assess the documented resumes for the pre-screened individuals. This team

shall be made up of professionals with proven academic track-history and in no case shall the person making the selection be an author.

- c) The multi-disciplinary team can select directly some teachers (no more than two preferably). This happens when the individuals directly selected have a proven and documented academic track-record.
- d) After a thorough evaluation process, both of the resume and the candidate's competencies, the teachers whose track-records match the requirements shall be selected.
- e) Inform the selected teachers in writing.
- f) Introduce the approved work team to the corresponding supervising department.
- g) Prepare the work plan defining roles, as well as monitoring of said roles on the short, medium and long term.

2. Textbook themes

In order to plan the topics to be covered in the textbook, it is required first to prioritize the topics considered in the curricular experience or study program for a certain course, so that these are sorted according to the previous curricular schedule. However, this is not a closed idea, since said topics can be enriched with other sub-topics that contribute to the holistic education of students and readers in general; even though these are considered for the teaching practice per se. The topics shall be consistent between the students beneficiary's needs and the sociocultural environment around them.

After this step, the topics selected are subjected to expert opinion, i.e., a multi disciplinary team is consulted, who, taking the course's curricular schedule as a reference, confirms the contents selected and provides

an opinion regarding their suitability. Once approval is received, work shall be started. For this, the editor or individual in charge shall draw up some guidelines, taking into consideration that the preparation of a college textbook is, above all, an act of cultural creation and as such it shall be undertaken.

Each topic to be covered shall have a previous summary introducing the subject, and explaining the objective, the structure and main findings of the study. For this, "a selection and condensation of the key contents is made, where any trivial and secondary information shall be omitted. A good summary must communicate the ideas in an expedited, precise and agile manner" (Universidad Cristóbal Colón, s.f., p. 2) Similarly, the possible background pertaining to the topic to be developed shall be contended and, at the same time, explain how they relate to it. The information coming from other sources is cited according to the selected style. Once each topic has been developed, according to the agreed upon criteria, the notes (if any), bibliographic references and, the author or authors' biography shall be added.

3. Methodology to select theoretical information

In order to select the appropriate theoretical information, it is essential to assume that, oftentimes, authenticity, quantity and currency of the selected bibliography, condition the theoretical, methodological and practical usefulness of the text.

Currently, there is much information available, whether in information centers or other media, such as internet. Thus, it is becoming easier every time to access new, convenient and useful knowledge; but, at the

same time, we find plenty of information of a dubious quality and origin. Knowing how to choose the best contents is, thus, a big challenge for the researchers who are part of the work team.

Two table models that facilitate an adequate bibliography management are presented below.

These tables do not represent rigid or closed ideas, rather flexible ones that adjust to the curricular needs. They represent a starting point required for the correct management of bibliographic references. Thus, the objective application of them would provide the book with currency, a high level of theoretical depuration, support and usefulness, not only for the students, but also for the teachers and the society at large.

a. Detecting the appropriate literature

For the development of this step, a conceptual framework will be made; it consists mainly of looking for those theories, theoretical details and concepts that are relevant to the textbook. For this, the following model of bibliography card will be used (see Figure 1):

According to Sánchez (2008), bibliography cards are an essential instrument in the research process, particularly in the initial phase of consulting books or sources that are the basis for analysis and argumentation. The function of a bibliography card is to identify information sources to be examined or studied in order to write the books, brochures, magazine articles, theses, etc. (p. 2). Thus, they enable an easier command and handling of all relevant information for the making of the textbook.

b. Theoretical inquiry

The authors shall make sure that the theories to be used for the development of

the topics are novel and pertinent. They shall analyze them, compare them and establish inflexion and useful points among them. According to Hernández, Fernández and Baptista (2005): "A theory is useful because it describes, explains and predicts the phenomenon or fact it refers to; additionally it organizes knowledge about it and guides the research being conducted about the phenomenon" (p. 60). They add that "the most common criteria to assess a theory are: the capacity for description, explanation and prediction; the logic consistency; the perspective, fruition and parsimony" (p. 61).

According to Hernández, Fernández and Baptista (2010), the theoretical inquiry processes (literature review) are very important because they can reveal different degrees of development of knowledge; in the case of the making of a textbook, the work team assigned shall corroborate that there is a gap in knowledge that needs to be resolved, focus on that and do not wear away trying to "reinvent the wheel."

c. Interpreting theories

At this time, the professional can rely on the philosophical, inductive-deductive, historical and other methods, among others. It is about a relevant theoretical approach that helps prevent errors that have been made in other studies, that guides on how the study will be carried out, that widens the study horizon and guides the researcher so this can focus in their problem avoiding deviations from the original proposal. One that leads to the establishment of affirmations that will later be subject to a reality check. That inspire new lines and areas of research and that provide a referential framework to interpret the results of the study (Hernández, Fernández and Baptista, 2010, p. 52).

Besides all that, interpreting the theories consulted is also a strictly methodological

Table 1.

Proposal for a bibliographic reference (mandatory) management table

Sources for citing and referencing	Minimum number	%	Condition	Currency
Printed or online magazines with ISSN	20	50	Mandatory	50% last five years
Printed or online books with ISBN	5	15	Mandatory	
Approved doctoral theses	2	15	Mandatory	
Keynote speeches	1	10	Mandatory	
Approved theses (masters, licentiate, engineering)	1	5	Mandatory	
Academic repositories	1	5	Mandatory	
Total	30	100		

Source: Own material

Table 2.

Proposal for a bibliographic reference (optional) management table

Sources for citing and referencing	Maximum number	%	Condition	Currency
Web pages	4	-	Optional	100% last five years
Videoconferencing	4	-	Optional	
Printed or online newspapers	2	-	Optional	
Blogs	2	-	Optional	
Non-indexed books and magazines	2	-	Optional	
Unpublished research	1	-	Optional	
Interviews	2	-	Optional	
Data	2	-	Optional	
Other	1	-	Optional	
Total	20	-		

Source: Own material

Date (in real time):	(day/month/year)
Name(s) of the author(s):	Gloria
Last names:	Fariñas León
Name(s) and last names of (translator; prologue writer; illustrator; coordinator; etc.)	
Title of the book/article, etc.	Psychology, education and society. A study about...
Year: 2007 Place of edition:	La Habana, Cuba Edition no. 1.st ed.
Editorial:	Félix Varela
Page(s) consulted:	5
Total pages:	224
Code (as appropriate):	Printer version: ISBN 978-959-07-0586-1
Website (if any):	(Not applicable)
Date accessed (if any):	(Not applicable)
Text citation:	The relationship between education and human development does not respond to a linear or mechanical coincidence, this refers in part to the complexity of this relationship.

Figure 1. Model of bibliography card (resolved). Source: Own material.

activity that should be done with extreme thoroughness and creativity. For that, it is not enough to find the appropriate information, since the most important fact is that this information be correctly interpreted and adapted to the sociocultural context. If this cannot be done, then it should be rejected because it does not match the theoretical need and thus lacks application and social implications.

d. Theoretical conclusions

This is the deductive part and, although many researchers prefer to develop it at the end of each topic, it can also be done consecutively at the closing of each sub-topic; however, the first option is recommended.

Theoretical conclusions result from the application of the inductive method and, as the name theoretical conclusions indicates, they lead to a knowledge that is considered the theoretical basis or contribution. This moment is very important, because the professional must have the ability to synthesize ideas and highlight those that are more convenient for the academic work being developed.

e. Didactical functions

Theoretical information is not enough. Didactical books that “contribute to create the conditions for the students to absorb the contents of teaching... implied in said activity” (Borja, 2005, p. 1) are required.

To this end, Borja (2005) added that the following didactical functions are required in every textbook:

- Informational. Presentation of the total amount of information required by the corresponding course’s study guide.
- Transforming. In two senses: 1) didactic reworking of contents; 2) conversion of the purely cognitive activity of students into a transforming activity.
- Systematizing. Presentation of the

teacher’s material in a systematized sequence so that the student will master the scientific systematization procedures.

- Consolidation and control. Contribution so that the students can have a guide to the acquired knowledge and can rely on it for the practical exercise.
- Self-preparation. Training of desire to learn and capacity for self-learning in the students.
- Integrating. Helps students to absorb and select knowledge as a whole.
- Coordinating. Ensuring the most effective and functional use of all the teaching media and the use of mass information extra-instructor media.
- Developing and educational. Contribution to the active training of the essential traits of a harmonious and developed personality.

Although these observations are widely shared and assumed, it is worth complementing them with some observations. As already stated, the information contained in the college textbook can exceed curricular scheduling and enrich itself with other topics with a shared interest among teachers, students and readers in general.

Finally, current student societies require textbooks that deal with problem solving, that make it possible to give a logical sense to theory, in other words, that link the cognitive, evaluative and practical aspects in a single place; academically innovative textbooks that enable the student’s sociocultural development. “That transform the way we think and act in education” (From Zubiría, 2011, p. 37). Original texts that lead not only to identify, but also to systematize and solve sociocultural problems not resolved in previous textbooks.

4. Drafting of the Textbook

Once the previous aspects have been defined, and with all the researched information in hand, the drafting can begin. For this, a methodological order shall be followed, according to the steps below:

a. Structure of the textbook

The structure of the textbook will be comprised of the following elements: front cover, back cover, table of contents, introduction, chapters (which can be divided into sub-chapters, to avoid an excessive burden of contents), notes (if any), bibliographic references (Pérez, Pupo & Buenaventura, 2011, p. 6), and biography of the author(s).

The footnotes, as indicated by their name, are some observations which, given their lower significance, shall be placed at the bottom of the page or at the end of the document. In spite of the above, it is recommended to avoid them provided the clarity and intentionality of the information provided is not affected. The guides provided by the APA 6th ed. shall be taken into account, thus, in following this style, “parenthesis are used within the text instead of footnotes or endnotes” (Centro de Escritura Javeriano, 2010, p. 4).

On the other hand, the authors’ biography is considered an optional step; however, if included, it is advisable to place it on the front page, or at the end right before the references. It is suggested to write no more than 80 words long, providing the author’s full name, professional title and academic or scientific degrees. Information regarding institutional awards, publications, institution of origin, etc. must also appear. Finally, e-mail address, telephone number and any other information deemed useful and relevant.

The references are placed with that name (References), at the end of the

document, according to the style guide selected. The APA 6th ed. Style guide is recommended, because it is “one of the most internationally known and probably the most widely used today” (Centro de Escritura Javeriano, 2010, p. 2). Additionally, “they are the reference framework for the presentation of scientific communications which are characterized by clear and continuous writing, absence of adjectives and statements implying language biases and written in third persona or infinitive.” (Universidad Piloto de Colombia, 2010, p. 1). Nonetheless, there are other standards that are very useful and internationally accepted, such as ISO, Harvard, Vancouver, among others.

b. Treatment of images or tables

Both images and tables shall have a title in the upper part and the source of origin on the bottom part of it. According to De la Vega (2012), the figures can be:

- Diagrams: may describe the relationships between parts of a group or object
- Drawings: help emphasize any aspect of an image or idea
- Dot maps: show the population density or something else
- Shadow mapping: represent averages
- Photographs: with professional quality

Pie charts can also be used; in every case, the source shall be specified. If the graph is prepared by the author, then the information shall be included at the bottom of the graph.

Tables should be avoided whenever possible but if they are to be used, they should all be organized under a single style.

c. Correction stage

The correction/editing stage, unlike what many “experts” think, is not an automatic or easy process. It is, rather, a scientific activity that under no circumstance shall be assumed

by the author, who could be the worse editor. A thorough double review is recommended; followed, finally, by an evaluative review where the highest-ranked editor issues final approval.

Lastly, several copies of the final draft shall be printed and then a very thorough and detailed review shall be carried out by the editor, proofreaders, authors and other specialists so as to fix any last-minute problems and authorize publishing of the college textbook.

CONCLUSIONS

Currently, the production of college textbooks, in addition to being scarce, is not coherent with the educational needs of today. Thus, the need to produce works with content that can make viable academic relations between students, teachers and society, is hereby highlighted.

In the same way, the topics to be covered in the book shall be organized based on a prior curricular schedule, without this meaning a closed idea, because such topics can be enriched with other sub-topics that contribute to the comprehensive education of students, teachers and society.

The contents that are not only convenient but relevant to manage the theoretical information of a college textbook need to be found; failing to do so could bring adverse results for everyone, especially the students. Consequently, the theoretical information needs to be novel, appropriate, criticized, and compared to others and be able to show its usefulness in the cognitive, evaluative and practical areas. In that sense, this research proposes two tables that facilitate the management of citing and bibliography cards.

The structure of the college textbook, according to Pérez, Pupo and Buenaventura (2011), shall contain the following elements: front cover, back cover, table of contents, introduction, chapters (which can be divided into sub-chapters, to avoid an excessive burden of contents), notes (if any), references and biography of the authors.

The application of this methodological proposal, guarantees that the college textbooks are edited not only with the required academic quality, but in a controlled manner. It guarantees that students, teachers and society have access to books with no conceptual errors, ideological stereotypes, open works based on the critical construction of knowledge.

Additionally, this proposal makes it possible for textbooks to have plenty of integrality because, in addition to facilitating interdisciplinary interaction and interconnection of scientific knowledge, shared knowledge and the globalizing view, they are used to construct (and reconstruct) culture, even if they are not an object of study in academy per se.

Finally, this methodology guarantees that the creation of the college textbook is done with a minimum margin of error, since its edition depends exclusively on the cultural objectification of the curriculum in all its dimensions, on the construction of new conceptions and practices and regarding its use in education, as well as the concretion of relationships between social discourse and representations (Escolano, 2000, cited by Celis, 2001, p. 3).

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