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THE TEXTUAL CHARACTERISATION OF THE FINAL REPORT AT THE END OF BACHELOR'S AND ENGINEERING STUDIES

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Abstract

This paper is the result of the first phase of the project initiated last year to deepen the study of a recurrently overlooked phenomenon: the professional internship project. Therefore, a documentary review was conducted to identify the textual typology that undergraduate and engineering students should develop at the end of their professional internships. Subsequently, a conceptual delimitation was made to identify and specify the characteristics of the manuscript that the students wrote during their stays in the companies. Since no studies were carried out on the phenomenon in question, the exploratory method was used to glimpse the structure corresponding to the textual framework typical of the educational level and model dealt with here.

Keywords: characterization, internships, engineering, degree, project.

Introduction

There are several ways to validate the university educational level, either using a degree exam or elaborating a thesis (the traditional way);. However, alternatives have been implemented, such as professional experience, academic average and completion of a project, which acquires different nuances, according to the educational model to which each university adheres, remaining impregnated in the graduates for life, since it provides a specific identity of the training received.

After the creation of the educational model and subsystem called Technological Universities (Mexico) in 1998 until today, the General Coordination of Technological and Polytechnic Universities determined the implementation of a project for obtaining a university degree, which was changed over time to meet the needs of the economic-business context and thus complete professional studies; however, it has often not responded to the nature of the same.

1. Problem

Technological Universities were created by the educational authorities to respond to the social demands of a population sector, high school graduates, as well as those of the productive sector of goods and services, because after Mexico entered into GATT, it was necessary to create skilled labour, whose training time was given through short cycles to be incorporated immediately into the labour sector, giving rise to the UT model, which began with the Higher Technical University (TSU) level and over time, the level of bachelor's degree and engineering was offered.

At the end of both training periods, students enter the companies to carry out professional internships to apply the knowledge acquired, a period during which they must write down the experience acquired, guided by an academic advisor appointed by the institution. The name of the manuscript assumed denominations such as internship report, internship project, and dissertation, the most common. However, it was not established at the outset what the specific document to be produced should be and through which the students would acquire the identity of the educational model. For this study, only the eleventh quarter term was considered since it is here where the expertise acquired by them upon completion of their professional training after having completed eleven semesters (three years and eleven months) becomes evident.

The crucial point is when the students have to translate their experiences acquired in the companies, textualising them under a specific character, to fulfil the degree requirement, leaving aside the typification established by the educational institution: project, which later changed to dissertation. However, it remains to be analysed whether or not these works comply with the elements of the aforementioned typologies. This will allow the investigation of the written modality that should validate the qualification of the students who complete their university training. Then, emerges the next question: What is the ideal type of project that students should write in the eleventh quarter term?

2. Objectives

General objective:

To pose the possible textual structure of written documents to be developed by students who completed undergraduate and engineering internships according to the guidelines or policies of subsystem development established by the CGUTyP.

Specific objectives:

- a) Identify the aspects indicated by the subsystem policies regarding the document to be developed by students at the end of the eleventh quarter.
- b) To identify the types of documents that the selected UTs request from undergraduate and engineering students.
- c) Specify the structure of the final document requested, as well as its specific name

3. Justification of the study

The present work is valid because it is an instrument established by the CGUTyP since the beginning of the subsystem for the graduates' degrees. It requires structural precision as a final document that students must write at the end of their professional training.

However, due to the peculiarity of the subsystem (being a decentralized public organism), the structure of the manuscript to be done by the students was determined-typified a project, but not the structure it should contain. Therefore, the aim is to determine the possible configuration and integration of the document the graduates must write at the end of their studies.

So far, both the CGUTyP and each of the UTs have overlooked this situation since the most important thing is to have a terminal efficiency rate in line with the national average, leaving in the background the importance of the document that closes the student's training cycle, which expresses and manifests the identity with the educational model. Hence, it is intended to design the typology of the document itself, complying with policies/guidelines.

On the other hand, the CGUTyP determines in Program E010 (Provision of Higher and Postgraduate Education Services, 2022), that the fundamental objective of the subsystem is:

To develop the human potential of Mexicans with quality education, curricula and programs of study must be relevant and contribute to students' successfully advancing in their educational trajectory while developing meaningful learning and competencies that will serve them throughout life (para. 5).

Whose mission is that:

Technological and Polytechnic Universities represent the philosophical, social, political and pedagogical ideology of higher education in Mexico, for which it is necessary to establish it in a conceptual and methodological framework for the integral formation of Mexicans, as well as to generate and disseminate knowledge, cultures and solidarity, which contribute to improving the conditions of welfare, social justice, democracy and peace throughout the national territory (para. 2).

4. Literature review

4.1 As a background.

Firstly, the Mexican Educative System at the Superior Level (MES) lacks a clear concept of what it is, what it is for, and its characteristics. These characteristics and differences with other concepts, such as the dissertation or the research project, are used synonymously in various higher education institutions (Ibarra, 2017).

Secondly, due to the autonomy of Mexican universities, the Ministry of Public Education (SEP) has shown a flexible stance in the establishment of degree modalities, as well as the definition of collective and unified concepts in this regard, manifested in the document *La Estructura del Sistema Educativo Mexicano*, 'in which it is mentioned that there are different modalities for students to conclude their studies and obtain a professional degree' (SEP, 200, p. 15).

Similarly, the document states that universities should ask their graduates to write a written work, which, upon completion, should be presented to a previously appointed jury for evaluation. Thus, universities will require the elaboration of a thesis or dissertation of lesser length and depth than the thesis, monographic reports on some professional experience, or, in another case, a general exam, together with reading comprehension in one or two languages other than Spanish, frequently in English or French (SEP, 2000).

On the other hand, some universities have decided to circumvent or reduce the impact of the thesis degree by developing alternative modalities that are more efficient in a shorter period, with the least investment of resources and that contribute to educational quality indicators such as the number of graduates and graduates, regardless of the way of obtaining the degree (Ibarra, 2017). Among these options (to mention a few) are standardised tests focused on the knowledge acquired in the degree and professional experience that relegates the research process because graduates are already working, obtaining the degree on average. Thus, the future of the degree is uncertain (Valiente et al., 2021; Scott, 2009).

Thus, carrying out the same situation as the other educative modalities like Technological Superior Universities, the following will be addressed.

4.2 The sub-system.

For the best clarity of the topic, referring to the educational subsystem is necessary. In this way, It is helpful to delve into the origins of the TUs to learn about the guidelines established to meet the requirements for graduation. It was in the last century, in the early 70s and late 80's, that feasibility studies were completed/updated for the creation of an educational model that would respond in a particular way to the needs of the industrial sector, based on the University Institute of Technology (IUT) in France, the Junior College in the US, among others [such as institutions in Germany and Japan]" (López, 2008, p. 147; Anonymous, n.d.).

Thus, the Ministry of Public Education (SEP), analyzing the higher education system at the national level, sought a balance between educational demand and supply, diversifying options for high school graduates who wished to pursue higher education and enter the labour market in a short period, based on the Educational Modernization Program 1989-1994, The studies carried out by the Undersecretary

of Education and Technological Research (SEIT) and the National Autonomous University of Mexico (UNAM) were added (Anonymous, n.d.), giving rise to the Technological Universities (UT) subsystem.

With the creation of the General Coordination of Technological Universities (CGUT, 2006), the main objective of this educational model was established: "to offer students who have finished high school an intensive training that will allow them to join productive work in a short period or to continue with specialization and degree studies" (p. 24).

4.3 Graduates' degrees.

To understand this process, it is important to point out that the model has two types of training: the Technical University Degree (TSU, level 5B), which is completed in two years of intensive studies, divided into six semesters, with the alternative of a part-time program that can finish in three years, both with a total of 3,000 hours of practical work. The Study Plan has three principal axes that contemplate in the first place, to be 70% practical and 30% theoretical; secondly, general knowledge is provided in each area in 80% and specialization corresponds to 20%, which is acquired in the last months of the 15-week stay in a company during the sixth four-month period; thirdly, it has essential areas of knowledge: Basic applied sciences; Technical knowledge; Languages and methods; Socio-cultural training (CGUT, 2006b, Billet, 2001).

On the other hand, the Bachelor's or Engineering level (level 5A) (ISCED, 2011), is studied in five additional semesters, with a duration of 1,980 hours and a technical stay (i.e., one year and eight months). The curricular contents are 60% practical and 40% theoretical of a professionalizing nature, to train senior managers, favoring the development of competencies related to applied research and technological development. For students to access the Bachelor's Degree/Engineering level, they must obtain the TSU degree, as well as have completed and passed their professional internship, which is a decisive period for the future graduate. In it the student raises and develops a productive project applicable for the benefit of the company where it is carried out, the approval of this last stage of the career allows him/her to obtain the title and professional certificate as a Higher University Technician (TSU/Bachelor's Degree/Engineering), by exposing verbally and in writing the results obtained (UTIZM, 2018).

4.4 Document to be developed.

Now, in the Policies for the operation, development and consolidation of the subsystem, issued by the General Coordination of Technological Universities (CGUT, 2002), section X, Graduation and Graduation, determines the requirements for students to graduate and thus be able to obtain a degree. In the first place, to comply with the internship and secondly, the presentation of a report at the end of the internship, although it could be omitted by presenting a general exam designed by the teachers of the subsystem. No formal document was established for the culmination of studies at that time.

Subsequently, the previous version was updated within the framework of the National Education Program 2001-2006, of the General Education Law and in

compliance with the attributions conferred by the internal regulations of the Ministry of Public Education, the CGUT (2006) determined that the degree implied “the stay, the presentation of the report of the stay and the presentation of the general exam for graduation of university technician, designed by teachers of the technological universities subsystem and applied by the CENEVAL” (p. 31).

The Institutional Program for Educational Development (PIDE) of the Universidad Tecnológica de Xicontepec de Juárez (UTXI) complements the professional training of students (TSU/graduate and engineering level), which allows them to put into practice the competencies related to work methodology, at an intellectual-practical level to solve problematic situations in real conditions, a work program is established between the UT and the companies, through an academic tutor and a professional tutor. Both design the project to be carried out by the students, which is evaluated periodically from the beginning of the stay, specifying the objectives, tasks, duration, and results to be obtained by the student. At the end, the student must submit a report that is reviewed by his or her tutor and submitted for approval to proceed to process his or her professional degree.

Likewise, Ruíz (2022) states that:

Once the student concludes his or her internship, the experiences and results learned must be reflected in a report to be presented in the degree examination before a jury of representatives of both the company and the university (p.156).

After addressing the operative part that supports the topic in question, the necessary terminological precisions must be made, which allows one to locate the ideal textual product that should be elaborated by bachelor's degree and engineering graduates. However, over the years and the peculiarity of the subsystem (being a decentralized public body), where a rector is appointed as the highest authority at both academic and administrative levels, to carry out the necessary steps to enable optimal functioning in each of the institutional areas, it was determined-typified the structure of the manuscript to be made by students: project; but not the prototype, model or format to follow.

So far, both the CGUTyP and each of the UTs have overlooked this situation since the most important thing is to have a terminal efficiency rate by the national average, leaving in the background the importance of the document that closes the student's professional training cycle, which expresses-manifests the identity with the educational model. Hence, the intention is to design the typology of the document itself, complying with the policies/guidelines itself.

Furthermore, the CGUTyP determines in Program E010 (Provision of Higher and Postgraduate Education Services, 2022), that the fundamental objective of the subsystem is:

To develop Mexicans' human potential with quality education, curricula and programs of study must be relevant and contribute to students' successful advancement in their educational trajectory while developing meaningful learning and competencies that will serve them throughout their lives (para. 5).

Whose mission is that:

Technological and Polytechnic Universities represent the philosophical, social, political and pedagogical ideology of higher education in Mexico, for which it is necessary to establish it in a conceptual and methodological framework for the integral formation of Mexicans, as well as to generate and disseminate knowledge, cultures and solidarity, which contribute to improving the conditions of welfare, social justice, democracy and peace throughout the national territory (para. 2).

In this sense, it is necessary to develop and precise the structure and methodology of the final work of undergraduate and engineering internships since it profiles students professionally, provides them with an identity in accordance with the area of knowledge in which they were trained, projecting them towards a specific job performance.

4.5 Textual typologies for titling implemented by some TUs.

Thesis or project

In trying to specify the document that students must develop, it is essential to distinguish between what research (characteristic of a thesis) is and what a research project is. Thus, the former refers to a process to demonstrate a phenomenon or prove a truth by manipulating a series of variables to demonstrate it. In this sense, Kerlinger (1993) states that it is a controlled critique guided by the theory and the hypothesis about the supposed relations that [it maintains with a given phenomenon]" (p. 11); Ander-Egg (1992) states that 'it is a reflective, systematic and controlled process to demonstrate a fact' (p. 57); while Zorrilla (1992) refers that 'it is a reflexive, systematic and controlled process to demonstrate a fact' (p. 57); while Zorrilla (1992) refers that 'it is a process to demonstrate a fact' (p. 57); while Zorrilla et. al. (2000) consider that it is the search for knowledge and truths that make it possible to describe, explain and generalize the phenomena [that emerge in a particular context]" (p. 29).

The research project is the initial phase of the research; that is, it is a preview of what is intended to be done in greater length and depth (Icart et al., 2011; Ruíz-Olabuénaga, 2002), also called research protocol, which should include the background, establishment of the problem, research question, objectives and justification, description of the context where the study will be carried out, the schedule where the progress achieved will be reported (Babbie, 1999).

Preliminary project

However, there is another type of written work that does not imply a thesis's rigour but can be the basis for it: the preliminary project. In this sense, Schmelkes and Elizondo (2012) state that it is a plan of action related to a possible object of study and implies the commitment and seriousness of the person who carries it out, i.e., a structure prevails, with clear objectives and goals to follow, based on a defined topic (De Regil, et al., 2017). Thus, the format under which it should be done is: title, introduction, problem statement, objectives, justification, background, hypothesis, methodology, schedule, resources to be used, and references (ITSUF, 2010).

Dissertation

This type of manuscript aims for the student-subject to demonstrate what he/she knows about a specific topic according to the field of study in which he/she specializes. In this sense, it is similar to a monograph whose foundation lies in informative sources; that is, it is the product of a literary review of a lesser degree than a thesis, nor the rigour that characterizes it, since it does not establish a hypothesis that must be demonstrated. However, it must have a peculiar structure: title page, abstract, table of contents, introduction, theoretical framework, method, conclusions and references (UV, 2016; UDG, n/d), guided under a particular style, whether APA standard, Chicago style, MLA (UNAM, 2015).

Technology project

For a better understanding of it, it is convenient to briefly refer to the past since it was in the 1940s in New York, specifically in 1942, when Students Agencies Inc. was created to provide an adequate physical space for entrepreneurial students to start their businesses. Years later, the American Research Development was created by some students and the president of the Massachusetts Institute of Technology (Mayer and Jimenez, 2011). Subsequently, the company Silicon Valley in 1950 created the first industrial park to promote the transfer of technology developed by Stanford University, California, which was later replicated in several states of the American Union (Flores, 2012).

In the nineties, the first technology-based business incubator was created in Mexico in Ensenada with the participation of Nacional Financiera SA (NAFINSA) and the National Council of Science and Technology (CONACYT). The same year, the Center for Innovation Companies (CEMIT) was created in Morelos City and financed by the aforementioned organizations (Pérez, 2006). Already in 1992, CONACYT founded the Technology-Based Business Incubator Program (PIEBT) with the idea of promoting the creation of Technology-Based Business Incubators (IEBT), aimed at the feasibility and design stage of IEBTs (Flores, 2012), which was cancelled in 1997.

Thus, business incubators aim to generate companies under the tutelage, guidance, and advice of experts, providing the necessary financial support to achieve success and positioning in the market. However, they originally sought to generate technology; the range has been opened to companies of any kind as long as they are viable through an entrepreneurial project (Mayer and Jiménez, 2011; Rodríguez, 2013).

Therefore, it is necessary to specify what a technological project is. To begin with, a project aims to satisfy a need with the lowest possible risk of failure, optimizing the use of available human, environmental, financial or technical resources in a given area or sector (Elgani, n/d).

According to Mexican standard NMX-GT-002-IMNC-2008, “technological projects (...) are based on activities for the systematic application of knowledge (...) aimed at making a more efficient use of available resources, (...) fundamental to any innovation policy, both at the business and national levels” (p. vii). Regarding the former, they contribute to:

Place the organizations that undertake them in favourable situations to face challenges that arise in an increasingly competitive and globalized market. At the national level, (...) [promote the construction of a] solid base for the

strategic approach to technological activities at all [economic] levels" (p. vii).

According to the same standard, a protocol must be followed to carry out a technological project: cover page, description of the detected problem, description of the technological, economic, social, and ecological need to be solved; the justification that implies motivation, objectives, expected results and benefits to be achieved; feasibility analysis: background, study of the art regarding the technique incorporating results of studies carried out such as diagnosis of technological monitoring, applications and patents granted, research articles and publications, etcetera; determination of resources: human, financial, technical and material; planning of the sequence of the same; budget (cost analysis); measurement of progress and closure of the project (NMX-GT-002-IMNC-2008).

Integration project

As one more typology, there is this manuscript that arises from the evolution-development of the UTs, inciting the students' innovative/creative capacity by combining previously acquired knowledge.

Thus, the UT of Cancun defines it as:

A technical and/or scientific work of an analytical nature carried out in a specific area of knowledge, through which the student highlights the knowledge acquired in an integrated way throughout a given period of studies. This work aims to propose an innovative action in the professional field (p. 1).

Similarly, the UT of Chihuahua specifies that it is an activity, a project, a problem, a case, among others, that is designed so that the student demonstrates the practical application of what he or she has learned in one or more subjects or subjects (Torres et al., 2002, p. 257). For Tobón (2010), university training projects are a general strategy for training and evaluating learning competencies by solving problems concerning a particular context, whether personal, family, social, labor-professional, environmental-ecological, cultural, etc., through the direction, planning, action and presentation of the activities-products achieved in a period.

Academic paper.

In the words of Malham and Mobbs (2025), "one of the primary benefits of writing research papers is the opportunity it provides to teach research methodology. Students learn to formulate research questions, design studies, collect and analyze data, and interpret results" (p. 329). In other words, it is a kind of scholarly writing that exhibits an in-depth understanding and analysis of a selected subject. It entails compiling data and arranging different authors' interpretations to bolster the initial concept (Alexander College, 2024).

5. Methodology

The present study is based on a documentary approach, which Alfonso (1995) and Hurtado (2006) define as a scientific-systematic procedure of inquiry, collection, organization, analysis and interpretation of information (data) on a given topic. In addition, it has an exploratory scope since, in this case, it is a topic that has been little studied and serves to become familiar with it by investigating new problems (Hernández, Fernández and Baptista, 2014; Festinger and Katz, 1978).

It is important to note that this is the first stage of the research work. Thus, before carrying out more extensive work (regional, covering the four universities in the state of Tamaulipas), the starting point is the local level, i.e. the southern region, particularly the Technological University of Altamira.

The procedure involved selecting a representative sample of documents written by students from all degree courses to identify the predominant textual typologies. Thus, documentary typologies were compared using a matrix, identifying the common elements that integrate them. Besides, was implemented the comparative method, because according to Grosser (1973) in Nohlen (2020), allows:

To achieve other ends: a) using analogy starting from what is known to understand is hitherto unknown (called pedagogical comparison); b) referring to discoveries or what is special (heuristic comparison), and c) accentuating precisely the difference, it helps to systematize (systematic comparison), even when the characteristic of the object of study is not taken as singularity, but as specificity (p. 43).

After that, the findings are represented using graphs to identify the predominant textual typology. This determines the principal textual characterization, which must be considered in the educative model.

5.1 Materials

As stated above, the materials used were the students' written products, identifying whether or not they complied with the textual typology they were supposed to have followed for their development. To this end, a rubric was developed to specify compliance with the specific textual characterisations of the written document: thesis, dissertation, technological project, integrative project or academic article, adding the descriptors corresponding to each. The rubric was chosen because Torres and Perera (2010) state that it is 'an evaluation instrument based on a quantitative and/or qualitative scale associated with pre-established criteria that measure' certain aspects or characteristics (p. 142), in the form of pre-established levels or gradations (Cano, 2015). For their part, Mertler, 2001; Roblyer, and Wiencke (2003) define it as a versatile tool that can be used in many different ways, both to assess and to tutor the work done by students.

The work developed here was implemented considering six types of documents and their characteristic elements with two compliance levels. Thus:

Table 1. Punching table on typological correspondence in the final papers of stays.

Textual elements	Thesis		Dissertation		Technology project		Integrative project		Academic paper		Preliminary project	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Cover page with title, institution, place and date.												
Official documents: printing authorization, assignment of rights.												
Acknowledgements												
Index												
It presents: an introduction, describing the reason why the paper was developed; and explains each chapter, according to a topic, with a chapter structure: background, literature review, methodology, analysis and interpretation of results, conclusions and references.												
It presents only one topic to follow, literature review and from there proceeds to conclusions and references.												
It includes title, problem statement, justification, objectives, background, method to be followed, schedule, resources and references.												
It presents structure such as the description of the real context of the problem/situation and its complexity; possible solution; tasks and resources required (budget); progress schedules and their measurement; product/service design; progress evaluation; risk management, disclosure: project impact, IMPI.												
It is structured as follows: provisional title where students and advisor(s) appear, problem approach, objectives: general and specific, justification, theoretical framework, development methodology, progress schedule, costs, results, conclusion, and learning experience.												
It presents: title, abstract, keywords, abstract, keywords, introduction, literature review (using a style: APA, Chicago, MLA, etc.), discussion, conclusion and references.												
Complies with required characterization												

Source: Clemente y Rossette (2025).

The scope

The present research is exploratory (Arias, 2012) since there is not enough information on the topic discussed here. Therefore, the intention is to examine in depth the phenomenon detected and little studied by the scientific community. Such scope determines trends, areas, environments, and contexts but does not pose causal, correlational or explanatory hypotheses (Bulás et al., 2022; Álvarez, 2020;

Ramos, 2020; Hernández et al., 2016) but seeks to get as close as possible to the object of study to know it and, subsequently, to explain it.

Research technique.

Quantitative content analysis was used to allow the treatment of the data obtained (Hernández et al., 2016). This technique compares texts from different sources, analyses writings produced by the subjects of study, compares writers' styles, etc. López (2002) considers that some techniques focus on the external aspect (circumstances and context where it emerges) to identify the social, cultural, political, and religious elements where they arise; others focus on the internal aspect of the written documents, where the subjective perception and personal interpretation, intuition and interpretation of the researcher predominate.

On the other hand, quantitative and qualitative analysis are distinguished; the former focuses on the unit of meaning and significance of the text or documents analyzed, centred on the numerical and tabulation of the textual material, to compute frequencies and probabilities of appearance, establishing a relationship between the two; the latter punctuates the nuances of significance, complexity, depth of the written message, aligned to phenomenology, ethnomethodology or discourse analysis (Riba, 2017, p. 7). In the case of the present study, a quantitative content analysis was chosen.

In addition, another characteristic of content analysis is the review of the information that can be carried out from a chronological perspective: development of writing over time; geographical: textual development in different regions of the world; and methodological: applied to texts that are research products (theses, articles, reports, projects, etc.) (Reyes & Carmona, 2020).

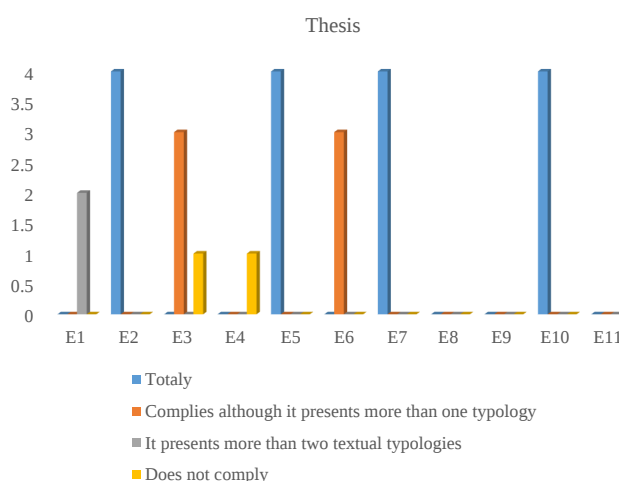
5.2 Sampling.

For the purposes intended here, a documentary sample of the work carried out by the students in question was considered. Within the piloting, the criterion used was to select the aforementioned documents from three generational cohorts, 2020-2022; this is a non-probabilistic sampling (Porras, 2016). A total of fourteen papers were chosen and in this sense the selection was by convenience, making it possible to select some cases (written documents) due to their accessibility and proximity to the researcher (Condori, 2020; Otzen and Manterola, 2017).

5.3 Analysis and interpretation of results.

The results obtained from this first review are shown below, according to the rubric for content analysis.

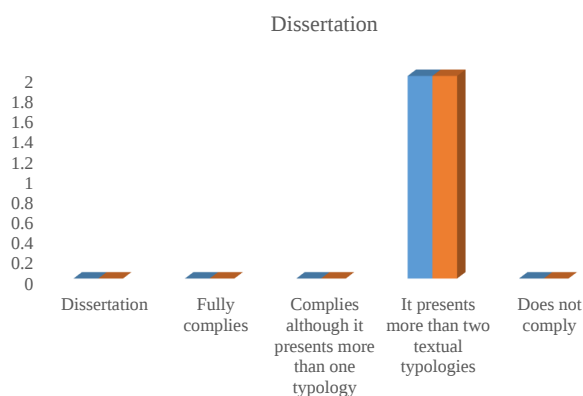
Figure 1. Related to the textual typology called thesis.



Source: Clemente y Rossette (2025).

In the present analysis, the graphical representation of the number of students who have managed to satisfy the criteria established for elaborating a thesis is addressed, as shown in Figure 1. Four of the students evaluated have achieved the complete characterization of the document, while two students have not achieved this task due to incorporating a different textual typology. On the other hand, one additional student, in addition to the aforementioned typology, has incorporated two more typologies, reflecting greater complexity in his analysis. Ultimately, it was determined that one student did not meet any of the required elements for the thesis. The subject did not fit the established parameters, indicating a possible discrepancy between expectations and perceived reality.

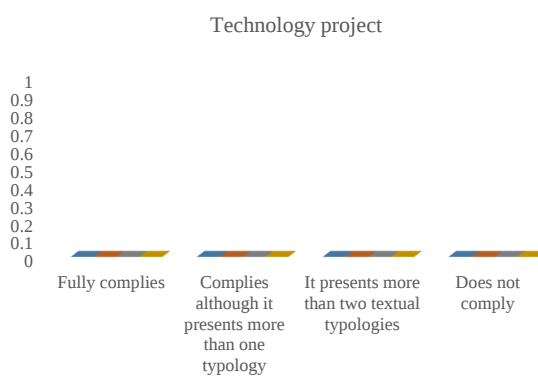
Figure 2. Related to the textual typology called Dissertation.



Source: Clemente y Rossette (2025).

Figure 2 shows two texts written by university students exhibit a typology similar to the dissertation; however, they incorporate other disparate typologies, i.e., they do not adhere to a specific structure.

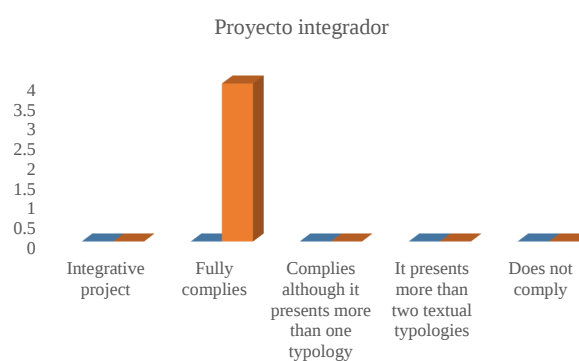
Figure 3. Related to Technology Project.



Source: Clemente y Rossette (2025).

Regarding the textual production of the typology mentioned in Figure 3, it was observed that no student carried it out.

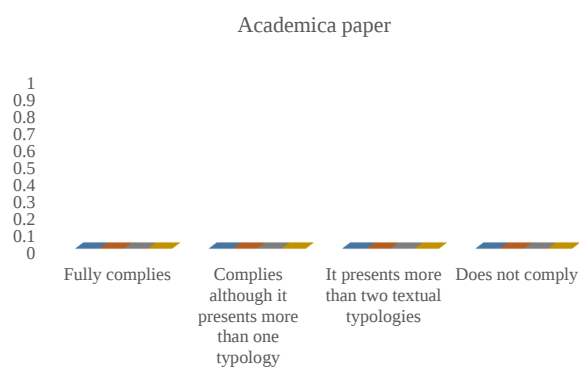
Figure 4. Related to Integrative Project.



Source: Clemente y Rossette (2025).

As can be seen in the analysis presented in Figure 4, only one student developed the manuscript, fulfilling the textual characteristics of an integrative project.

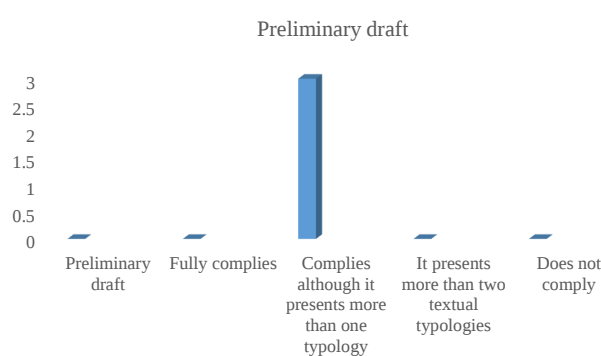
Figure 5. Related to academic paper.



Source: Clemente y Rossette (2025).

Regarding Figure 5, it can be seen that no student wrote the final document of the stay under the typology of an academic article.

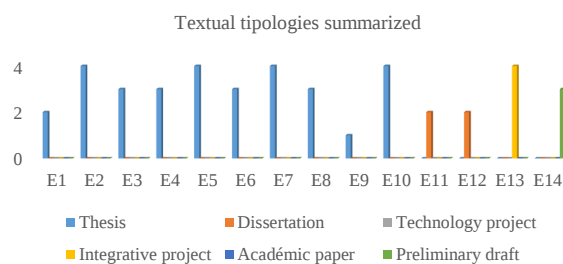
Figure 6. Related to preliminary draft.



Source: Clemente y Rossette (2025).

Regarding the textual typology shown in Figure 6, the student tried to elaborate a pre-project; however, by incorporating a divergent typology, he did not respect the characteristic structure of such a pre-project. As a result, the final document does not achieve the proposed objective.

Figure 7. Concentrate of the textual typologies analysed.



Source: Clemente y Rossette (2025).

According to Figure 7, eight undergraduate/engineering students wrote a thesis as their final project, two of them a dissertation, one an integrative project and one a pre-project. None of them wrote an academic article or a technological project. In percentage terms, 57.14% of the study subjects wrote a thesis, while 14.28% wrote a dissertation, 7.14% wrote an integrative project, and the remaining 7.14% wrote a preliminary project.

6. Discussion

The degree, in higher education institutions, is the last process to evaluate the general knowledge of their students, who must show their ability to apply the knowledge acquired during their training and in their practices, demonstrating that they have suitable professional criteria to perform a job (UNAM, 2011). To this end, the Autonomous University of Mexico (UNAM) has implemented various options to comply with the final requirement that closes the university transit in its various faculties: thesis, dissertation, professional work, graduate studies, high academic level, for teaching support activity, in short.

In the context of the UTs in Mexico, for the eleventh four-month period, the degree is officially awarded in the form of a thesis, although in the IA, there is an automatic degree, there are other options: by average, executive document, by professional experience and by postgraduate studies (Master's) (IA, 2025). In the particular case of the UT of Altamira, the elaboration of a research project and the delivery of a thesis containing the development of the internship project were established (UT Altamira, 2025).

Conclusions

As a result of this initial approach to the object of study, it is observed that the manuscripts written by the graduates do not exhibit a homogeneous textual typology (at least in the representative sample), nor do they conform to the established operational rules of the subsystem. Although the writing of manuscripts known as theses predominates, most of them do not present such a characterisation, which shows the absence of textual unity and typological syncretism.

This situation also occurs with other variants identified, such as the integrative project and the dissertation. The first was not explicitly stated by the CGUTyP, which leaves the field open to the versatility of the term and its actual application; the second type has its origins in other public and private universities but is alien to the educational model of the UT. Thus, of the documents reviewed, only one complied with the characteristics of an integrative project and that of a dissertation, although it presents certain characteristic elements, ultimately mixing other typologies.

It was clear that none of the manuscripts analysed complied with the structure of a technological project; nothing innovative was produced. As for the development of a pre-project, only one of the written works attempted to comply with this peculiarity, but it combined other typologies. As for the production of an academic article, none of the written products analysed complied with the structure, style and elements that comprise it.

Over time, the UT educational model underwent modifications to adapt it to contextual needs, such as the growth in enrollment and the demands of the labour

market, ultimately offering Bachelor's and Engineering degrees. To address the issue of the written product with which students complete their professional studies, the former typology of the project was not updated; instead, it was replaced by the thesis. In other words, the typology of yesteryear called 'project' was not updated but replaced by the thesis. The project was not updated, but the thesis replaced it. That is to say, none of the educational authorities, after the changes of the six-year term, specified how the project should be carried out by the identity of the educational model.

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