The Influence of Topic Familiarity on Students' Use of Critical Thinking Skills in Written Productions

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Table of contents

Index of Figures

Index of Tables

Abstract

There are several skills involved in the process of learning a language as it is Critical Thinking. The present thesis aims to analyse the role that Critical Thinking plays in 4th of ESO EFL students' written productions. Accordingly, Critical Thinking skills are to be analysed throughout the present thesis. Moreover, topic familiarity regarding EFL students is also discussed. The thesis aims thus, to analyse both Critical Thinking skills and its interrelationship with topic familiarity in EFL students' written productions. Through a qualitative research based on Grounded Theory, data from 4th of ESO students have been analysed considering both Critical Thinking skills and topic familiarity. The analysis aims to draw the links between Critical Thinking skills and topic familiarity in written productions.

Keywords: **Critical Thinking, skills, topic familiarity, writing performance, written production, EFL learning**

Abstract

En el procés d'aprenentatge d'una llengua, hi ha moltes habilitats i capacitats involucrades, tal i com en seria el pensament crític. La present tesi té com a objectiu l'anàlisi del paper que juga el pensament crític en les produccions escrites d'alumnes de 4t d'ESO de la matèria d'anglès. Corresponentment, en la present tesi s'analitzen les habilitats associades al pensament crític. A més a més, la present tesi fa incís en la familiaritat o coneixença del tema per part dels estudiants d'anglès com a llengua estrangera. Per tant, aquest treball de fi d'estudis pretén analitzar tan les habilitats de pensament crític així com la seva interrelació amb la coneixença de tema en les produccions escrites d'alumnes de 4t d'ESO. A través d'una recerca qualitativa basada en Grounded Theory, dades d'alumnes de 4t d'ESO han estat analitzades tot considerant les habilitats de pensament crític així com la familiaritat temàtica. Per tant, aquesta dissertació pretén dibuixar les traces d'unió entre el pensament crític i la familiaritat temàtica en les produccions escrites d'alumnes de 4t d'ESO.

Paraules clau: **Pensament crític, habilitats, familiaritat temàtica, rendiment escrit, producció escrita, aprenentatge de l'Anglès com a llengua estrangera**

1. Introduction

Learning a language and more specifically, a foreign language is a process which implies the usage of sets of skills in order to learn, understand and use the language. Correspondingly, the skills in use are highly relevant when it comes to the learning process of a foreign language as it would be English or French for ESO students in Catalonia. As observed in the practicum, the main skills addressed in Foreign Language lessons could be summed up in the CEFR labels "reception", "written production" and "spoken interaction and production"(Council of Europe, 2020). Nonetheless, there are other skills behind the process of learning a language such as Critical Thinking skills which are highly relevant relating the acquirement of a language. As stressed by Bagheri (2015), Critical Thinking exerts an influence on EFL learners concerning language learning strategies and thus, Critical Thinking conditions the success of the learning process of a foreign language.

This Master's dissertation attempts to provide an insight into Critical Thinking with regard to Foreign Language learning and more specifically, regarding the interrelationship between Critical Thinking, written productions and topic familiarity. Therefore, this thesis aims to investigate the existing relationship between 4th of ESO students' written productions and the use and expression of Critical Thinking. Moreover, the dissertation seeks focusing an aspect related to Critical Thinking which is the degree of familiarity with the topic proposed to students and its relationship with the outcomes provided by students. In order words, one of the key aspects in this dissertation is the analysis of the degree of familiarity and its impact on students' use of Critical Thinking skills in written tasks. More specifically, this dissertation focuses, concerning topic familiarity, on the differences between student-chosen topics and teacher-chosen topics regarding students' writing performance.

This dissertation attains to reach different objectives through the investigation of Critical Thinking skills and their relationship regarding language learning. Therefore, one of the objectives to be reached is to determine whether 4th of ESO students' use of Critical Thinking skills is influenced by topic familiarity. Correspondingly, the objective is to determine whether in written productions, there is evidence of Critical Thinking skills being conditioned by the degree of familiarity with the topic. As highlighted by Indah (2017) the type of topic given to students and students' familiarity with the topic selected are argued to condition students' use of Critical Thinking skills. Another objective to be

reached is to analyse to which extent does the degree of familiarity with the topic of the activities condition the written outcomes and the written performances of students. Thus, relating the previous objective, another objective to be attained is to analyse whether the type of topic selected in the activities performed by students implies a change in students' use of Critical Thinking skills and in their writing performance.

1.1 Research questions

In order for the investigation to accomplish its objectives and purposes, research questions have been designed to answer throughout the investigation process. The research questions designed to answer are the following:

1. To what extent does 4th of ESO students' topic familiarity condition the outcome and the use of Critical Thinking skills involved?
2. To what extent do both teacher-initiated topic and student-initiated topic influence students' writing performance?

In order for the study to be able to provide an answer to these research questions, this research has been designed to analyse both literature on the field and qualitative data from 4th of ESO students. Both from the data and from the literature behind the topic, answers and findings will be presented. Therefore, the findings aim to show the interrelationships between Critical Thinking skills, writing performance and topic familiarity in 4th of ESO students' work.

2. Theoretical Framework

Research has shed light on the role that Critical Thinking (CT) plays on different fields. Accordingly, several definitions to the same concept have emerged in order to clearly define what CT is. Michael Scriven and Richard Paul suggest that CT is a discipline involving several subprocesses as it would be analysis or synthesis and that has its basis on intellectual values (2007). The focus in this definition is on two distinct ideas, subprocesses and intellectual values. Therefore, the definition by Scriven and Paul, stresses the different subprocesses intervening in the process of CT. Moreover, the stress is also on the intellectual values[1] and their transcendence in their application. Along with Scriven and Paul's definition, Hadley and Boon (2023) stress the importance of the skills

[1] The intellectual values or intellectual standards are as stated by Linda Elder and Richard Paul: "standards which must be applied to thinking whenever one is interested in checking the quality of reasoning about a problem, issue, or situation"(Elder & Paul, 2007, p.10).

involved in CT. Nonetheless, the focus of the definition provided by Hadley and Boon highlights the teachability of the CT skill. Thus, it is suggested the interrelationship between the CT skill and a learning process of this skill. The idea of CT being teachable is also supported by Sandhya Rao Mehta and Rahma Al-Mahroqui that suggest the teachability factor of Critical Thinking with regard to written productions (Mehta & Al-Mahrooqi, 2015). Furthermore, Hadley and Boon (2023) highlight the relevance of evaluation and assessment of statements, ideas, or positions. Thus, CT involves both sides of the definitions provided by scholars. One the one hand, CT is a skill that implies the application of subprocesses such as the analysis, the synthesis, the conceptualization or the assessment and it is also a skill that is teachable and that requires from the individual to analyse and question statements, ideas, notions and to respond and argue statements, opinions, and issues as well. Therefore, CT implies the application of subskills based on the intellectual values and results in a teachable skill stressing the organisation and assessment of statements, proposals in a logical and sceptical way.

Critical Thinking exerts, as expressed by Scriven and Paul, an influence on other disciplines and domains (Scriven & Paul, 2007). Thus, education and the learning process are two domains that are directly related to CT skills. Several scholars have drawn the interrelationship between CT skills and education and the key role that CT plays when it comes to education. Paul and Elder (2005) argue that, regarding education, CT can bring tools to internalize content and to analyse and assess both the content and the process of internalization. Moreover, the difference existing between rote memorization and internalization through CT is stressed. Thus, the stress is on rote memory not allowing students to distinguish, compare or analyse concepts and ideas interrelated whereas CT allows students to perform subprocesses in order to internalize and assess content, ideas and concepts (Paul & Elder, 2005). Therefore, CT is especially relevant regarding the learning process since fostering and encouraging students to use and to improve CT skills is highly relevant throughout the learning process. Apart from the processes and subprocesses involved in CT, another aspect that is relevant considering is the need for CT in education. More specifically, CT is present in the needed 4C skills in education in the 21st century (Partnership For 21st Century Skills, 2009). Relating this need for CT in our century, as stressed by Beyth et al.: “Thinking skills are necessary tools in a society characterized by rapid change, many alternatives of actions, and numerous individual and collective choices and decisions”(Beyth-Marom et al., 1987, p.216). Therefore, apart from being an essential skill for education, CT is an essential skill that contributes to the

adaptation of students to the current society in which constant changes and decisions are recurrent. This notion is present in the Catalan curriculum for secondary education in which the importance of giving students the key to overcome the challenges proposed by the 21st century is explicitly expressed (Departament d'Educació, 2022, p.29). Thus, thinking skills are especially relevant in the current society since it is required from individuals to think critically and to overcome difficulties as the ones exposed in the curriculum. Thinking skills and more specifically, CT skills are, therefore, relevant for education.

Concerning education and the process of learning, the learner applies different strategies in order to acquire, perform and understand different topics on different domains and at different levels. Thus, as remarked by Karakoç, students when thinking critically are invited to make analysis and synthesis, to question the different hypotheses and to develop new ones as well as to check their validity and more importantly, students are encouraged to think for themselves (Karakoç, 2016, p.82). Rahmat (2020) supports the notion of students being encouraged to think critically and to reflect by themselves. Nonetheless, another aspect is introduced, which is students reflecting at the end of the learning process (Rahmat, 2020, p.23). Thus, CT is involved throughout all the process of learning stressing the final reflections on the content learnt or worked on.

As far as language learning is concerned, research has shown that there is a relationship between CT skills and language learning. Thus, scholars such as Rohmani Indah highlight the notion that Critical Thinking skills are directly connected to language skills (Indah, 2017). Accordingly, there is a relationship between language and thinking skills and both skills are interdependent. Thus, it is through the expression in written or spoken productions that thinking is expressed as highlighted by Elder and Paul (Elder & Paul, 2007). Thus, it is through expression and production that CT is expressed. Concerning expression, research has illustrated the connections established between writing and thinking. As stressed by Linda Flower and John R. Hayes, the process of writing is a complex process implying the activation of different thinking processes that are coordinated when crafting a text (Flower & Hayes, 1981, p.366). Moreover, Flower and Hayes specify the stages of writing, the writing subprocesses and the three major elements involved in writing (see Figure 1).

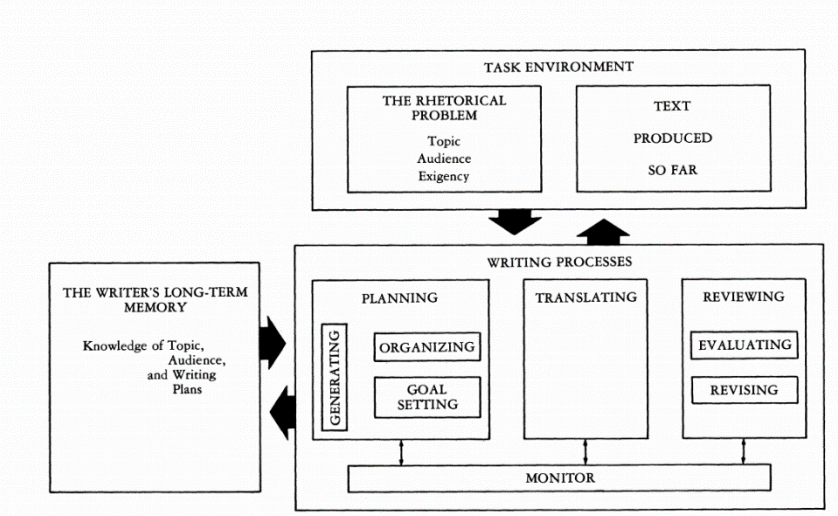

Figure 1 Structure model of writing (Flower & Hayes, 1981, p.370)

The writing process and subprocesses as well as the elements involved are part of a wide engine which requires from the use of several techniques related to CT. Therefore, writing is a complex process involving several stages. As highlighted by Rahmat (2019), the writer when undergoing the process of creating a written piece is exposed to three major difficulties or problems, linguistic, physiological, and cognitive difficulties. Thus, the writer may encounter difficulties concerning the lexis, grammar and syntax but also concerning, the physical interface and the formatting of the text per se. Thus, research illustrates the difficulty residing in the writing process as well as the importance of the writing performance and the interrelationship existing between CT and writing. Furthermore, scholars consider argumentative writing to be the most complex writing mode involving EFL learners' CT skills (Indah, 2017). Research stresses both the difficulty inherent in the writing process as well as the writing mode that best demonstrates the writer's CT skills. In other words, writing as well as CT are two complex processes implying the application of subprocesses and both writing, and CT are interconnected.

The process of writing is a wide process linking several subprocesses and stages. Therefore, it implies the coordination of several skills intervening in the process as it is the CT skill. Thus, CT exerts a direct influence on the process of writing and on the outcome of the process. In other words, the writing performance is directly related to the skills in use. Moreover, scholars have stressed the influence not only exerted by CT but also by the topic selected and the learners' familiarity with the topic. Topic familiarity, as stressed by Ovilia, is "knowledge on particular topics"(Ovilia, 2019, p.182). Thus, with regard to written productions, topic familiarity refers to the knowledge that the writer has

on the topic proposed. Concerning topic proposal, research highlights the distinction between two types of topics, student-initiated topics, and teacher-initiated topics (Indah, 2017). The distinction between both topics depends on the person in charge of deciding the main topic that is to be addressed in the written production. Topic selection is relevant considering since a higher or a lower degree of familiarity with the topic may condition the final written outcome. Regarding Second Language writing, topic familiarity might be a source of pressure for learners performing a written activity since a "slower processing speed" might take place when writing (Li & Yu, 2024, p.350). Thus, if considering the structure model of writing provided by Flower and Hayes (1981), the writing process when conditioned by topic familiarity might be affected in the three subprocesses, planning, translating, and reviewing since the topic selected may be a topic from the learners' domain and thus, having the learner use a wide range of information and lexis on the field or the other way around, having the learner having trouble identifying the topic and the elements linking the topic as it would be the vocabulary from the field. Thus, topic selection may influence and directly affect the three subprocesses of writing since difficulties may emerge in the three distinct processes. According to Flower and Hayes (1981), when the topic being unfamiliar for the writer the capacity of evaluating, consolidating and regenerating are highly relevant to the writing process. Apart from identifying the possible sources of difficulty caused by topic familiarity, research also stresses the interrelationships existing between CT, topic familiarity and writing performance. Accordingly, both CT skills and topic familiarity are conditioning factors for EFL writers'/learners' writing performances (Jaijon, 2021). Therefore, the three elements intervening in written expression, which have stressed to be CT, internal writing subprocesses and topic familiarity, are directly interconnected and directly condition the outcome in the writing process and more specifically, when considering Second language learners. In other words, when considering the writing process and the different subprocesses involved as it would be planning, it is also relevant to consider the interrelationships between the writing process, CT and topic familiarity since the three elements result in key factors conditioning the writing outcome. Focusing on EFL writing, it is worth noting that topic may directly influence the writing process and therefore, the elements linked to the writing process which are CT skills in use and writing performance of EFL learners.

3. Data Collection Process

3.1 Context

The data required for this study have been collected during the practicum which took place from the 11th of March until the 3rd of May. The placement was done in a public high school from the Catalan educational system. The centre is located in a little village in the Vallès Oriental. The centre in which the data have been gathered is a large high school which provides obligatory secondary education (ESO), vocational training on different fields (Administració, Mecatrònica, Manteniment Electromecànic, Operacions de Laboratori, Química Industrial), PFI programs and five types of baccalaureates (humanístic, científic, tecnològic, social, artístic). The school has specific programs in order to foster students' capacities in languages by providing students with the opportunity of participating in language exchanges or in different activities such as language workshops. It is a centre which is defined, as all the ones in the same village, as a "matricula viva[2]" centre which welcomes students throughout the whole year. Therefore, it is a large high school that yearly welcomes around 900 students who study in the different formation options provided by the centre. In addition, the team that conforms the high school escalates to around a hundred of education professionals.

3.2 Data collection

The data required to perform this dissertation have been collected during the placement period which took place from the 11th of March until the 3rd of May in the previously described high school. The collecting process has been done considering the goal of the dissertation and therefore, the collection has been done at three different stages of the Learning Situation performed by 4th of ESO students. During the first stage, which were the introductory sessions of the Learning Situation, students' curriculums[3] of eight different athletes (teacher-chosen) were collected. In the middle of the Learning Situation, when students had started working on journalism as well as on athletes' and sports' vocabulary, both questions destined to athletes as well as a justification for athletes' reactions[4] were collected. At the end of the unit, students were requested to write an

[2] A "matrícula viva" centre in Catalonia is a centre which welcomes students throughout the year and thus, the inscriptions do not close throughout the year.
[3] When referring to curriculum task, it makes reference to an athlete's presentation whose format was a curriculum vitae.
[4] Students were shown a video comprehension in which athletes reacted towards different interview questions.

interview including a brief presentation of an athlete of their own choice, the questions that they would ask to the athlete at the end of a competition and a justification for their choice of questions. The interviews from students were also collected. As can be observed in Figure 2, the data have been collected in three different stages. Therefore, the data collection has been done considering the timing at which the activities were performed by students relating to the topic familiarity and the use of Critical Thinking skills.

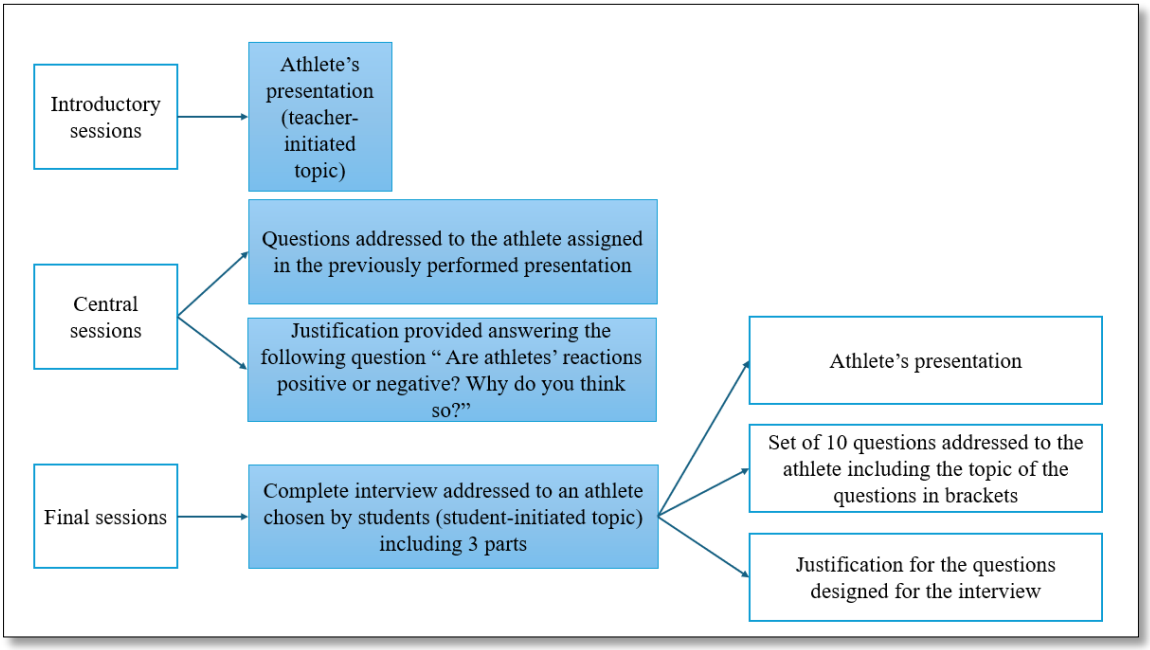

Figure 2 Summary of the data collected and the stage at which the data have been collected

The data collected can be sub-arranged in distinct categories concerning the goal of the task performed by students. Thus, the athlete's presentation as well as the presentation part on the interview have the same focus, to present a person providing the key information in order to acknowledge that person. The task targeting the questions which would be addressed to the athlete presented in the first task coincides with the question part from the interview. Thus, in both tasks students are prompted to create a set of questions that would be asked to an athlete, the difference being that the first set of questions is to be destined to the teacher-proposed athlete whereas the second set of questions is destined to the student-proposed athlete. The third pair of activities are the justifications. The first justification had as a goal to make students reflect on a visual support, a video on sports' interviews[5]. Accordingly, the justification, that was to be

[5] The video created by the organisation CoverTheAthlete (2015) introduced a set of interviews in which the questions were inappropriate, and students had to reflect and argue on the type of reactions of athletes and identifying whether the reactions were positive or negative and the reasons for their position.

provided in the final interview, was for students to justify their selection of questions and the topics chosen. Therefore, both activities had as a goal for students to argue on a specific topic. Apart from designing a procedure in order to collect and arrange the data, a methodological tool based on *The Miniature Guide to Critical Thinking Concepts and Tools* provided by Linda Elder and Richard Paul(2007) has been created in order to analyse the data collected. The creation and use of this tool in order to analyse Critical Thinking in students' written performance is based on the methodological approach used by Dong (2015). The grid created *ad hoc* (see Appendix A: Critical Thinking Assessment Grid) for this research focuses on the written production and the expression of CT through the "intellectual standards" provided by Linda Elder and Richard Paul (2007). The data selected composes a corpus of twenty-two documents that are to be analysed through the designed methodological tool as well as through the methodological approach selected for this study.

3.3 Participants and data selection

As a result of an internship in the previously described high school, 4th of ESO students were introduced to a learning situation relating sports, journalism, and the gender inequality existing behind both worlds. The group to which the unit was introduced was a group of 25 students which have a level in between B1 and B2. The data selected is a sample of students' work since due to time constraints, all the data collected, which escalated to 125 documents, could not be analysed in detail. In order to carefully select the participants of the study, a sampling procedure has been carried out. The first step of the sampling was detecting from the total of 25 students that were in the classroom, how many of them submitted the total of 5 documents. Fifteen students out of the twenty-five in the classroom submitted the sets of tasks, since there were workshops and excursions that impeded some of them to do some of the activities required. This first sampling leaves the researcher with a set of fifteen sets of documents including five documents per student. In order to reduce the number of documents to be carefully analysed, another selection was done considering two aspects. The first aspect related to the level of the English of students. Accordingly, the group in which the learning situation was introduced was a group that according to *Common European Framework of Reference,* has between B1 and B2 level of English. The second aspect taken into consideration is the initial activity concerning question asking to athletes. More specifically, this second aspect aimed to classify students' work according to the activity relating interview questions and two distinct groups of data have been detected. The first group of data relates questions

that target personal information unrelated to sports or to a competition and the second group of data relates questions related to a competition or a specific sports' feature as it would be training. The selection of this specific feature was for the researcher to see the initial stage at which students were and therefore, to see whether this initial stage changed throughout the unit. As can be observed in Figure 3, a chart was built in order to determine which were the possible patterns in students' data. Accordingly, there are four distinct patterns which are, the English level being B1 and including personal questions, the English level being B1 and including sport related questions, the English level being B2 and the questions being personal and not related to sports and lastly, the English level being B2 and the questions being sport related.

Students	Level of English according to the CEFR	Initial questions focusing on personal aspects
S1	B1	No
S2	B1	Yes
S3	B1	No
S4	B1	Yes
S5	B1	No
S6	B2	No
S7	B2	No
S8	B1	Yes
S9	B2	No
S10	B1	Yes
S11	B1	No
S12	B2	No
S13	B1	Yes
S14	B2	Yes
S15	B2	Yes

Figure 3 Table illustrating the sampling of data

As shown in Figure 3, there are four different patterns. A representative of each pattern has been selected in order for the study to represent the analysed 4th of ESO group. The sample selected are thus, four students' work throughout the unit and the sample has been chosen in order to represent the four possible patterns in students' work.

3.4 Ethical procedures

The present thesis, in order to preserve both the students and the school in which the data have been collected, does not provide the school's name nor the names of the students who have provided the needed data to perform this qualitative research. Moreover, in

order to guarantee the permission from the school to gather data, a permission was signed by the school representatives and students were informed of the gathering of data procedure so that they were aware of their participation in the study.

3.5 Research limitations

The research has been conducted by analysing students' written productions and tasks. Due to time constraints, the research provides the analysis of a sample of written productions that correspond to the work done by four students from 4th of ESO. If time were not a limitation, a wider analysis of students' written productions would have been provided in order to determine whether the results differ or are in tune with the data analysed.

4. Methodology

The approach selected in order to analyse the data gathered from students is qualitative research following the methodological approach introduced by Glaser and Strauss in 1967 and then reviewed by them in 1999, the Grounded Theory. The theory stresses the relevance of data when theorizing. As defined by Glaser and Strauss, Grounded Theory is "the discovery of theory from data" (Glaser & Strauss, 2017, p.1). Therefore, this methodological approach selected provides an analysis of data from which theory emerges and thus, theory departs from the analysis. Furthermore, the comparison and the comparative analysis is key in Grounded Theory and therefore, when analysing sets of qualitative data, comparisons can shed light on different aspects when refining the theory emerging from data. Moreover, in order to specifically analyse the data selected for the study, the analysing steps provided by Anselm L. Strauss and Juliet M. Corbin (1998) have been selected. Thus, three main steps have been followed in order to code the sets of data collected, which are open coding, axial coding and selective coding (see Figure 4).

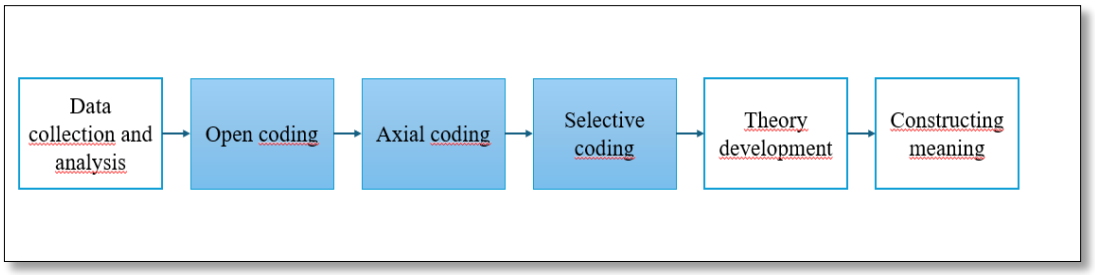

Figure 4 Process of a Qualitative Research Adaptation from: Williams & Moser (2019)

The process of building qualitative research starts thus, through the collection of data and through the first stage of coding which is open coding. As defined by Strauss and Corbin open coding is "the analytic process through which concepts are identified and their properties and dimensions are discovered in data" (Strauss & Corbin, 1998, p. 101). Thus, the sets of data are to be read and analysed focusing on the different concepts and properties that can be identified. Once main categories and properties of data have been identified the next step is to perform axial coding which as stressed by Strauss and Corbin is "the process of relating categories and subcategories"(Strauss & Corbin, 1998, p.123). Therefore, once in the first step the categories and dimensions have been established, then the bigger categories and their inner subcategories are to be associated in order to build connections between conceptualizations and phenomena encountered in data. In order to close the coding process, the final stage of coding consists of the integration of theory into the coding and analysis (Strauss & Corbin, 1998, p.143). The coding process ends thus, with the integration and refinement of the theory extracted from the coding. Grounded Theory and the coding process provided by Strauss and Corbin have been applied to the present dissertation. Accordingly, the data collected and selected have been analysed qualitatively through open and axial coding. Thus, the different sets of data have been coded in both open and axial coding and through comparison of sets of data a theoretical refinement has been done. Thus, the data specifically selected, which composes a corpus of twenty documents, have been analysed following the methodological approach based on Grounded Theory. Concerning the data selected, the analysis has been done considering the activities both individually and with the activity with which has been paired considering both the type of topic being student and teacher initiated as well as the goal of the activity. Thus, as can be seen in Figure 5, the activities have been coded and comparatively analysed considering the goal of the activity and

having two activities of the same kind one being with a teacher-initiated topic and one being with a student-initiated topic.

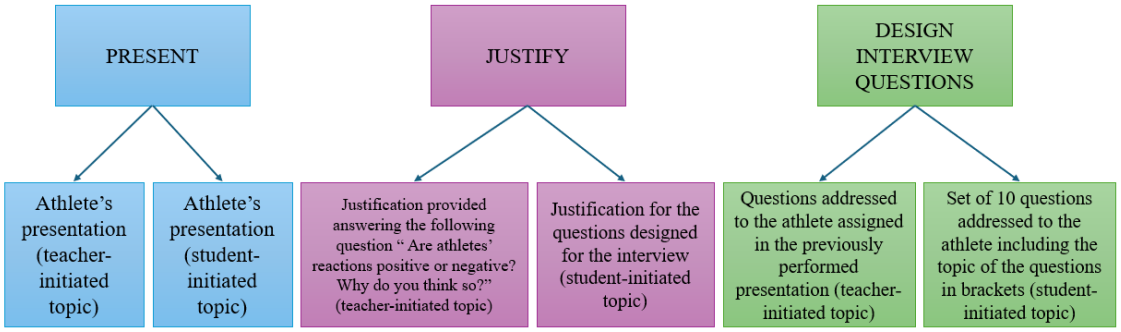

Figure 5 Tasks pairing considering the type of topic and the goal of the activity

5. Analysis

The analysis of data has been done considering both purposes of the research which are Critical Thinking skills and topic familiarity. The analysis of the data gathered and classified has been carried out by implementing coding to the set of data. Thus, the coding has been done by pairs of data in order for the researcher to observe whether differences or similarities occurred in both open and axial coding for both tasks. Therefore, three types of tasks were analysed which were a presentation, question writing, and a justification.

Focusing on the first pair of activities which target data compilation and explanation of key aspects relating an athlete, it is observed how students structure the information in the first activity where the athlete has been assigned to them. Accordingly, there are eight key concepts present in students' curriculums of athletes. It can be observed after analysing the sets of documents that students present the information in different blocks arranged by topics. When providing the open coding for this specific activity, eight different codes emerge (see Figure 6). The codes being named "name", "origin", "age", "awards", "prizes", "nominations", "teams" and "status" categorize the main elements present in athletes' curriculums performed by students. The information presented is organized and it is observable how students arrange the information in themes which are interrelated as it would be name and age. Despite presenting the different key aspects which students believe to be key in order to know a person, in this case a

professional athlete, students fail to present consistent and true information since there are many parts that present important inconsistencies as it would be changing the status or to confuse teams in which the athlete has competed. Moreover, it is worth noting that the inconsistencies present in students' written work relate the professional career of the athlete. When building the second part of coding, axial coding, bigger categories reuniting the categories from open coding emerge. Thus, as observable in Figure 6, there are three main categories reuniting the smaller ones. The first category emerging is "specific personal information" which links to name, age and origin which show students' perception on key personal information. The second category emerging is "achievements". Thus, the researcher observes how in an athlete's presentation made by students, the awards, prizes, and nominations are highly relevant in order to present a professional sportsperson. Thus, this section in students' pieces of work is extensive since students value the prizes as key information in order to know a person who is professional in sports. The third category emerging in axial coding is "professional career" which covers both the trajectory of the sportsperson as well as the status specifying whether the athlete is still active. This specific category, reuniting both teams and status, is the part in open coding in which inconsistencies are present. Through text analysis, it is observable that the information relating an athlete's career presents mistakes relating the truth of the information presented since there are confusions on topics that may escape students' domain as it would be specific international leagues of sports which are not present in our society or aspects relating the retirement of a sportsperson. In general terms, it is observable that in the first task relating the presentation of an athlete, who has been assigned by the teacher, students select different key information and organise it according to main topics and themes providing a general depiction of the athlete without stressing specific details on the athlete's career.

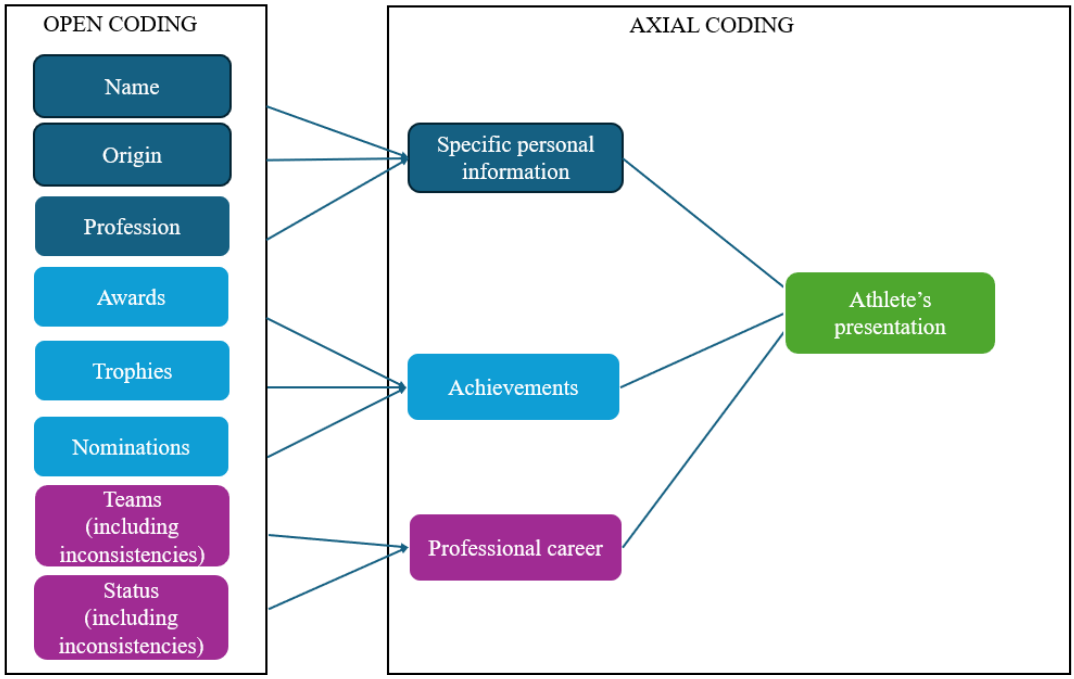

Figure 6 Open and axial coding of the first activity

The open and axial coding suggest to the researcher that there are several inner categories which are frequent in students' work in order to accurately present a sports' figure. Nonetheless, some aspects present inconsistencies or are presented in a general form. When analysing the pairing task consisting of students' presentation of athletes in their self-crafted interview, different aspects emerge in the analysis of data. The written productions analysed in the sample make it observable the change occurred in the second task. In this specific task, eight categories emerge from open coding named "full name and nicknames", "complete origin information", "status", "awards", "trophies", "teams", "profession" and "accurate details and anecdotes on the athlete's professional career" (see Figure 7). The written presentations of student-chosen athletes present a slightly different coding comparing it to the teacher-chosen athletes' presentations. The new codes emerging stress the lack of inconsistency in the productions, what is to say that the information is trustworthy and more accurate. Moreover, the category labelled "accurate details and anecdotes on the athlete's professional career" make it observable the previous knowledge on the person being presented. Thus, learners provide a wider insight into the athlete per se since nicknames, anecdotes and professional details are introduced. When performing the axial coding, the new category emerging is noticeable. This new category collecting both "accurate details and anecdotes on the athlete's professional career" and "teams" stresses the presence of a wide range of details in the career. Therefore, when

comparing both open coding and axial coding, it is observable to the researcher the shift present in terms of the weight attached to each key element in an athlete's presentation. In other words, on the teacher-assigned athlete presentation, much importance is given to prizes, awards and nominations in order to accurately present a sports' figure. Nonetheless, on the student-chosen athlete presentation, much relevance is given to the career per se by providing a wider view on the athlete. Furthermore, specific information in the form of anecdotal information, details, or detailed personal information such as nicknames are introduced.

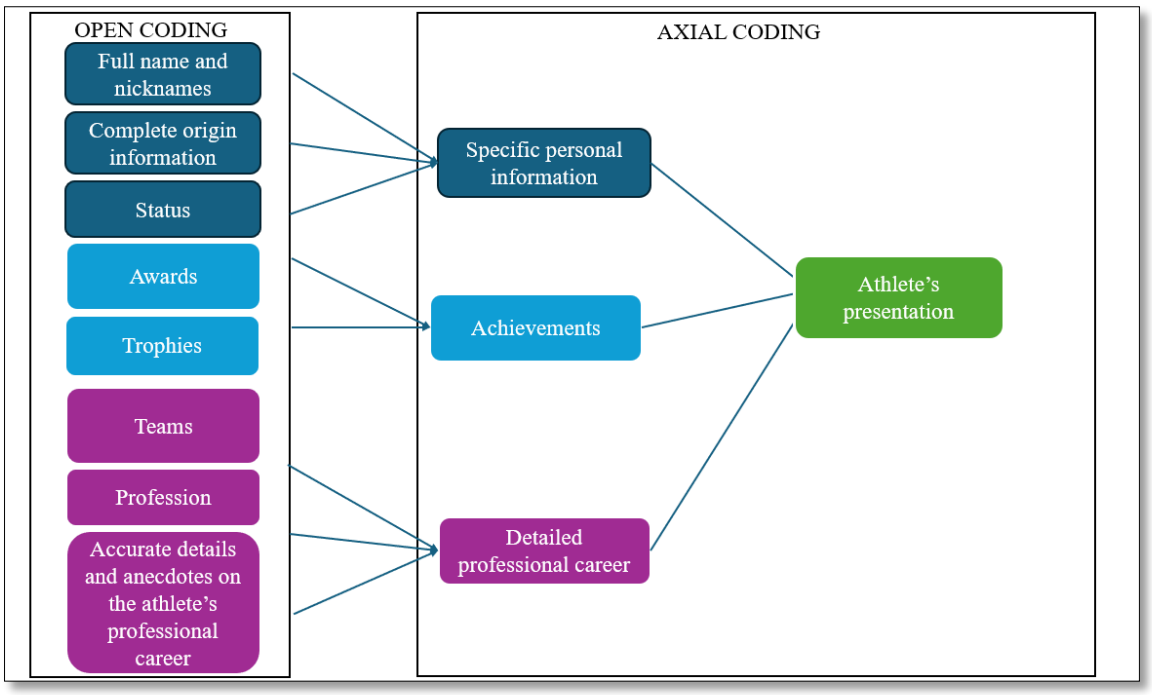

Figure 7 Open and axial coding for the second athlete's presentation (student-chosen athlete)

The presentation of an athlete and the comparison between both tasks, the one performed at the beginning and the one performed at the end of the learning situation show distinct differences between the coding resulting from the analysis of data.

The second pair of tasks concern question design. Correspondingly, the goal of designing questions was for students to reflect on the types of questions, the content involved in them and to craft their own questions that would be addressed to a specific athlete. Apart from considering the type, format and content of questions, students were asked to reflect on the topics present in each question created so that to establish a label on each question indicating the topic of them. Considering the first activity of the pair, students were required to create a set of three different questions that they would ask to

the athlete that they had presented in the first introductory presentation. Therefore, students had to craft questions bearing in mind the person who was to be interviewed. After reading and analysing the sets of questions, it is observable that there are question patterns that are frequent within students' work as well as question topics that result in common in different students' work. Correspondingly, a total of nine different codes emerge in the first stage of coding (see Figure 8Figure 7). Thus, the codes encapsulate "athlete's expression of feelings relating awards", "athlete's explanation of private information", "athlete's justification of personal decisions", "athlete's reflection on their professional career", "athlete's professional career", "feelings relating awards", "private life and personal decisions", "evidence based on facts" and "evidence based on beliefs". Thus, the open coding encapsulates the main aspects extracted from students' written productions. Accordingly, there is a tendency in including questions and inner aspects relating the private life of the athlete instead of the professional life. Moreover, when reanalysing the data focusing on axial coding, it is observable that there are three main perspectives considering question asking, which are the objectives to be reached when the question is being answered, the question focus and the basis of the question. Concerning this last element, there are two types of data included in the sets of questions designed by students, the first one is the evidence being based on facts such as when students ask about a specific moment in which the athlete won a specific trophy whereas the second type of data is based on students' hypotheses on the athlete's life without having facts or evidence supporting their questions. Thus, there is a distinction between questions including evidence based on facts and evidence based on hypotheses.

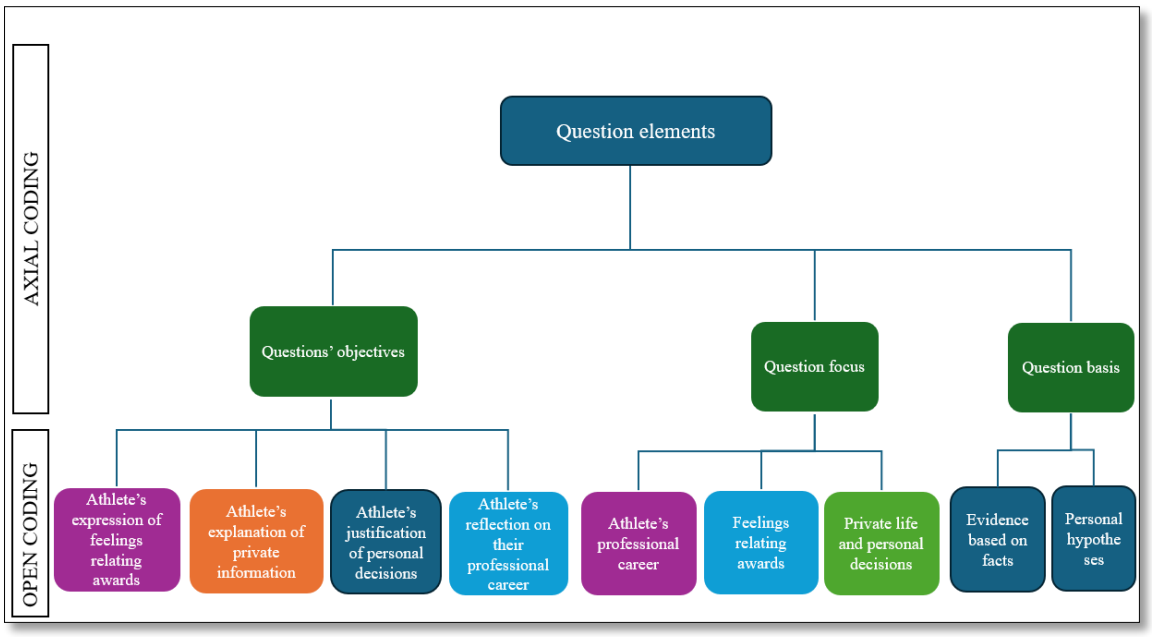

Figure 8 Open and axial coding for task 2

The open and axial coding have provided an insight into the inner codes extracted from the analysis of sets of questions designed by 4th of ESO students. Correspondingly, there are three major categories encapsulating the objectives, the focus, and the basis of questions. Considering the pairing task, which is the interview section which presents the questions addressed to student-chosen athletes, the analysis results in a different coding. Accordingly, eight different codes emerge from open coding analysis. The codes named "athlete's set of expectations concerning sports' career", "athlete's explanation of details relating athlete's success", "athlete's expression of feelings relating a specific sport feature", "athlete's reflection and self-evaluation on their professional career", "athlete's professional career", "feelings relating performance", "opinion on specific sports' features" and "evidence based on facts" emerge in open coding (see Figure 9). Accordingly, when comparing the open coding from the previous activity (see Figure 8) and this activity's coding (see Figure 9), it is observable that there is a shift concerning the content extracted from questions. Correspondingly, the reading provides an insight into the differences existing between both sets of questions. Therefore, the first set of questions provides specific topics and content focused on the private life of the person interviewed whereas the second set of questions targets inner topics related to the professional career of a sportsperson and aspects related as would be awards, performances, etc. Moreover, there is also a shift on the basis of questions, since the first set of questions compiles information based on students' beliefs and hypotheses whereas

the second set of data illustrates the questions being based on facts and not on hypotheses. When performing the axial coding for the second set of data, it is distinguishable that the categories are somewhat similar. Nonetheless, the difference resides in the codes residing in each category and the approach given to each category. Thus, the question objectives are the ones that students are to fulfil when the questions are answered, and the questions focus presents distinct codes expressing the different topics addressed in each question.

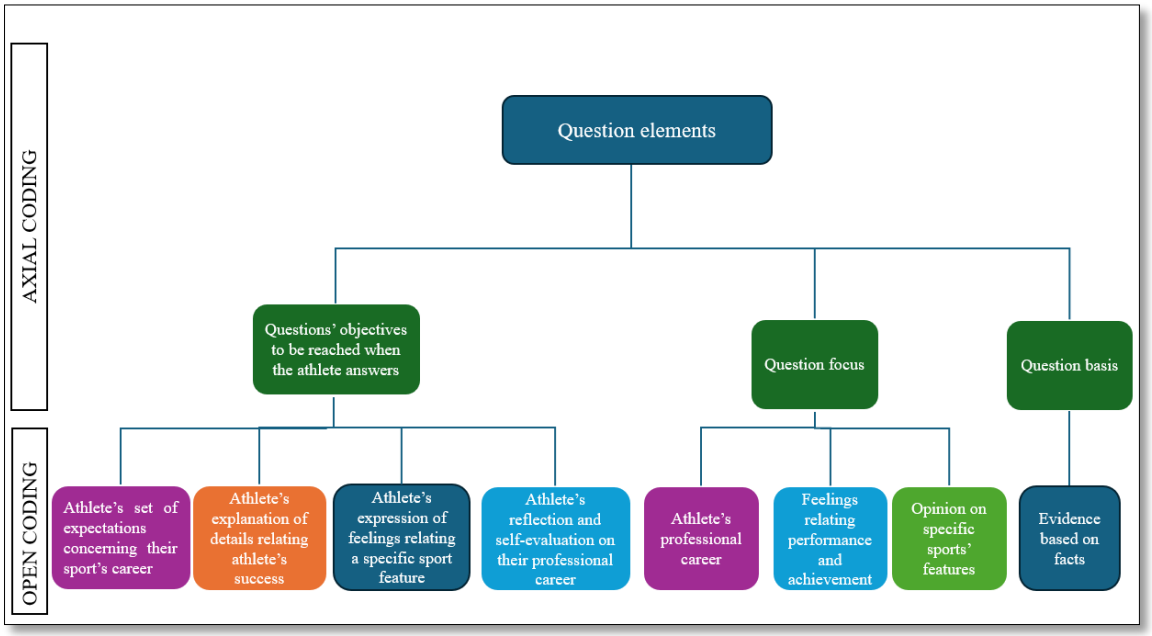

Figure 9 Open coding and axial coding for the set of interview questions

Concerning the design of questions, remarkable shifts took place in students' written productions. Thus, there is a notable change in questions' objectives, the focus as well as on the basis. Accordingly, in the first set of questions analysed, the focus was on the person than rather on the professional athlete. Therefore, the coding provided showed this specific feature of questions. Moreover, the questions instead of being based on facts based on their previous presentation, were based on personal hypotheses on the athletes' lives and focused on the athlete's private life. On the contrary, the second set of data analysed and coded saw an improvement in question objectives, basis, and focus. Thus, it is noticeable that between both coding there is a relevant change being observed in data since the second set of data seems to be expressing more objectivity in data since the objectives and focus are more sport-centred and the basis of the questions concern facts and evidence.

The last pair of sets of data focuses on the justification of two distinct aspects relating interviews. Correspondingly, the first task required from students a justification in which learners had to argue whether the reactions shown in a video should be considered positive or negatives and the reasons to support one position or the other. The analysis of the written justifications provided by students makes it observable to the researcher the fact that there are resembling elements within students' argumentation and justification of a position adopted. Therefore, when analysing through the open coding process, it is observable that a set of six different codes emerge from data (see Figure 10). The first code emerging being "statements based on beliefs" stresses the fact that when providing a justification for a position adopted, students rely on their own beliefs and hypotheses, but as labelled in the second code "based on evidence", students do also use evidence in order to support their arguments. Another code emerging in the open coding process is "causal relationships". Learners link within their justifications sets of causal relationships expressed by the connector "because" in order to directly stress the cause behind the problem or their opinion. Another aspect, which is worth considering for the researcher, is the presence of author's feelings towards the situation to which the learners have been exposed while watching the video. Therefore, the students express in their justification sets of feelings considering the situation and also stressing the empathy felt towards the protagonists of the video comprehension. When performed the axial coding, the big categories emerge from the open coding. Correspondingly, there are four main categories reuniting the open codes emerging from data. The axial coding provides a wide perspective on students' processes when providing a justification for a position adopted.

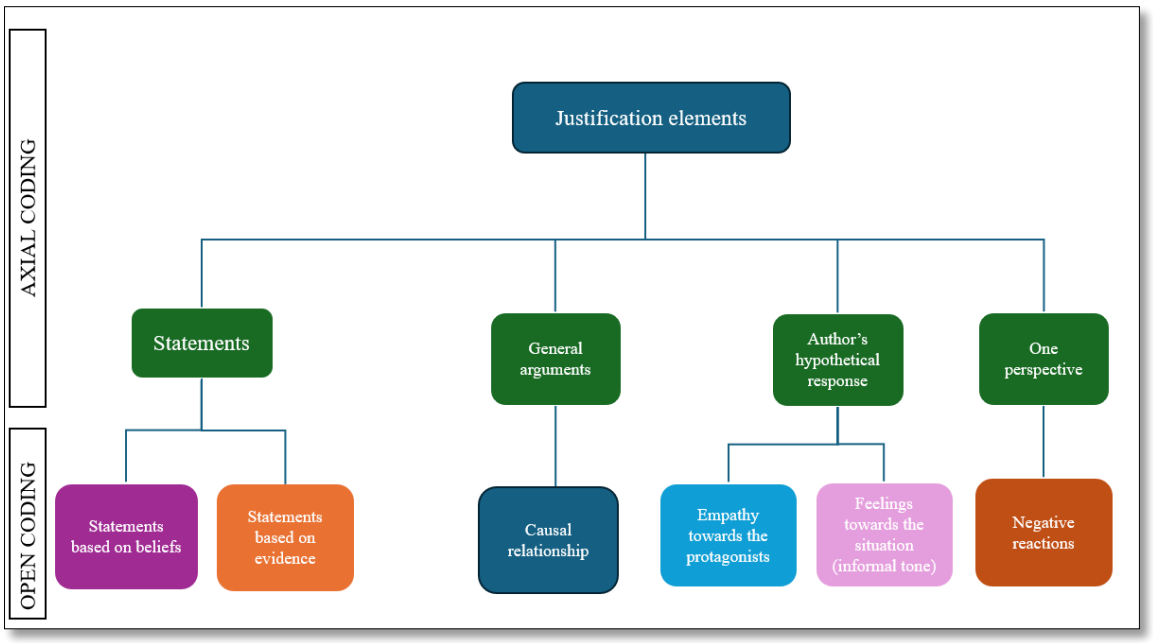

Figure 10 Open and axial coding for students' justification of a position adopted concerning a video comprehension

The task concerning the justification of a position adopted relating a video comprehension is paired with the justification for the questions designed in students' final interviews. Correspondingly, the goal was for students to justify their choices and work done in the interview presented. Having considered the different justifications provided, the open coding is built emerging sets of new codes (see Figure 11). A total of seven different codes have emerged from data collected from students. Accordingly, the codes stress the different elements that can be extracted from students' work. Thus, concerning justifications, students give much relevance to the relationship between the different elements present in their argumentation. Correspondingly, data show how students highlight, when arguing for their work, the interrelationships causing their work to be appropriate as it would be the causal interrelationships. Moreover, as coded in Figure 11, students seem to introduce through their argumentation some fallacies. Moreover, statements based on evidence are extrapolated from data since students rely on facts and data when providing statements about journalism or about their work. Another aspect that is worth considering is the multiple perspective adopted by students when arguing in which in order to provide an argumentation they stress the different participants involved as it would be "interviewer", "interviewee" and "viewer". When comparing the open codes from students' justification for their work and their justification for their position in the previously performed activity, notorious differences are observable. Whereas on

the first justification (see Figure 10), the statements rely on beliefs and evidence, on the final justification statements rely only on evidence. Moreover, there is also a distinction present in arguments format since in both cases students argue stressing the interrelationships between elements. Nonetheless, when arguing for their work students seem to introduce fallacies in their justifications. Moreover, when arguing for their written production, students consider a wide range of positions whereas on the first justification students only consider one position and opt for expressing opinions and feelings relating a hypothetical response from the writer showing explicit empathy towards the protagonists of the video. Therefore, there is a notorious difference between open codes in both justifications. When considering axial coding, in Figure 11, it is distinguishable the emergence of a new category which is categorized as "summary of content included in the justification". Thus, there is a new element present in the justification which is the recapitulation of the aspects said when providing an argumentation. Moreover, the different categories emerging when performing axial coding encapsulate the main categories present in data from a justification including thus, specific arguments, summary of content, statements and a multiplicity of perspectives.

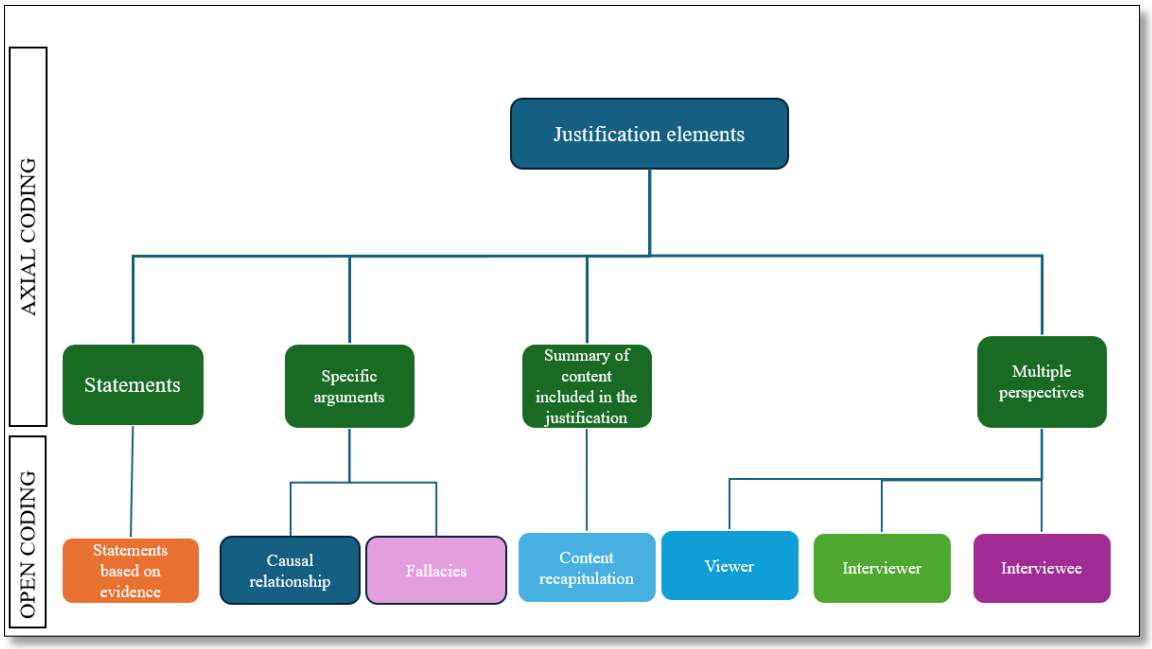

Figure 11 Open and axial coding for students' justification for their own interview

The nature of both justifications presented by students are slightly different. Nonetheless, the goal of the activity to have students providing arguments positioning themselves on a specific topic. Accordingly, as observable in the qualitative analysis and more

specifically, focusing on open and axial coding, it is noticeable that there is an importance distinction between both sets of data. Thus, the first justification provided includes codes relating students' feelings and hypothetical responses. Moreover, when coding arguments, the arguments are not consistent and are rather general based on beliefs and thoughts. On the contrary, when arguing about their own work, the coding includes statements and text summaries. Moreover, the argumentation shows deeper causal relationships, despite including fallacies. Furthermore, another noticeable shift in the second set of data is the multiplicity in perspectives since the data analyse shows that students position themselves considering various perspectives.

The qualitative research process has been accompanied by the use not only of the different coding but also by the application of a Critical Thinking assessment grid based on the work by Elder and Paul (2007) and by Dong (2015). The results of the application of the different tasks have been compared focusing on the results of each criterion. Correspondingly, the results have been grouped according to the moment at which the activities were performed by students.

"Intellectual standard"	Athlete's initial presentation (average punctuation – being the maximum 4)
Clarity	2,25
Accuracy	2
Precision	1,75
Relevance	2,25
Depth	2
Breadth	1
Logic	2,75
Fairness	3
Significance	3

Table 1 Average punctuation on the initial presentation concerning intellectual standards' grid

The information provided by the punctuation extracted from the evaluation of the sample of documents shows that in general terms, the punctuation is around the average. Nonetheless, precision, breadth and accuracy are aspects that fail to be accomplished in students' initial written productions.

Concerning the central activities, being them the three questions as well as the justification for a position adopted, there has also been an evaluation concerning the "intellectual standards" as the one presented from the initial presentation. The table below (see Table 2) presents the results for both the justification and the questions. It is observable that there is a general difficulty concerning the accomplishment of some of

the intellectual standards as it would breadth, logic, or significance. In general terms, most of the elements assessed are failed to be accomplished by students in the justification whereas the results in the questions' evaluation are slightly better, but sticking to difficulties concerning precision, breadth, and significance.

"Intellectual standard"	Sample of questions addressed to the teacher-chosen athlete (average punctuation – being the maximum 4)	"Intellectual standard"	Justification for a position adopted (average punctuation – being the maximum 4)
Clarity	2.75	Clarity	2
Accuracy	2.5	Accuracy	1.75
Precision	1.75	Precision	1.25
Relevance	2	Relevance	1.75
Depth	2	Depth	1.25
Breadth	1	Breadth	1.5
Logic	2.75	Logic	1.5
Fairness	2.25	Fairness	1
Significance	1.75	Significance	1.5

Table 2 Average punctuation on the questions as well as on the justification concerning intellectual standards' grid

The same comparative analysis (see Table 3) has been done concerning the three final tasks which are the presentation, the set of questions as well as the justification, focusing on an athlete who had been selected by students. The results show an improvement of the general results observed in the previous charts.

"Intellectual standard"	Athlete's presentation (average punctuation – being the maximum 4)	"Intellectual standard"	Set of questions addressed to the athlete selected (average punctuation – being the maximum 4)	"Intellectual standard"	Justification for the choice of questions (average punctuation – being the maximum 4)
Clarity	4	Clarity	4	Clarity	3.25
Accuracy	3.75	Accuracy	3.75	Accuracy	2.75
Precision	3.25	Precision	3	Precision	3
Relevance	3.5	Relevance	3.25	Relevance	3.25
Depth	2.75	Depth	3.25	Depth	3.25
Breadth	2.75	Breadth	3.5	Breadth	2.75
Logic	3.5	Logic	3.75	Logic	2.25
Fairness	4	Fairness	3.5	Fairness	2.5
Significance	4	Significance	3	Significance	3.75

Table 3 Average punctuation on the three final tasks concerning the intellectual standards

In order for the study to present a more visual comparison, a graph comparing the different sets of data and their punctuations has been created (see Figure 12 and Figure 13).

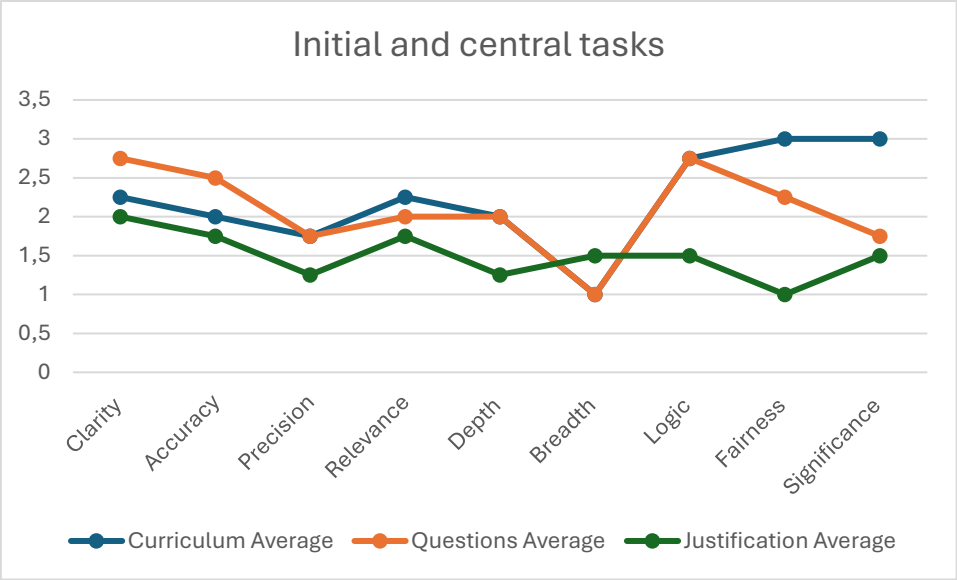

Figure 12 Comparative analysis of initial and central tasks

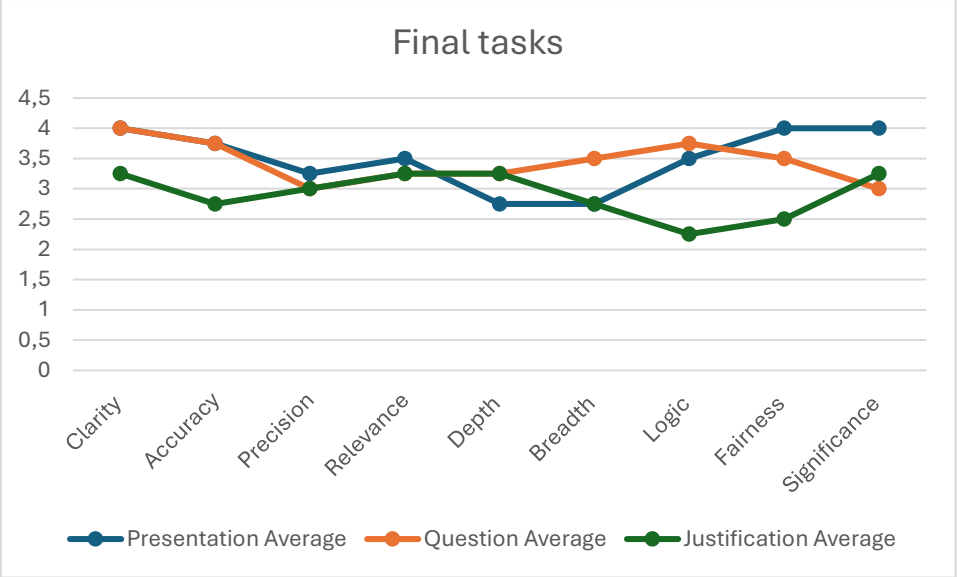

Figure 13 Comparative analysis of the three final tasks

By visually analysing both graphs, it is observable to the researcher that there is a difference between both charts. Both graphs have been interpreted focusing on two aspects being them the results concerning the task performed and the results concerning the analysed "intellectual standard". Accordingly, the analysis of the first graph considering the type of task shows that the task on presentation as well as the task on question design are slightly above average. Nonetheless, the data in the graph makes it observable to the researcher that the data on the task targeting the justification fail to get to the average. Considering the other side of the first graph, it is perceivable to the researcher that there are "intellectual standards" analysed that seem to be better

accomplished as it would be clarity and accuracy. Nonetheless, it is also observable that in the initial and central tasks, there is trouble in accomplishing breadth, depth and significance. Moreover, it is also observable that when considering the justification, it is in logic that the level is lower. Considering the second graph, it is perceivable that the three groups of tasks are above average and with higher grades in comparison to the first graph. Correspondingly, it is observable that there has been a shift specially on justification, which in the first graph failed to accomplish the average whereas on the second graph it accomplishes it. If setting the focus on the "intellectual standard" examined, it is perceivable that the rates in significance as well as in relevance are higher. Thus, when comparing both graphs it is observable that when the athlete being selected by students, the rates targeting relevance, significance and fairness are higher, whereas when the athlete being assigned by the teacher, there is a lower rate in significance and precision. Regarding precision, it is noticeable that when being assigned an athlete, the precision is lower than when choosing an athlete. Concerning significance, it is worth noting that when designing questions for a teacher-assigned athlete, the rate in the questions is rather low, whereas when crafting questions addressed to an athlete of their own choice, the rate in significance is rather high. There is a shift in how significant the questions are concerning the athlete being interviewed.

Considering the analysis provided both by the coding and by the results from the grid, it can be observed that there is a relevant change when the tasks are performed at the beginning of the unit and when being targeting a teacher-assigned athlete in comparison to when the athlete had been chosen by the student. Moreover, it is worth noting that the precision increases as the learning situation advanced. Thus, it is observable that when presenting an athlete, initially, there were inconsistencies, whereas when producing the presentation on their self-chosen athlete, the presentation was more precise and accurate as well as were the questions addressed to that athlete. Moreover, it is observable that there is a shift in students' position. In other words, at the beginning, the activities performed as were the questions and the justification, the position adopted by students, as shown in Figure 8 and Figure 10, was more attached to themselves, by providing arguments based on their own beliefs or by asking questions based on their own hypotheses, whereas towards the end there is a depersonalization in the whole interview. Accordingly, the questions, presentation and justification are more significant in terms of rates, and they result in fairer and more accurate. Thus, it can be observed that there is an

important shift concerning the tasks performed by students throughout the unit and that the differences make it observable a distinction between the student-chosen topic tasks and the teacher-chosen topic tasks regarding both CT and writing performance.

6. Discussion

The goal of the present study is to determine to what extent do CT skills and topic familiarity condition themselves and their impact on writing performance. Accordingly, the focus has been set on CT skills and their presence in data as well as the impact on them considering the type of topic. Thus, it is relevant therefore to discuss the results emerging from the data analysis.

6.1 Athlete's presentation

As far as the presentations are concerned, relevant changes took place in students' performance with regard to CT as well as to the content included in the task. According to Indah (2017), topic familiarity contributes to the writing performance of students. Accordingly, it is suggested that when the topic is student-initiated, the learner is more capable of expressing more ideas and more content on the topic since it is a topic of students' domain. This specific feature has been found in the analysis of data. When having to present an athlete, which was assigned by the instructor, the learners failed to introduce some key information and presented inconsistencies. However, when having to present a sportsperson from their own domain, students introduced sets of detailed information, anecdotes, and gave much attention to the professional career. As shown by open and axial coding, the main categories differ in both pieces of work since the information considered key in order to know a sportsperson changes. Thus, the results provided by the qualitative analysis are in line with the study provided by Indah (2017). Considering the results extracted from the chart evaluating the Critical Thinking skills, it is perceivable that the results are higher when the topic is familiar to students than when the topic is not that familiar. One of the aspects analysed in the chart, precision, has been shown to be conditioned by topic familiarity since when presenting an unfamiliar athlete inaccuracies were present whereas when the athlete being selected by students themselves details and more precise information were present in data. This notion of topic familiarity being an influencing factor for accuracy, precision and length is supported by Bui and Luo (2021). Therefore, the type of topic and the writer's familiarity with the topic selected are two aspects that may exert an influence on the written production since the precision

and accuracy of the production may be different when being exposed to an unfamiliar topic. This specific feature has been found in the data analysed. Accordingly, when presenting a student-chosen athlete, more specific lexis appeared, and more precision was observed. Moreover, as stressed by Rahimpour and Hazar (2007), when the topic being familiar to the learner, less planning is needed and thus, this time that used to be inverted on planning is dedicated to accuracy in meaning of words. Thus, as observed in the data analysed, the data showed how in initial tasks the results in precision were rather low and the coding showed inconsistencies in the initial tasks whereas when the topic was more familiar and the topic was selected by themselves, the texts were more accurate, precise and consistent.

6.2 Question design

The data concerning the design of the questions suggests that there is a shift in students' questions addressing athletes. Accordingly, the shift resides in the objective as well as on the topic of the questions designed. One relevant aspect suggested by data is that when being more familiar with journalism and with the athlete that is going to be interviewed more objective questions emerge. Thus, the questions presented at the end of the learning situation were detached from personal information and were focused on sports' aspects and on professional career. Moreover, giving the opportunity to students of choosing the interviewee has contributed to a change in questions' focus and format. According to Bui and Luo (2021), topic familiarity conditions the range of vocabulary in use. Thus, the study by Bui and Luo highlights the fact that when the topic is familiar to learners, the lexical diversity increases. Returning to the present case of study, when considering the first set of questions, the questions are somewhat repetitive in terms of wording whereas the second set of questions includes a wide range of vocabulary related to the specific athlete or sports' domain. Considering the numerical results obtained when having applied the Critical Thinking skills evaluation grid, it is noticeable that when being confronted with a teacher-chosen athlete, the results show a lower rate of CT skills whereas when the athlete is student-chosen, the results show a higher rate. Concerning the process of writing per se, according to Flower and Hayes (1981), the task environment exerts an influence on the different processes present in the writing process. Therefore, the subprocess entitled planning which implies the retrieval of information on the topic and the generation of ideas might be directly influenced by task environment. As suggested by data, there is a change in organisation and creation of questions, since when

the athlete being of their domain the questions are accurate and with no language nor content inconsistencies, whereas when the athlete being assigned by the teacher, inconsistencies related both to language and to content are present. This may suggest that when being assigned an athlete to interview, more time was devoted to planning and less time was spent evaluating and rephrasing. Accordingly, less time has been spent on consolidation, regeneration or evaluation of the questions designed.

6.3 Justification

The data related to the justification task suggests that there is a noticeable difference between both justifications. Accordingly, when having to argue on a visual support, which is unfamiliar to the learners, the justification set falls on assumptions, beliefs and on learners' hypothetical responses. The notion of arguments being conditioned by the nature of the topic and learners' familiarity with the topic per se is supported by Jaijon (2021). According to Jaijon (2021), when encountering a familiar topic, students' argumentations are more complex than when confronted with a more unfamiliar one. Thus, the arguments are richer in complexity when arguing about a familiar topic. This specific phenomenon has occurred in learners' justifications. When confronted with a familiar topic as it is justifying their own work, students present more complex arguments than when they had to argue on a visual support. Considering the results extracted from the CT chart, the justifications provided in the first set of data encountered lower results regarding CT skills whereas the second set of data got higher rates concerning CT skills. Focusing on CT skills and data's rates, it is worth noting that logic and fairness results in the first set of justifications are not above average. Thus, it may be suggested that when arguing on an unfamiliar topic, contradictory and illogic statements and assumptions emerge. According to Hadley and Boon (2023), for an argument to be valid it is highly relevant for the reasons to be related to the main claims. That is to say that in an argument the reasons and their relationship are key in order for an argument to be valid. Bringing this notion to the present study, it is observable how in the more familiar topic the reasons given are related to the topic whereas in the unfamiliar topic more unrelatedness is present. According to Stapleton (2001), when EFL learners are being confronted with a topic to argue which results in unfamiliar to them, less reasons and evidence are present in the argumentation whereas when the content is more known and familiar to the learner, more evidence and reasons are present in the argumentation.

7. Conclusions

The objectives set for this dissertation related the interrelationship between writing, topic familiarity and Critical Thinking skills. Moreover, the reaching of the objectives means being able to provide an answer to the research questions proposed right at the beginning of the present. Accordingly, the first research question posed was:

1. To what extent does 4th of ESO students' topic familiarity condition the outcome and the use of Critical Thinking skills involved?

The qualitative research performed accompanied by the literature consulted suggests that students' outcomes are influenced by the familiarity of the topics involved in the activity or task to be performed. Correspondingly, according to the results extracted from the Critical Thinking skills' assessment, the more familiar the topic the better the performance and the uses of Critical Thinking skills. The chart comparison on the different stages at which the activities were performed showed higher rates in Critical Thinking skills in use. Moreover, when being confronted with a familiar topic, students benefit from it since there is a wider lexical variety, a higher use of Critical Thinking skills and improvements in the writing performance.

Another research question was designed in order to answer throughout this study. Thus, the second research question was:

2. To what extent do both teacher-initiated topic and student-initiated topic influence the students' writing performance?

The qualitative research performed manifests that the type of topic present in the activity influences the learners' writing performance. Accordingly, considering the results in both sets of justifications, the rates showed that when the topic was chosen by them, the results in precision, significance and breadth increased significantly. Moreover, considering the coding, the change in the topic implied changes in the codes and categories since more unclear evidence was present in the teacher-proposed justification. Therefore, if the topic is familiar to the learner, the writing performance and the Critical Thinking skills used will be better reflected. Considering writing performance, when the topic being familiar, lexical variety as well as length and content might be higher than when the topic is not familiar for the learner. Thus, having students perform an activity which has a student-initiated topic and to have them perform an activity on a teacher-initiated topic might mean the encounter of different writing performances and skills in use.

The conclusions at which the present dissertation has arrived might be useful for the teaching community. Accordingly, light has been shed on the relevance of topic familiarity with regard to EFL students' written productions. Moreover, CT skills and the interrelationship between CT skills, topic familiarity and writing performance has been stressed. Considering the teacher practices, it might be useful to incorporate familiar topics to learners when proposing a written production but also to incorporate unfamiliar topics in order to foster reflection. Moreover, considering unfamiliarity, through this study has been observed that when confronting an unfamiliar topic, students devote more time planning than rather evaluating or reconstructing. Thus, it might be relevant to leave time and to stress the importance of reflection and evaluation when producing a written piece on an unfamiliar topic. Regarding CT skills, the study has aimed to show the relationship between CT and writing. Thus, both fields are interconnected, and it might be highly relevant to incorporate tasks designed in order to foster EFL learners' CT skills as well as writing competences. Further research might be done on the field considering the role that CT and topic familiarity play on EFL learners' written productions considering larger groups and contexts. Moreover, research might as well consider other types of tasks relating oral production and reception and the interrelationship between CT and topic familiarity.

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9. Appendices

Appendix A: Critical Thinking Assessment Grid

"Intellectual Standards"	**Poor (1p)**	**Fair (2p)**	**Good (3p)**	**Excellent (4p)**
Clarity	The text is not clear. It results in ambiguous, unclear, and confusing.	The text is understandable. Nonetheless, it results in confusing in some parts.	The text is clear and understandable but including some ambiguities.	The text is clear and results in easy to understand. No ambiguities are present.
Accuracy	The text does not provide true information.	The text provides some inaccuracies and misleading statements.	The text is overall accurate and contains slight mistakes.	The text does not contain errors and the information presented is true and accurate.
Precision	The text presented is not precise and remains general with vague information.	The text presented is somewhat precise and specific but in some parts the statements are rather general.	The text is quite specific and detailed. Nonetheless, in some parts, the text remains general.	The text presented is specific, containing precise and specific information explained in detail.
Relevance	The text does not address the main question/task. Moreover, it does not relate to the specific topic.	The text addresses in a general way the main question/task presented but sticks to other topics unrelated.	The text presented addresses in a complete way the question/task despite slight unrelatedness.	The text presented directly addresses the main question/task. Moreover, there is a complete relationship with the topic.
Depth	The text does not address the complexities and difficulties expressed in the task or question.	The text addresses slight complexities and difficulties residing in the question or task. The focus is rather superficial.	The text presented addresses some of the complexities and difficulties expressed in the question or task.	The text presented addresses the complexities and difficulties expressed in the question or task thoroughly.

Breadth	The text does not consider other perspectives or viewpoints.	The text slightly considers different points of view and perspectives.	The text considers some possible perspective and viewpoints.	The text considers multiple points of view and different perspectives.
Logic	The text is not coherent, and it presents important gaps in logical connections.	The text is somewhat coherent. Nonetheless, there are some inconsistencies that may lead it to incoherence.	The text is in general coherent despite slight inconsistencies.	The text presented is coherent.
Fairness	The text is partial and biased.	The text results in somewhat partial and is slightly biased.	The text is overall fair and does not present important biases.	The text results in impartial and unbiased.
Significance	The text fails to address the relevant information and focuses on irrelevant details and information.	The text addresses important and relevant information but it mixes them with irrelevant information.	The text addresses mostly relevant information relating the activity or question but includes some irrelevant data.	The text focuses on relevant aspects relating the activity or question.