An Analysis of Major Difficulties Moroccan Engineering Students Encounter in Argumentative Essay Writing: The Case of Preparatory Classes of Higher Engineering Schools

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**Abstract**

The aim of this study is to analyse argumentative essay errors made by Moroccan students in Preparatory Classes of Higher Engineering Schools (Classes Préparatoires aux Grandes Ecoles) (CPGE). The participants of this study were 1st year Physics, Chemistry and Engineering Sciences (PCSI) students in CPGE Omar Ibn Al Khattab, Meknes. 68 students participated in the study which means that all PCSI students were involved. The study uses a mixed method design. In the quantitative method, the data was gathered from students' argumentative essay tests. Students' errors were quantified numerically and the contents of teachers' interviews were analyzed qualitatively. The results of the study demonstrate clearly that CPGE students' difficulties in essay writing are aligned to many factors. Firstly, CPGE Students’ lack language proficiency. They have serious language problems accumulated from previous years of study. Secondly, students lack motivation as they do not find pleasure in writing and perceive it as a tiring and boring task. Thirdly, they do not read a lot which makes the task of writing very hard. Fourthly, students do not master the techniques of writing a structured essay. In fact, it is a process that requires many steps to be followed from introduction to conclusion. The study ended up by suggesting possible solution to overcome such difficulties.

**Keywords:** Argumentative essay, students’ errors, writing components.

1. INTRODUCTION

Academic writing is a skill that enables students to apply the acquired linguistic and cognitive abilities in contexts to generate a structured and meaningful piece of writing. However, training students to write academically is not an easy task. Writing coherently and effectively demands language proficiency and argumentative skills. “Writing an extended text at an advanced level involves not just the language system. It poses significant challenges to our cognitive systems for memory and thinking as well”. (Kellogg.,2008, p.2).
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The act of writing requires reflection and critical skills. Debatable topics need language proficiency and logical arguments to be convincing. “The problem of content - what to say - and the problem of rhetoric-how to say it - consumes the writer’s attention and other resources of working memory”. (Kellogg ,2008, p.2). In argumentative writing, the writer encounters varied challenges of form and content. The writing form should fit the academic standards and the content should be supported by logical arguments and concrete examples.

The writing skills aims to develop the quality of writing product to communicate ideas clearly and efficiently.

According to Flower and Hayes (1980), the writing process should include theses four intentions:

1. The effect the writer wants to have on the reader.
2. The relationship the writer wishes to establish with the reader, the persona,
3. projected self, or voice the writer wishes to create.
4. An attempt to build a coherent network of ideas, to create meaning.
5. Formal or conventional features of a written text. (p.28).

The mastery of writing skills has a great impact on the reader. It is a cognitive process that involves both language and thinking to convince the reader about certain topics. In this regard, academic writing is given much importance in tertiary education to enable students to enhance their abilities and to come up with well structured and meaningful writings both inside and outside the classroom.

1.1. Research Problem
Argumentative writing is a skill that trains students to express themselves about certain topics using logical arguments in an organized way. It enables them to develop their abilities to analyse concepts, synthesize, solve-problems and take decisions. However, CPGE students encounter many difficulties in argumentative essay. Through a close analysis of students’ production and teachers’ feedback it has been noted that students face different kinds of problems both in form and content. In this regard, this study intends to analyze these major challenges and suggest possible solutions.

1.2. Research Questions
1- What are the major difficulties CPGE students encounter in Argumentative essay?
2- What are the causes of such difficulties?
3- What are the possible suggestions to enhance students’ performance in Argumentative essay?

1.3. Research Hypotheses
1-CPGE students encounter many difficulties in argumentative essay.
2- CPGE students face such difficulties in argumentative essay due to their poor level in language proficiency.
3-CPGE students need more guidance and practice to improve their level in argumentative essay.

1.4. Research Objectives
1. To assess the performance of CPGE students in argumentative writing.
2. To scrutinize the kinds of difficulties CPGE students encounter in argumentative essay.
3. To suggest possible solutions to improve CPGE students’ performance in argumentative essay.

2. REVIEW OF LITERATURE
2.1. Writing Proficiency
Writing as a major language skill is crucial in everyday communication. It is a productive skill that allows the individual to express and share concerns and ideas with the world. A proficient writing makes communication easier and clear as it masters the techniques of writing. Writing requires planning, setting clear goal, organizing data, appropriate language, mechanics and reviewing. It is a process that recruits varied techniques for the sake of proficiency. “Proficient writers revealed a better command of language and linguistic structures. They employed a variety of vocabulary and new language structures and were aware of the rhetorical rules” (Dallagi, 2020, p.122). Additionally, writing proficiency requires concentration, instruction, practice, and patience. (El Tayeb & Abbas, 2018, p.146).

In academic level, writing proficiency has become a prerequisite for students’ success in exams and later on in the workplace. In classroom, students sharpen their writing abilities gradually through series of displayed courses and exercises in different types of writing. The rationale behind is to enable them to perform well in their academic career and transfer their writing skills outside the classroom. Good writing is highly required to inform, express views, persuade, inspire, create and call for action (Akki & Larouz, 2021; Benattabou, 2020).

In modern society, writing skills are indispensable to have a say about what is going around. Preparing students to be good writers is a priority to participate actively in social dynamism and to share their ideas publicly. As 21st century students are digital natives, they receive a flood of information, constantly updated and introduced to plenty of topics. Developing their writing ability is of great importance as they become able to write and express themselves well about certain realities. In this regard, teaching and assessing writing in higher education should be given much focus and interest.

The development of writing concept pushes researchers to think of collaborative writing. It is no longer seen as a solitary activity but rather as a social process. For Lowry, Curtis, and Lowry (2004), writing is “an iterative and social process that involves a team on a common objective that negotiates, coordinates, and communicates during the creation of a common product” (p.72).

Students in tertiary are anticipated to develop their language proficiency, namely in academic writing. The mastery of writing skills help in producing quality writing and investing all the required knowledge in reading, listening and speaking skills. “By applying various linguistics and rhetorical alternatives to accomplish meaningful tasks in diverse contexts, novice writers may enable themselves to perform their writing tasks after careful analysis of the complex variable in composition texts” (Sajid & Siddiqui, 2015, p.175).

2.2. Argumentative Writing
Writing an argumentative essay is a complex process that needs much practice and the mastery of many skills. According to Nippold and Ward-Lonergan (2010), “argumentative
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writing is a challenging communication task that needs sophisticated cognitive and linguistic abilities” (p.238). In addition to language proficiency, it requires high order thinking skills to compose sound arguments. To convince the reader, students have to go beyond the emotional appeal and back their opinions with rational and logical arguments. In this regards, five basic characteristics of an argument should be included in writing:

1- Purpose
2- Arguable issues
3- Evidence
4- Audience
5- Recognition of topic’s complexity.

(Lap & Truc, 2014, p.68)

The suggested characteristics are paving the way to students to have a clear concept about the construction of an argumentative writing. The clarity of purpose motivates learners to achieve it and choose debatable issues that incites discussion, views and opposing views. “Recognizing an argument’s complexity can help writers understand that there may be more than one ‘right’ position for a meaningful and memorable argument to be produced” (Lap & Truc, 2014, p.68). Such debates and dialogues are meant to generate new ideas and to convince people with reason and logic. Argumentation enables students to recognize logical fallacies and sharpen their thinking skills in varied contexts.

In tertiary education, students are introduced to develop an argumentative writing which takes the format of five paragraph essay: Introduction, three paragraphs and conclusion. The students are asked to back up their position towards a statement and convince the audience through evidence and strong arguments. “The criticality of learners is measured in argumentative production as they display the ability to defend their claims through reason” (Beniche, Larouz, & Anasse, 2021, p.196). In addition to content, essay form, language and mechanics are recommended. In this respect, students need to invest all these techniques to write a structured argumentative essay.

2.3. Assessing Argumentative Essay

Argumentative writing is a process through which students develop their argumentative abilities academically and in daily practices. Hence, Its assessment is given much focus and takes many ways. For Sampson, Enderle, and Grooms (2013), the written assessment of argumentation Should be scored on a rubric which focus on three features of the argument:

1) The structure and complexity of the argument
2) The quality and relevance of the content of the argument
3) The spelling, grammar, and mechanics of the argument.

(p.30).

To overcome the pitfalls of the holistic scoring, the analytic scoring is suggested to include other aspects in the writing process. The assessment of writing in analytic scoring displays
content, organization, vocabulary, usage and mechanics. “Thus, analytic scoring schemes
provide more details about a test taker’s performance in different aspects of writing and are
consequently preferred over holistic schemes” (Saito, 2010, p.30). The analytic scoring
suggests a detailed scrutiny to make a clear diagnosis of learners’ writing performance which
is not the case of the holistic scoring that target the writing composition as a whole.

Rubrics are also prevalent in the assessment of writing. They are used by teachers to give
feedback, assign a task and give a mark about a suggested writing performance. A rubric takes
the form of a one or two page document describing in details a certain assignment. It is “a
document that articulates the expectation for an assignment by listing the criteria, or what
counts, and describing levels of quality from excellent to poor” (Herawati, 2011, p.446).

The rubrics are not used just for grading learners but rather to teach and evaluate. “In self-
centred learning, students develop a thinking process of how to succeed and also guarantee
them of a dependable judgments about the quality of a work”(Herawati, 2011,p.446). They
can use rubrics to reflect and evaluate their own performance by themselves through a well-
structured assignment.

3. METHODOLOGY

This study resorts to a mixed method design. Roughly speaking, a mixed method research
tends to integrate both qualitative and quantitative data within a single study. Mixing means
the process whereby the qualitative and quantitative elements are combined to produce a fuller
account of the research problem.(Halcomb & Hickman, 2015). In the quantitative method, the
study aims to gather data from students’ argumentative essay tests. Students’ errors were
quantified numerically. However, in the qualitative method, the contents of teachers’
interviews were analyzed closely.

3.1. Participants

1. 1st year Physics, Chemistry and Engineering Sciences (PCSI) students in CPGE Omar Ibn Al Khattab, Meknes. All students participated in the study. They were 68 (20 males and 48 females) and their ages ranged between 17 and 19 years. The study used the purposive sampling technique and was carried out in May 2021.

2. 10 Moroccan CPGE teachers from different centers participated in the study. 3 females and 7 males. The study was carried in September 2021.

3.2. Instruments

The instruments used to conduct this study were an argumentative essay test and a semi-
structured interview. The argumentative essay test was used to assess students’ performance
in argumentative writing and to spot the major errors and the semi-structured interview was
used to get the feedback of teachers about students’ argumentative writing.

3.2.1. Argumentative Essay Test

To test students’ argumentative writing performance and scrutinize the major difficulties, the
students were asked to write an argumentative essay about the following issue: “Social
networking should be controlled”. The time allotted for the argumentative essay was 1 hour
and the rubric of scoring was adopted from Schwalm’ model. (Schwalm, 2007).
3.2.2. Semi-Structured Interview

Many Moroccan CPGE teachers representing different centers participated in this study through answering many questions related to the research questions. The interviews were carried out online via mobile, email and watsApp. 10 teachers participated in the study and the language used was English since all the interviewees are CPGE teachers of English.

4. DATA COLLECTION PROCEDURE

The study attempted first to analyse CPGE students’ production in argumentative essay and scrutinize the major problems. The analysis included all elements of the argumentative essay through a rubric of assessment. Then, the output of the teachers’ opinions about students’ production would be analyzed to confirm or refute the raised hypotheses.

5. DATA ANALYSIS PROCEDURE

For the analysis of the collected data, the study used both qualitative and quantitative methods. CPGE students’ performance in argumentative essay and the committed errors would be first coded and processed numerically. Then, The qualitative data that were teachers’ opinions about students’ production were analyzed in a qualitative way.

6. RESULTS

6.1. Argumentative Essay Test

In this study, the argumentative essay components that would be analyzed and assessed were errors in introduction, body paragraphs, conclusion, language, vocabulary and mechanics.

The following table displays the frequency and percentage of errors in the argumentative essay components:

<table>
<thead>
<tr>
<th>Argumentative Essay Components</th>
<th>Frequency of errors</th>
<th>Percentage of errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Background</td>
<td>21</td>
<td>30.88%</td>
</tr>
<tr>
<td>Thesis statement</td>
<td>12</td>
<td>17.64%</td>
</tr>
<tr>
<td>Body paragraphs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound arguments</td>
<td>19</td>
<td>27.94%</td>
</tr>
<tr>
<td>Supporting details</td>
<td>17</td>
<td>25%</td>
</tr>
<tr>
<td>Refutation</td>
<td>23</td>
<td>33.82%</td>
</tr>
<tr>
<td>Conclusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summarising main ideas</td>
<td>18</td>
<td>26.47%</td>
</tr>
<tr>
<td>Writer’s opinion and suggestion for change</td>
<td>15</td>
<td>22.05%</td>
</tr>
<tr>
<td>Language and Vocabulary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sentence clarity and correctness</td>
<td>22</td>
<td>32.35%</td>
</tr>
<tr>
<td>Vocabulary choice</td>
<td>16</td>
<td>23.52%</td>
</tr>
<tr>
<td>Mechanics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capitalisation</td>
<td>14</td>
<td>20.58%</td>
</tr>
<tr>
<td>Punctuation</td>
<td>24</td>
<td>35.29%</td>
</tr>
</tbody>
</table>

As illustrated in the table, errors in punctuation are dominant as they represent (35.29 %). They are followed by errors in refutation (33.82 %), errors in sentence clarity and correctness (32.35 %), errors in background (30.80 %), errors in arguments (27.94 %), errors in
summarizing main ideas (26.47 %), errors in supporting details (25%), errors in vocabulary (23.52%), errors in opinion and suggestion for change (22.05%), errors in capitalization (20.58%) and errors in thesis statement (17.64%).

The following chart clarifies more the frequency and percentage of errors in the argumentative essay components:

Through the analysis of the students’ errors in argumentative essay, it can be noticed that CPGE students encounter major difficulties in the argumentative essay components that are the result of many factors. As a matter of fact, argumentative essay is very complicated and challenging. In the writing process, students are supposed to develop a well structured 5 paragraph essay that bears in mind the form and the content. Such task needs much practice and continuity. However, students lack motivation to write essays as they see writing itself a hard task. In addition, CPGE students are overloaded with a long program of scientific subjects.
6.2. Semi-Structured Interview

To lead a successful interviewing, the interviewer should follow the suggested steps:

- Question should be carefully planned in advance with a good understanding of the problem under study. The researcher should seek time and place that suit the interviewee.
- The interviewer should be friendly and informal.
- Creating optimal conditions motivate interviewees to communicate and generate more ideas.
- The art of listening and respect are highly required.
- Questions must be clear and well phrased for the seek of understanding

(Kotari, 2004, p119).

The semi-structured interviews were implemented in this study to allow an in-depth understanding and analysis of the raised research problem. The interviews pave the way to CPGE teachers to offer more detailed description of students’ difficulties in argumentative essay. They are practitioners who have accumulated a long experience in teaching and can help scrutinize the major problems and suggest possible solutions.

The interview questions were prepared in advance and targeted the issue under investigation.

Through the close analysis of the semi-structured interview with CPGE teacher, here are the major deduced points:

1. The majority of CPGE teachers think that argumentative essay is challenging and requires many skills to be performed.
   - Teacher 1 with 12 years experience believes that argumentative essay “demands fluency, enough and adequate language use, critical thinking skills and logic” and many students “seem struggling with the language and the quality of arguments. Some even find it boring and too difficult to try”.
   - Teacher 2 with 8 years experience thinks that “The majority of students are not motivated to write argumentative essays. Those with a low language proficiency (English) tend to feel apprehensive towards writing in general and find it too challenging. Students with an adequate English proficiency, on the other hand, may find it boring and uninteresting”.
   - Teacher 3 with 4 year experience states that “Students have developed reluctance to write in general. If they do the writing, it’s only as preparation for the exam. Students prefer to talk and debate as long as it takes but not write”.
   - Teacher 4 with 20 years experience views that in argumentative essay students encounter “pitfalls in grammar, lack of vocabulary and ignoring the steps and main rubrics”.
   - Teacher 5 with 14 years experience believes that “Writing is the pet peeve of most Moroccan students in general, and CPGE students are no exception. Most of the time they find it difficult
to engender suitable ideas due to lack of reading. In addition, as they are used to writing without respect to any strategy, they fail to outline their arguments methodically. What is more, their poor level of English renders the job more complicated for them”.

- Teacher 6 with 9 years experience considers Argumentative essay “highly challenging since it requires good knowledge of the topic under study. In this way, students cannot just imagine arguments: either they have prior knowledge of them or not”.

2- According to most CPGE teachers, there are many factors behind such difficulties in argumentative essay:
- Students lack motivation to write an essay
- Argumentative essay is demanding linguistic and cognitive skills
- Students do not read a lot which makes the task of writing very hard
- Students do not respect the structure of writing an essay.
- Students perceive writing in general as a difficult and a boring task and prefer to talk and discuss.

3- Teachers’ suggestions to develop students’ level in argumentative essay:
- The reading comprehension materials should be selected for this purpose. Reading comprehension is an interface of writing skills.
- Encourage them to read (even outside the classroom) and select information.
- Practise writing in every session and assign homework (short passages).
- Find a way to motivate them to write more often about topic of interest to them; a blog or class magazine can do.
- Provide background knowledge about the issue
- Divide students into groups to discuss ideas before writing them down
- Go through the lesson step by step
- Provide instantaneous feedback
- Help them overcome the psychological hurdle that they can not write.
- Student should approach argumentative writing through a gradual exposure to its ingredients: lead-in, thesis statement, outline, introduction, argument, body paragraphs, and conclusion. Each should be taught a stand-alone sub-skill before integrated into a full-essay writing.

7. DISCUSSION

Through the examination of the students’ argumentative essay performance and the close analysis of CPGE teachers’ interviews, this study has attempted to display the major difficulties CPGE students encounter and their causes and to suggest possible solutions. The obtained results confirm the raised hypotheses.

It is clearly deduced that CPGE students face many difficulties in argumentative essay which are aligned to many factors:
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- Students’ errors in argumentative essay are due to their language proficiency. They have serious language problems accumulated from previous years of study.

- They lack motivation as they do not find pleasure in writing and perceive it as a tiring and boring task. It requires linguistic and cognitive competence.

- They do not read a lot which makes the task of writing very hard. Reading and writing are skills that are interrelated. Through reading, language is enriched and the flow of ideas and structure are flowing spontaneously.

- Students do not master the techniques of writing a structured essay. It is a process that requires many steps to be followed from introduction to conclusion.

- Students need to get continuous feedback from their teacher to know their perfections and imperfections.

To overcome these difficulties and improve their level in argumentative essay, students are supposed to abide by the following:

- Students should develop a habit of reading to enrich their language and ideas. Reading helps students to sharpen their writing skill as they are introduced to many language structures, arguments, ideas in varied contexts.

- Students should be encouraged to write regularly. Writing is a craft and a process that needs more practice and endurance.

- Teachers should back up their students to overcome psychological barriers that cripple their ability to write and express themselves in written forms.

- Students should be introduced to argumentative essay gradually. Each component of essay writing should be taught independently before its integration in a whole essay.

- Team work is highly appreciated to allow students discuss ideas, reflect on language structure, vocabulary choice, sound arguments and mechanics.

- Students should be aware of the rubrics used to assess their essay writing. It allows them to know what they are required to do in detailed way.

8. CONCLUSION

The study aims to analyse Moroccan CPGE students’ errors in argumentative essay. It uses both quantitative and qualitative methods to get a deep understanding of the research problem. The study results revealed that CPGE students encounter many problems in argumentative essay writing. The dominant errors are related to punctuation and represent (35.29 %). They are followed by errors in refutation (33.82 %), errors in sentence clarity and correctness (32.35 %), errors in background (30.80 %), errors in arguments (27.94 %), errors in summarizing main ideas (26.47 %), errors in supporting details (25 %), errors in vocabulary (23.52 %), errors in opinion and suggestion for change (22.05 %), errors in capitalization (20.58 %) and errors in thesis statement (17.64 %).

These problems are the outcome of many factors. According to teachers’ output, most students lack motivation and the pleasure to write. In addition, most students do not read regularly and lack language basics which make the task very difficult. Writing an
argumentative essay requires both linguistic and cognitive skills. In this regard, CPGE teachers suggested that students should be motivated to write regularly, introduced to argumentative essay gradually starting from simple to complex. Team and pair work should be involved in classroom activities to allow students exchange ideas and collaborate. Finally, rubrics should be made clear to students to know what they required to do in an argumentative essay.

8.1. Recommendations and Implications

Many recommendations and implications should be drawn from the results of this study:
1- In tertiary education, students should be motivated to enhance their argumentative skills both in speaking and writing. They are highly required academically, at workplace and in daily practices.
2- CPGE students should be introduced gradually to the techniques of argumentative essay and follow well structured rubrics.
3- Writing activities should be assigned both in classroom and outside classroom to allow students develop their writing habit and practice more.
4- CPGE students should be assigned more reading tasks to enrich their ideas, vocabulary, grammar, style and mechanics in contexts.

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