Abstract: - The issue of educating academic writing skills in engineering is a current challenge nowadays, for both professors and learners. Scientific and technological communication on recent progress is performed via formal, clear, academic as well as effective writing, usually in a foreign language of wide circulation, which makes the task even more difficult. Didactic efforts must be accompanied by students’ practice, as writing is not only expression of meaning, but also self-expression, involving all individual skills and transferable abilities, alongside with an intense effort in the area of objectivity and self-assessment, in order to avoid field and regional/cultural frameworks that might distort the key meaning. The present approach deals with the general basic format of the five-paragraph essay and with its mostly used derivates: argument essays, exemplification, observation, descriptive, exploratory, and assessment compositions, with summaries and with compare & contrast texts. Pros and cons of online essays are also discussed, with the intention of avoiding plagiarism and constructing long-lasting proficiency in reasoning, arguing, and communicating in the field.

Key-Words: international formats, types of essays in engineering, foreign language communication proficiency

1 Introduction

The contemporary globalized world imposes predictable patterns of communication as a basic requirement in promoting understanding and effectiveness. Science and technology have overpassed borders to become the key ingredient for comfort and success, which cannot be imagined in the absence of foreign language academic writing skills in the field of engineering.

Labor markets, in their turn, could not function without clearly drafted documentation and regulations, able to organize their activities both in factories and in research, so that workers of all nationalities might strive in converging directions in order to complete the project they were hired for.

2 Problem Formulation

Preparing future engineers for written communication begins with explaining and enforcing the fundamental essay structure in academic writing, which is the five-paragraph essay, as this is the stemming point for all other varieties of academic compositions. Such activities are accompanied by presenting and analyzing samples taken from various sources, including the Internet, which will enable the professor to guide students towards sensible and constructive use of online resources, avoiding paid custom-made texts, as well as plagiarism. Here follow the pattern for the basic essay and the arguments on the use of online essays:

2.1 Five-Paragraph Essays

A five-paragraph essay follows a very strict yet simple format: introduction, three-paragraph body, and conclusion.

The introductory paragraph includes the thesis statement and a brief outline of the essay. It focuses the reader by using an attention grabber: answering a question, stating an amazing fact, telling a short story. The final sentence of the introductory paragraph should capture the reader and make the transition to the body; also, the first sentence should connect with the last one in the paragraph. The thesis is formulated in the first or second sentence of the introduction.

In what concerns the body of the essay, the next paragraph discusses the most relevant idea in the composition, and a special mention should be made for the third paragraph, which is the second paragraph of the body, in which the next strongest point is discussed. This point must be a clear follow up of the previous one containing a transition sentence at the beginning, for proper logical connection. The fourth paragraph, which is the third paragraph of the body, presents the weakest of the arguments, still appropriately following up the previous demonstration. The last sentence should indicate it as the last major point to discuss, which leads to the conclusion.

The conclusion must restate the thesis as well as the three main supporting ideas debated in the...
previous body paragraphs in a new, powerful and meaningful way, for increased impact and more convincing connotations, enhancing the validity of the essay and of its central viewpoint.

Proofreading for grammar and punctuation errors, for flaws in logic, and for smooth and clear transitional sentences is essential.

2.2 Online Essays, Benefits and Dangers

Found on the internet and intended as examples or as purchasable products, they are valuable sources for those in need of guidance. For educational purposes, models are provided to beginners as samples, featuring several margin notes which point to characteristic elements and tips for proper execution:

- the thesis statement
- supporting arguments and examples
- additional information
- topic sentences proving the thesis right
- rewording the thesis statement in the conclusion
- conclusion components
- secondary sources cited
- structure, format, layout

Additional productive aspects of online essays:

- basis for students’ own essays
- framework for research into a particular subject
- improvement of certain areas in learners’ writing
- typical approaches for specific fields
- verification skills for credible information check

Purchased texts are pre-made and custom made: the former have been prepared and written on a particular topic, at a certain academic level; the latter are requested from an essay-writing service to fit the specifications of an individual client.

The counter-productive aspects emerge as learners buy a text, which, by contract, will be used at the purchaser’s discretion, as a substitute for personal writing and intellectual effort. Online essay services have databases of a variety of compositions on many topics, so that interested buyers can instantly acquire ready-made products. If a purchaser should need a text drafted according to exact specifications, or on uncommon topics, he/she will pay for custom online compositions on that exact template. Professors must therefore scan homework for plagiarism and for paid essays, in addition to their normal tasks of correcting and guiding student work & learning progress. There are instances when students are not even aware of the differences between essays and other academic texts imported from the Internet: essays contain the writer’s opinion/interpretation/analysis regarding a specific topic. A term or research paper is longer and uses others’ research to explore or explain a topic.

3 Problem Solution

The solution to the problem consists in adequately implementing the international templates of academic writing for argument, exemplification, exploratory, observation, assessment and descriptive essays, as well as for drafting compare & contrast texts and summaries.

3.1 Argument Essays

This type of essay is the most challenging in academic writing, as it is not a mere compilation of facts, but a demonstrative/persuasive structure in which facts must support the argument itself. The writer must use research, not opinions, to establish a connection between statements & evidence. Argument essays are balanced and consistent presentations, not emotional displays; however passionate about the topic the writer may be, the essay must remain logical. Students have difficulties in argument essays because they fail to fully make their point. That is why it is important to use rational reasoning, to connect each point to the argument itself, and to use credible references and language throughout the essay. Like any academic paper, an argument essay should have an introduction which gives an overview of the topic and contains a clear & rational thesis statement. In this type of essay, the thesis statement is the argument itself. The body of the paper should contain the facts which support the argument, followed by a conclusion which restates the thesis and concludes the argument. Each body paragraph of an argument essay should contain at least one supporting point and a thorough reasoning as to why the point supports the thesis. However, certain instructors ask students to present both sides of an argument, or even include refuting evidence in their paper. The conclusion of an argument essay never includes new information. It only summarizes what has already been presented within the body of the argument essay and connects the thesis statement and the evidence. Since the thesis statement is often considered the most important sentence of any research paper or essay, it should be restated in the conclusion. The conclusion can also include a call to action or it could emphasize the need for further investigation into the topic.

One of the most complicated aspects of writing an argumentative essay is separating the writer’s opinion from the credible facts. Many students find it difficult to keep personal opinions out of their argumentative essays. What a learner may rate as a well-written argumentative essay can receive a poor grade if certain precautions are not taken to ensure that the writer’s opinions do not undermine the
produced text. No actual opinions can be included in the paper, as this type of essay is a compilation of credible facts and research, without opinion-based data. The writer, however, may use an opinion/belief as a springboard for the argument, with solid backup from facts and relevant examples. Such essays are often based on controversial topics. After reading an argumentative essay, the reader might continue to disagree with the writer’s argument, but the point of the paper is not to convince the audience that the author is right, but to present a well-rounded, logical and rational discussion on the topic. In addition to presenting credible evidence backing up the thesis, the author has to ensure that the text has a credible tone, excluding the first person and implementing assertive and definitive statements. Argumentative essays should never sound as if they were lecturing the readers; instead they should present the facts in unemotional ways, so as to appear trustworthy, professional, and, above all, reliable.

3.2 Exemplification Essays

Brief texts using examples to support or defend a thesis, they are a sub-species of position/argument essays, where the writer assumes a particular standpoint regarding an issue or defends an argument by using multiple examples. Many such essays never advance a position/argument, but merely explain it, offering illustrative samples able to provide a multidimensional approach to the explanation/definition. The thesis statement is the writer’s primary point. If writing argumentatively, the thesis presents the author’s argument. If writing to explain, it summarizes the issue requiring explanation, and the main points to be covered in the exemplification. There is no argument in the thesis statement – it is a simple statement of fact. The main body displays thoughtful examples that contribute to the advancement of the thesis statement. Good examples require a paragraph or more; therefore, it is standard format for each example to be developed in its own paragraph/set of paragraphs. Example sources vary depending on the subject of the essay: research, real life events, personal experience, observation, or hypothetical situations. Regardless, every example should be clearly linked to the thesis. The conclusion of an exemplification essay should suggest how all examples as a whole contribute to supporting the thesis. The conclusion does not repeat the thesis statement, but comments on it in a new way.

3.3 Exploratory Essays

In such essays the author starts writing without a particular ending in mind, about any topic or even changes topics so as to cover an intended range of issues. The target is to materialize all personal views on a topic, or to come up with new ideas by brainstorming. This writing process is similar to the ordinary process of thinking people commonly go through. In addition to that, having an exploratory essay written allows critically looking back at the author’s own thought process later, which helps identify past influences and gives more perspective. There are various strategies to employ in developing an exploratory essay: present one idea and a counter-idea in parallel; outline disagreements between ideas; list approaches of comparing and contrasting topics. This kind of text has meanders, since thinking is not particularly straightforward and jumps from aspect to aspect haphazardly, so the style must compensate in clarity. An exploratory essay is not only about the ideas the author has just come up with during the process of writing; it can also be a kind of retrospective review of recent thoughts. For the latter version, the writer starts with the first experiences related to the topic, then progresses chronologically to all the instances when the opinion has changed and explains the reasons. By having the author’s description of the topic as well as his/her self-description, the reader performs a triangulation to get an idea of the overall reality being described.

3.4 Observation Essays

They aim at providing the reader with a clear sensory image of events and circumstances, focusing on one particular item: object, time, or place. The keys to an observation essay are: precise sensory lexis, focusing on senses one at a time, explaining the exact features via most detailed and descriptive language possible, and jumping from impression to impression, so as to give the reader a full account of what it was like. The essay is set at a specific point in time, so the author can pre-devise its structure and can take notes on what to write later, while events unfold. In general, the author is objective, but, sometimes, more subjective impressions on the topic, based on previous personal experiences&memories, can be included, as long as there is a clear separating line between events and their emotional impact. The pre-devised plan also includes potential questions on the topic of the observation essay, with possible relevant answer clues/details recorded at the scene of the event. In the final version of the essay, certain impressions will be left out, for the sake of clarity. The observation essay should contain enough details to transport the reader to the place of the event and leave a lasting impression. Details should not cloud the main ideas, but instead they should support a greater structure that makes the observation essay
easy to read. The language should point to what must be learnt, and must not be an impediment in grasping the essence of the experience.

3.5 Assessment Essays
Writing an assessment essay means writing a critical analysis another author’s essay. If any part of the investigated text stands out or generates questions in the evaluator’s mind, notes should be made, in order to include the controversial aspects in the assessment essay later. The typical assessment grid focuses on:
- use of indicated references
- the purpose of the essay
- possible counterarguments to the writer’s points
- author’s effectiveness in using information
- organization of the material
- paragraphs needing more detail or further evidence

With all these questions in mind, the evaluator reads through the essay very quickly at first, making notes if encountering good/weak sections in need of further evidence, or engaging/boring areas. Then comes the slow pace reading, assessing the approach and how it responded to the requirement. In addition, the assessor determines what the author should have done for improving the essay/better convincing the audience. Writing the assessment essay begins introducing the reader to the work being discussed, and is followed by presenting the thesis statement, which is supported by all subsequent sentences and paragraphs in the essay. Before debating it, a brief overview of the original essay must be summarized in a paragraph. The remaining paragraphs of the body discuss its analysis while providing reasons for the evaluator’s viewpoint. Finally, the conclusion re-states the thesis differently as compared to the introduction, and summarizes the assessor’s views without introducing new information which was not previously discussed in the body of the essay.

3.6 Descriptive Essays
They strive to provide the reader with the most vivid experience and understanding of the item being described, without focusing on statistics and facts. Instead, detailed observations and descriptive lexis are used to portray a place, a person, an object, a memory, or an experience. Regardless of the topic, it focuses on the writer’s perceptions & experiences. Stating the purpose facilitates the selection of relevant information and details to be included. The key action is show, do not tell, and the use of the 5 senses is required: sight, sound, smell, taste, and touch. In the pre-writing stage, the object, the reason, and the specific qualities to focus on need to be determined. The first draft focuses on the five senses and provides as much detail as possible. A powerful introductory paragraph stimulates readers’ interest making them want to read more. A review of the rough draft ensures adequate amounts of memorable details and descriptions, eliminating redundancies.

3.7 Compare & Contrast Essays
The goal is to consider two or more concepts or items, and discuss their similarities and differences. Books/theories can also be compared, to assess converging/diverging aspects in rigorously academic manners. These compositions require more effort in preparing rather than in executing them, as they are intended to provoke creative and analytical consideration, seeking to uncover interesting and nuanced features that bring new insight to the initial targets. Topic selection favors issues having a significant number of features in common. Prior to the first draft, a list of similarities between the chosen objects is generated and next brainstormed to produce an additional list, which will likely lead to more in-depth analyses of the two subjects, allowing further levels of comparison and contrast. The simplest framework for this type of text has one paragraph with all of the similarities and another with all of the differences. However, it is best to envisage a cohesive corpus where certain similarities and differences may be discussed in the same paragraph, by starting with a similarity and then debating how issues differ despite it. The fundamental objective is to reveal the differences between seemingly similar ideas. The introduction features the thesis and generally asserts that the two issues are similar yet quite specific. The conclusion revisits the thesis and summarizes the debated ideas in a final sentence. The goal is not to persuade the reader to choose one of the concepts or items, but, rather, to clearly present relevant factual information on the similarities&differences between the selected items. In order to create a massive impact essay, attention must be focused on the subtle differences that may not be obvious to the reader.

3.8 Summaries
The summary of a lengthy document contains the main points, keeping the overall gist intact, and is meant to be read quickly&easily. Thorough reading, notes on key points and deep text understanding are pre-requisites for drafting an effective summary. The author’s competence is visible in: displaying the relevant data, framework choice and clear approach, alongside with documented presentation of the main purpose. Highlighting key features is an easy means
of narrowing down the amount of information to include in the summary. Reading and note-taking are followed by prioritizing the data, and the author may find that more notes than necessary were taken, and they must be further narrowed down, in order to fit summary dimensions. The goal is to provide readers with an overview of the most important points in the original text, not to insert personal hierarchies or preferences, irrespective of how justified and correct they might be: personal opinions or bias have to be avoided. If the original corpus is divided in sections, the method is to summarize each one and follow the same layout as the original document. Summary length largely depends on given requirements, but it never includes list forms; it uses paragraphs. Unlike essays, summaries do not have distinct introduction, body, or conclusion. They enable basic understanding of the source document without reading it, and provide the opportunity of referring to the original for clarification and detail.

4 Conclusion
This article reviewed the most frequently used essay types in the field of general engineering, and presented methodological steps for professors to follow in their effort to teach academic writing in a foreign language to their undergraduate learners. Future professionals’ real value cannot be properly appreciated in the absence of eloquent both oral and written communication. As well as this, professional development in successful careers cannot exist without well trained & effective academic reading and writing skills.

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