Transcending Science

Objective:

Students will put forward a solution to problem situations based on the integration of competencies in different subjects through research methodology.

Specific Competencies:

- Write about the antecedents of a certain research question, employing quality sources of information in a logical, ethical, and harmonious manner.
- Select adequate research methods in order to answer a research question and/or hypothesis.
- Employ the most suitable technique for the presentation of the results of the research in a written document using the appropriate software for this means.
- Integrate the knowledge, abilities, and attitudes of different areas of knowledge in order to solve problems through the using of the research methodology.

Specific Guidelines:

The projects should be presented by teams formed by a minimum of three and a maximum of five members from 10th to 12th grade. We encourage these teams to be formed by participants of different semesters and by females and males. Schools may register two projects. All projects must be presented in English. There will be two types of projects: natural and social sciences. Each school can enroll up to two teams per category.

Phases:

1. Selection Phase

   For this phase, there will be an investigation problem presented for natural and social sciences, which will contemplate the possibility of integrating subjects of all semesters. Such problem will be limited through general and specific objectives. The product of the research at the selection phase will be a research poster in PDF format ("*cartel científico de investigación*"), and a formal presentation in a video. The research poster and the presentation should be aligned to the standardized format called IMRD (Introduction, Methods, Results, and Discussion) (García & Medina, 2013).

   The research poster should follow the "Guía cartel de investigación", which can be found in the Annex 8 of this call. The formal presentation will consist of a video (8-10 minutes long). Every member of the team must be part of the formal presentation.

   For this phase, teams should present the research poster (in PDF format), formal presentation (in video) and PDF document with the references cited with APA format, 7th edition.

   The Academic Committee Premio Lidera will publish the topic, objectives, and research questions on September 30th, 2024.

2. Final Phase

Students should make a formal presentation in front of an academic jury and answer any queries.

Assessment:

The jury will be formed by researchers with knowledge about the investigation topic. Their decision is final. The jury reserves the right to disqualify any project which does not meet the established requirements guidelines or if they detect any plagiarism, partial or total.

Selection Phase.

The jury will assess each poster and formal presentation based on the following:

1. Research poster (40 points of the evaluation)
   a. Poster organization: Use of the IMRD structure. (1-6)
   b. Graphic quality: The poster elements should be legible and caring about the aesthetics. (1-5)
   c. Synthesis skills: Participants should be able to summarize their ideas. (1-6)
   d. Clarity: Poster should use precise language. (1-6)
   e. Scientific language: Scientific language is used at all times. (1-6)
   f. Communicative effectiveness: The poster will be self-explanatory. (1-6)
   g. Spelling and grammar. (1-5)

2. Formal presentation (60 points of the evaluation)
   a. Time limit. (1-4)
   b. Clarity of information. (1-4)
   c. Use of the IMRD format. (1-4)
   d. Cooperative work: Balanced participation of all members of teams. (1-4)
   e. Personal appearance and vocabulary. (1-4)
   f. References, tables, and figures: Use of APA format. (1-4)
   g. Argumentation: The existence of a profound analysis of the literature where the team compares authors and theories and establishes their position. (1-4)
   h. References: The presentation uses at least 11 or more sources of information. 50% of these sources must have been published recently (Within the 10 years immediately preceding the publication of this call). (1-4)
   i. Variety of sources: At least four types of sources are used: Web, journal articles, newspapers, books, etc. (1-4)
   j. Type of sources: The sources must be primary and secondary. (1-4)
   k. Methodology: The techniques and methods of research are coherent with the research problem. (1-4)
   l. Results presentation: The presentation should be clear, succinct, and using academic jargon. (1-4)
   m. Analysis of results and conclusions: The teams must employ different strategies of analysis which permit them to reach relevant conclusions. (1-4)
   n. Findings: Research questions and objectives are addressed. (1-4)
   o. Synthesis and fluency. (1-4)
   p. Resource quality. (1-4)

Final Phase.

The final presentation will be judged as follows:

1. Presentation (60 points of the evaluation):
   a. Time limit. (1-4)
   b. Clarity of information. (1-4)
   c. Use of the IMRD format. (1-4)
   d. Cooperative work: Balanced participation of all members of teams. (1-4)
   e. Personal appearance and vocabulary. (1-4)
   f. References, tables, and figures: Use of APA format. (1-4)
   g. Argumentation: The existence of a profound analysis of the literature where the team compares authors and theories and establishes their position. (1-4)
   h. References: The presentation uses at least 11 or more sources of information. 50% of these sources must have been published recently (Within the 10 years immediately preceding the publication of this call). (1-4)
   i. Variety of sources: At least four types of sources are used: Web, journal articles, newspapers, books, etc. (1-4)
   j. Type of sources: The sources must be primary and secondary. (1-4)
   k. Methodology: The techniques and methods of research are coherent with the research problem. (1-4)
   l. Results presentation: The presentation should be clear, succinct, and using academic jargon. (1-4)
   m. Analysis of results and conclusions: The teams must employ different strategies of analysis which permit them to reach relevant conclusions. (1-4)
   n. Findings: Research questions and objectives are addressed. (1-4)
   o. Synthesis and fluency. (1-4)
   p. Resource quality. (1-4)

2. Jury queries (30 points of the evaluation)
   a. Argumentation: Literature-based arguments are provided (not opinions). (1-6)
   b. Ability to answer: Ability to address any questions made by the jury. (1-6)
   c. Teamwork: All team members participate in an active manner. (1-6)
   d. Academic language: Answers are given using appropriate academic jargon. (1-6)
   e. Body language: Participants show security while answering the queries. (1-6)

3. Use of English (10 points of the evaluation)
   a. Participants show fluency in English. (1-7)
   b. Correct use of the English language in the formal presentation (spelling, grammar, mechanics, punctuation, etc.). (1-3)