Inter-Disciplinary Communication on
Trans-Disciplinary Concepts, Notions, or Topics
In the Context of the <u>Inter-Disciplinary Communication on Transdisciplinary Concepts, Notions, or Topics</u>

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Purpose

"Research", "education" and how these may be effected are arguably among the most critical subjects in discussing the integrity of modern societies. Yet, understanding the true meaning and scope of these can limit their prioritization and relegate them to just another job to be done. Upon introspection, however, they are the essence of who we should be, reflecting the Classical Greek inscription on the Temple of Apollo, the darker Socrates' adage uttered in Plato's Apology, "The unexamined life is not worth living." Here, we open a conversation that those forerunners of personal identity clarification could only dream about.

In this article, we briefly describe a program designed to implement projects focused on fostering interdisciplinary communication on transdisciplinary concepts, notions, or topics. Here, "notion" is a set of related or relatable set of senses of a word (denotations and connotations) and/or concepts This set may be a fuzzy set. (Callaos, The Notion of 'Notion', 2013)

To achieve this objective, we propose using a combination of *Participatory Action Research (PAR)* and/or *Participatory Action Learning (PAL)*, with the potential inclusion of Research Crowdsourcing. The term "participatory" is employed here in both its senses: participation in the developmental *process* and in the *outcome*. "Collaboration" is oriented more to task-goals. Consequently, participants who contribute to knowledge creation, generate insights, or foster understanding will gain access to other participants' contributions. They may also submit articles for inclusion in a final presentation and subsequent publication.

We chose Participatory Action Research and/or Participatory Action Learning over Collaborative Action Research and Learning because our focus is on the **academic community** and its engagement and potential understanding.

Participatory methods provide a better framework for addressing the specific issues faced by the academic community, which may not be fully addressed by collaborative approaches.
Moreover:

1. Participatory approaches emphasize involvement in both the process and the outcome, whereas collaboration may not always include this dual focus.
2. Participatory methods align better with the community, in this case the academic community, with the objectives of fostering individual as well as collective contributions to academic knowledge production, learning. and understanding.

For the publication process, we intend to use a hybrid peer review methodology combining:

1. *David Kaplan's Peer Reviewing Methodology* (How to Fix Peer Review, 2005): This approach involves non-anonymous reviews conducted by at least one colleague of the author.
2. *Participatory Peer-to-Peer Reviewing (PPPR):* Each author will have access to all submitted papers and is required to review at least one of them. [Callaos, (Participative Peer-to-Peer Reviewing: PPPR (Version 2, 2024)]

This means that participation extends throughout the entire process. Specifically:

- All authors will have access to all submissions, allowing intellectual enrichment and the potential inclusion of references from these contributions.
- All authors will have access to the final versions of all papers before publication.

This approach ensures that interdisciplinary communication occurs not only during the process but also through the publication itself, making it accessible to any scholar or student from any discipline.

First Project

The first project is designed to clarify the meaning(s) of "research" and "education" two of the most transdisciplinary notions Since both, are, implicitly or explicitly, related via cybernetic relationships, then anything related to them would also be included in this project. So potential topics may be the following:

- *Notion Research* - Its objectives and/or means of research. What is, and/or should be, "research", research methods or methodologies? Should research experience be subject of practice reflexivity?. What defines the objectives of research across disciplines? (For consideration, "research" is inextricably bound with "education" (Horne J. , 2019)

- *Notion "Education"* - Its objectives and/or means of education. What is, and/or should be, "education"? What are the education methods or methodologies, etc.? *(NB: It should be noted that education is not training, the former pertaining to seeking knowledge and understanding,, the latter with working with what is already known.* (Horne, A Philosophy of Learning, 2015)

- *Notion "Research Education"* - Does it exist formally, or just informally? Why? Should it be reduced to learning by doing? If research education should be experiential, collaborative, interdisciplinary, and focused on developing critical thinking and inquiry skills, while also considering the broader societal implications of research, shouldn't we get the support from philosophers like John Dewey in his *Democracy and Education?*. Should research education be complemented by reading or listening to presentations of practitioners and/or theoreticians? Why? Is reflexive practice, essential in Second Order Cybernetics be applied to research activities and hence provide additional input to Research Education.

- *Notion "Meta-Research"*: Should there be 1) research on research? 2) education to potential educators graduates or earning PhD not in the field of Education? Why this is not practiced? Did the PhD students have an implicit education when s/he was educated? Is this informal education adequate to educate others? For the first, someone may ask are we courting a "set of all sets" conundrum, where we are searching for that which supports turtle holding up the Earth? The answer would be cybernetic relationships would exist in a temporal and dynamic world. We should take care applying Logic which is atemporal to a dynamic reality. The second speaks directly to transdisciplinary knowledge. Since logical thinking is part of human thinking should we reduce the latter to the first? What about the creative analogical thinking that provides input to logical thinking?

Second project

Once the substrate of "research" and "education" has been laid, its superstructure is the set of potential topics of "research and education".

Transdisciplinary topics according the above paragraph include but are not limited to those listed below. This is because different disciplines may have different topics or questions that may generate intellectual efforts for answering them. The larger the plurality of topics related to disciplines, intellectual and/or social cultures, the larger is the specter of interdisciplinary communication understandable in other disciplines.

The notion of education includes formal, informal and non-formal education, as well as higher education and previous ones. There is much to learn by applying analogical thinking, observing and analyzing how a mother educates her recently born baby. One of the several things we may conclude is that the mother learns the facial, auditive, and touching languages of her baby in order to have something in common with the baby and, hence, to communicate with her baby and share what is not common yet, as for example her verbal language. See (Callaos, Education and Motherhood, 2023); which is a very short essay of 1550 words.

At the conclusion of the process, participants who have engaged in both phases (summarized below) will have the option to author an article. If accepted, with no Article Processing Cost (APC)[i] the article may:

Since these notions are implicitly or explicitly connected through **cybernetic relationships**, any topic exploring their interconnections may also be included in this project. Potential topics may include the following or any combinations of them.

1. *The Notion of Research*
   - What are the objectives and/or means of research?
   - What is, and/or what should be, "research"?
   - What constitutes research methods or methodologies?
   - Should research experience be subject to **practical reflexivity**? If so, how?

2. *The Notion of Education*
   - What are the objectives and/or means of education?
   - What is, and/or what should be, "education"?

- What methods or methodologies are most effective for education?
- What are the methods or methodologies of education, and how should they be applied?

3. The Interplay Between Research and Education
- Does a formal field of **Research Education** exist, or is it merely informal? Why?
- Should Research Education be limited to **learning by doing**, or should it include complementary approaches such as:
    - Reading theoretical and empirical studies.
    - Listening to presentations by practitioners and/or theoreticians. Why or why not?
- Should there be:
    1. *Research on research*?
    2. *Education for potential educators,* including graduate students or PhD candidates outside the field of Education?
        - Why is this not widely practiced?
        - Did PhD students receive implicit education during their own studies?
        - Is this informal education sufficient to prepare them for educating others?

3. Research Methodology and Practice
- What are the ethical considerations in research?
- How do disciplinary and transdisciplinary methodologies influence the outcomes of research?
- What role does collaboration play in improving the quality of research?

5. Educational Philosophy and Pedagogy
- What philosophical foundations underlie current educational practices?
- How do different educational methodologies (e.g., inquiry-based learning, experiential learning) support diverse learning objectives?
- How can transdisciplinary education address global challenges, such as sustainability or social equity?

6. Research as Education and Education as Research
- In what ways can research be considered an educational process?
- How can education benefit from adopting research-oriented approaches (e.g., action research, participatory learning)?
- What are the implications of framing education as a lifelong research endeavor?

7. Digital Transformation in Research and Education
- How has technology reshaped research methodologies and educational practices?
- What is the role of open-access platforms and digital tools in democratizing knowledge?
- How can cybernetics inform the design of digital learning and research systems?

8. Transdisciplinary Integration
- How can research and education collaboratively address complex societal problems?
- What are the challenges in integrating research findings into educational curricula?
- How do transdisciplinary approaches enhance both research and education outcomes?

9. Cybernetic Relationships
- How do feedback loops between research and education make any of them more effective or drive methodological or technological innovation?
- Can the cybernetic perspective help unify theoretical and applied approaches in both fields?

10. Technological Impact
- The role of AI and machine learning in transforming research methods and/or, peer reviewing, and/or educational practices.
- How digital tools are reshaping the dynamics of research education?
- How about Science Research crowdsourcing?
- How about Education Research crowdsourcing?

11. Interdisciplinary Research Education
- How can interdisciplinary PhD programs better integrate education and research methodologies?
- What frameworks exist for collaborative research education across diverse fields?

12. Societal Relevance
- How can research education address global challenges (e.g., climate change, inequality)?
- The impact of research education on societal innovation and policymaking.
- The ethical implications of research education (e.g., power dynamics in academia).
- How to foster responsible research and education practices in interdisciplinary settings.

From the above, a conference can emerge that can initiate the much-needed public discourse about the meaning of knowledge, how we might obtain it, and to what end it should serve. Our participation will assume a novelty and relevance in this conflict-ridden world teetering on the edge of oblivion.

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End Notes

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[i] Each author will no Article processing Charge because this project is supported by a private grant specifically designated for this project. Consequently, the number of potential authors is limited, while on of the aims is maximizing:

1. the diversity of disciplines (intellectual and/or epistemological cultures), and
2. the representation of different countries (human cultures) among the participating authors.