

THE ROLE OF INTERDISCIPLINARY COMMUNICATION IN TEACHING PHYSICS

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<i>A B S T R A C T</i>	<i>KEYWORDS</i>
<p>This article will talk about the important role of interdisciplinary communication in teaching physics. Physics, a multidisciplinary specialty, requires effective communication between different disciplines to increase students ' understanding and appreciation of its concepts. Raising the gap between physics and other sciences, interdisciplinary dialogue illuminates real-world programs and shapes critical thinking, problem-solving skills, collaboration, and teamwork. This article highlights the importance of integrating interdisciplinary approaches in physics education to give students a holistic understanding and prepare them for the complexities of the scientific challenges they may face in their future endeavors.</p>	<p>"physics", light, trajectory, hypothesis, temperature, absolute, relative, field, radiation, radioactivity, rocket, biophysics.</p>

Introduction

Physics is a multidisciplinary field that bridges different areas of knowledge, making interdisciplinary communication a necessary aspect of teaching the subject. Effective communication between physics and other disciplines not only enriches students ' understanding of physics concepts, but also forms connections with real-world applications. This article explores the important role of interdisciplinary communication in teaching physics.

1. Making the difference between physics and other sciences:

Physics intersects with many scientific disciplines such as chemistry, biology and engineering. By establishing an interplinarian dialogue, teachers can illuminate the connections between physics and related fields. Showing how the principles of physics apply to other disciplines is of interest and expands the reader's understanding of the wider scientific landscape.

2. Raising the importance of the real world:

Interdisciplinary communication brings the concepts of physics to life by demonstrating their practical developments in various fields. For example, through collaboration with the engineering or environmental science departments, physics teachers can show how concepts such as energy conservation or thermodynamics are used when designing efficient systems or analyzing environmental impacts. The implementation of these connections will help students see the relevance and concrete application of the principles of physics outside the lesson.

3. Encourage critical thinking and problem solving skills:

Physics problems often have complex real-world applications related to several disciplines. By incorporating interdisciplinary dialogue in the educational process, learners can be encouraged to think critically, approach problems from different perspectives. These skills are essential to overcome complex difficulties and find modern solutions both inside and outside the field of physics.

4. Collaboration and teamwork capture:

Interdisciplinary dialogue facilitates collaboration and teamwork among students. By encouraging students to work together, share knowledge, exchange ideas from different disciplines, educators create an environment where different perspectives are valued. Collaborative projects that combine physics with other disciplines help students appreciate the benefits of interdisciplinary approaches and develop the necessary teamwork skills.

Interdisciplinary engagement plays an important role in teaching physics by encouraging a broader and more perfect understanding of the subject. The main areas of interdisciplinary engagement role in teaching physics are as follows:

1. Integration of other disciplines. Physics is closely connected with other scientific disciplines such as mathematics, chemistry, biology, engineering. Interdisciplinary engagement allows the integration of concepts, theories and techniques from these disciplines, providing a more holistic approach to teaching physics. Students can see the interdependence of different disciplines and how they contribute to a deeper understanding of physical phenomena.

2. Real-world connection: interdisciplinary engagement helps to highlight the real-world possibilities of physics. By incorporating examples and practical training from other disciplines such as the environment, medicine or technology, students can see how the principles of physics are used to solve practical problems. This approach increases communication and motivation with students by demonstrating the relevance of physics in different contexts.

3. Critical thinking and problem solving skills. Interdisciplinary approaches encourage students to think critically, approach problems from multiple perspectives, form problem-solving skills. When students research the connections between physics and other disciplines, they come across various methodologies and approaches to analyze and solve complex problems. This shapes creativity and increases students' ability to overcome real-world challenges.

4. Increasing scientific literacy: interdisciplinary engagement helps foster scientific literacy among students. By integrating physics with other disciplines, students gain a broader understanding of scientific concepts, research methods, and scientific thinking. This interdisciplinary perspective encourages students to critically evaluate scientific data, build science connections, and develop well-developed scientific literacy.

5. Career opportunities: an interdisciplinary approach to teaching physics can broaden student horizons and expose them to different career opportunities. By illuminating the interdisciplinary nature of physics, students can see how their physical knowledge and skills can be applied in various fields such as engineering, materials science, renewable energy, data science, etc. This expands their career options and encourages lifelong learning.

Conclusion:

The integration of interdisciplinary communication in teaching physics is essential for students to have a holistic understanding of the subject and its real-world implications. By raising the disparity between physics and other disciplines, students gain a broader perspective and see practical

applications of the principles of physics. Interdisciplinary communication also fosters critical thinking, problem solving, collaboration, and teamwork skills. Establishing interdisciplinary communication as learners is necessary to inspire curiosity, build creativity, prepare students to overcome complex difficulties in their future scientific work.

In conclusion, interdisciplinary engagement in teaching physics increases students' understanding, relevance and application of the principles of physics. It shapes critical thinking, problem-solving skills, and scientific literacy while broadening career perspectives. By integrating physics with other disciplines, students develop a more perfect and interdisciplinary approach to scientific inquiry.

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