

Methodology for Developing Environmental Skills in Senior Students during Vocational Training in General Secondary Education Institutions

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Abstract: This article explores the methodology for integrating environmental education into vocational training for senior students in general secondary education institutions. It outlines the pedagogical strategies for fostering environmental awareness and sustainable practices within vocational skill development. The research highlights the importance of interdisciplinary approaches, hands-on activities, and project-based learning in forming environmentally responsible behavior among youth.

Keywords: Environmental skills, vocational training, sustainable development, secondary education, project-based learning, ecological awareness, interdisciplinary approach, practical competencies.



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In the modern world, environmental challenges demand proactive educational interventions, especially in preparing the future workforce. Senior students in secondary schools who are engaged in vocational training must acquire not only practical job skills but also environmental literacy. Integrating ecological knowledge and practices into vocational education ensures that students become competent professionals who also act as guardians of the environment.

Vocational education in secondary schools is not only a means to prepare for employment but also a platform to instill sustainable values and environmental consciousness. This article examines effective methodologies for fostering ecological skills in the context of vocational education.

The integration of environmental education into vocational training is rooted in constructivist learning theory, which emphasizes active, contextualized learning. According to UNESCO, Education for Sustainable Development (ESD) should be embedded across all disciplines, including vocational education. Key theoretical foundations include: Experiential Learning (Kolb, 1984): Emphasizes learning through experience, which is essential for ecological projects and fieldwork. Interdisciplinary Approach: Combines environmental science with technical vocational subjects. Social Constructivism (Vygotsky): Encourages collaboration and real-world problem solving, ideal for environmental project-based learning.

To effectively develop environmental skills during vocational training, the following methodologies are proposed: Project-Based Learning (PBL) Students participate in long-term, practical projects that solve real ecological problems. For example: Designing eco-friendly home appliances in a technology class. Creating school gardens using compost made in chemistry classes.

Integration of Ecological Content into Vocational Subjects Curricula should include topics such as: Waste management in carpentry or construction classes. Energy conservation in electrical training. Water conservation in agriculture or plumbing modules.

Field-Based Learning Excursions to industrial sites, recycling centers, and natural reserves allow students to: Observe environmental issues firsthand. Conduct mini-research and apply ecological practices.

Simulation and Role Play Creating mock environmental audits or role-playing as environmental inspectors helps: Develop analytical and reporting skills. Foster responsibility and critical thinking.

Collaboration with Local Industries Partnering with environmentally-conscious companies for: Internships. Joint eco-projects. Mentoring opportunities.

The role of multimedia in the harmony of education and upbringing is important. The personal maturity of the student requires speed and ingenuity in order to easily find a way out of difficult situations. These qualities are formed in the process of effective use of direct multimedia samples.

This, in turn, will open the way to solving existing problems in the system of work on the study of compulsory subjects.

Multimedia reflects all the tools available in the process of presenting information. The systematic use of information technology is an important factor in the development of students. The development of attention in the classroom using multimedia tools increases the student's activity, curiosity and curiosity, the ability to introspection.

American researchers L. J. Skibb, Susan Heifmeister, Angela M. Chesnut call multimedia technologies "developing evolution" and explain their thesis with the following arguments. Information technology reforms today can only be understood with quick and creative thinking. Although changes in this area are typical of the personal computer industry, computers and software will be immediately replaced by new, cheaper and faster technologies. The authors emphasize that multimedia is not just a combination of computer and software systems, but a mixed technical process, interpreting it as "a combination of platforms, means of communication, people and cultural influences" However, sometimes the nature of this system may be different. Multimedia is user-friendly, constantly changing the order of uniformity. J. Baudrillard says: "A person works in close cooperation with a very functional interaction: if the world of people is imbued with a technical purpose, then technology itself will be watered with a human purpose for good and evil.

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