ADULT LITERACY

FROM CREATING JOYFUL LEARNING EXPERIENCE INTO ACTIVE CITIZENSHIP

Trainer's Toolkit –

Methods for Joyful Teaching

Inquiry-Based Science Education –IBSE

Lifelong Learning Programme

1.Inquiry-Based Science Education -IBSE

1.1. Description

The inquiry method is a method for active learning. This approach imitates scientific research that is characterised as a multifaceted activity that involves observations; formulating questions; consult books and other sources of information, to know what is already known; planning research; review of knowledge in the light of experimental evidence; use of tools for analysis and interpretation of data; formulating answers, explanations and predictions and communication of results. Scientific research requires identification of assumptions, use of critical and logical thinking, and consideration of alternative explanations in shaping responses to questions.

Therefore, the teaching based on research (inquiry, research) encourages students to develop their own understanding of the fundamental scientific ideas, through direct experience with the substance, by consulting books, other resources and expert consultation and through argument and debate among themselves. This whole process should take place under the supervision of teachers / trainers.

Communicate and justify explanations of the research, which relies on smaller or larger guidance from the teacher / trainer.

IBSE activities, built to include experiences of research projects involve students in important trials with “hands-on” experimental procedures and “minds-on” teaching students to think. Other benefits of IBSE method include the enhancement of understanding rather than memorising, and teach students to build a foundation of concrete knowledge through exploration, dialogue and argumentation. The IBSE method is a more dynamic method using a cooperative and cumulative approach to knowledge, and promotes not only knowledge of content, but also considers the values and the nature of science.

1.2. Practical exercises / How did you use it for the adult literacy project?

The use of experimental teaching has decisive impact on student learning with low education and literacy difficulties, developing the ability to think for themselves, to discuss and accept different ideas and results that lead to the acquisition of new knowledge. As a strong point, the experimental work is an effective way to provide the student contact with study subjects, materials and multidisciplinary problems.

However, the experimental activities should not only promote the manipulative aspect - which can be a weak point of this method - but also the cognitive and socio-emotional skills.

There are a number of very interesting practical exercises, able to demonstrate the degree of learning achieved.

1.3. Lessons we learned / Recommendations

Positive and negative experiences during the using this method

Teaching methods based on research and testing are an important means to promote, and scientific development and to increase the confidence of students to deal with scientific issues.

I think this training meets current needs that society demands, because the school values, giving it a major role in the construction of scientific knowledge, and allowing the formation of young people with an open and flexible mind, capable of dealing with change constant that currently companies are subject.

Participation in these activities helped students to become more critical and involved citizens.

Thus, once again, it was possible to verify the use of inquiry teaching methodology, during learning.

It's appealing and awakens curiosity for the phenomena of the surroundings, and may combine with other methods and approaches to teaching;

- Involves students in the discipline, manifest interest and motivation;

- Develops investigative skills (predict, observe, record, formulate hypotheses, identify, operationalize and control variables, interpreting data, planning / conduct experiments, communicate);

- Acquire largest scientific vocabulary (skills in communication);

- Facilitates understanding of concepts and the promotion of logical reasoning;

- Develop a positive attitude towards science.

It should be noted the great interest and commitment shown by the students in performing all activities, with special emphasis on the study visits and the presentation of the work.

1.4 Sources / Bibliography

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