Project oriented learning as a communication tool of environmental sciences in the community of Soshanguve - a case study

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Introduction

- Project Oriented Learning - involves communication between group members, tutors and the community
- Solve or address real-life problems
- Communicate and transfer knowledge, i.e. student centred learning
Project assignment

Part of the subject Water Treatment Technology 3

Project assignment: contact a school in the Soshanguve area and develop a programme to communicate to a group of learners various water supply, water treatment methods, water quality and sanitation.
Assignment objectives

- Project management skills
- Life skills
- Acquiring, applying and disseminate/communicate knowledge
- Taking control of own learning experiences
Planning phase

- Contact Reitumetse High School
- Grade 11 Physical Sciences learners
- Venue and time
- Resources and field kits
- Set up a programme
- Transport and refreshments
Implementing method 1

- Presentation by each student group member
- Water treatment; water quality; water pollution; sanitation
- Interaction - questions, discussion, mini debates
Implementing method 2

Field experiments - investigating acid rain; soil and water pH; temperature, nutrients, heavy metals, and the microbial quality of tap water

Hands on approach followed - collected water themselves and perform experiments themselves
Implementing method 3

- Pamphlets on water treatment distributed to each learner
- Guide learners through these pamphlets
- Discussion and question session on the relevant material
Assessment/evaluation

- Students evaluated on written report and oral report presentation to peers (video made of the presentations)
- Learner feedback - pre and post test on basic knowledge transferred/instilled
- 10 questions on basic water and sanitation issues
Assessment/evaluation

- Students achieved all set project objectives
- Learners - increase in basic knowledge (from 15% to 86%)
- Letter from principal - “fruitful”; “explain to their classmates”; “impart knowledge to friends and families”
Conclusion

- Work well as communication tool for environmental sciences - get students and learners talking
- Transfer knowledge through communication
- Impart life skills, communication skills, project management skills
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