I617 현장체험학습을 통한 고등학생들의 환경문제에 대한 태도변화 연구 -하천탐사 활동을 중심으로-

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고등학교 학생들의 환경 문제에 대한 태도 변화를 위한 하천 탐사를 통한 현장 학습 체험 프로그램을 개발하였으며, 그 프로그램의 태도 변화에 효과에 대하여 조사하였다. 이에 대한 연구 결과는 다음과 같다.

1. 하천 탐사 프로그램은 고등학생들의 환경 문제에 대한 태도 변화에 효과적인 것으로 나타났다($P < .05$).

2. 하천 탐사 프로그램은 환경 문제의 태도 변화에 대하여 인식 영역과 실천 영역에서 효과적인 것으로 나타났다($P < .05$).

3. 환경 문제에 대한 인식 영역, 실천 영역 및 전체 태도 점수간에 유의미한 상관 관계가 있는 것으로 나타났다($P < .05$).

I618 Development of a Model of CD-ROM to Improve Student Creativity and Inquiry through an Introduction of Updated Life Science into Secondary School Biology

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The research aimed to develop a model of CD-ROM title production which improves student creativity and inquiry through an introduction of undated life science to secondary school science curriculum. Topics and background stories of research in updated life science can be introduced as attractive lesson themes to improve student creativity and inquiry. The use of CD-ROM provides students with learner-centered learning opportunities, information in width and depth, and fascinated content presentations of quality graphics, diagrams, pictures, etc. The components of the CD-ROM production include: 1) selection of inquiry and creativity based teaching-learning strategies for web-based network system; 2) use of Bio-Cosmos OHP film files (http://gic.kyungpook.ac.kr/biocosmos); and 3) development of a new design of CD-ROM and a support system of web-based network. Major contents of updated life science for the CD-ROM production are categorized into stories related to discovery, principles and theories of discovered contents, summary of the contents, and explanations. Relevance of contents to students and teacher interactions with students are also emphasized. CD-ROM contents are organized to maximize student learning opportunities based on inquiry and creativity. Technical features of the CD-ROM production include: 1) use of software, PhotoShop, Director, etc; 2) presentation of contents over the color background; 3) classification of the contents into General Science, Biology I, and Biology II; 4) hyperlinks to related contents and web sits. A follow-up study is suggested to examine the effectiveness of CD-ROM applications for biology courses and changes of student creativity and inquiry.