ABSTRACT

Tiarma Ayu Lestari Matondang, IDN 4213141044 (2026). Analysis of the Utilization of Teaching Materials Based on Information and Communication Technology on the Material of the Reproductive System of Students in Class XI Senior High School 12 Medan.

This study aims to analyze the information and communication technology-based teaching materials utilized by biology teachers during the teaching and assessment process for the reproductive system in grade XI of SMA Negeri 12 Medan, as well as the obstacles experienced by teachers and students in their utilization. This study used a qualitative descriptive method. The subjects consisted of one biology teacher and 36 grade XI F4 students. Data collection techniques included observation, questionnaires, interviews, and documentation. The results indicate that the utilization of information and communication technology-based teaching materials has been implemented in the learning and assessment processes. During the learning process, biology teachers utilize animated videos as the main teaching material, displaying visualizations of abstract concepts in the reproductive system. For assessment, biology teachers choose to use the Quizizz platform to interactively measure student understanding. The use of technology-based teaching materials is considered capable of increasing student interest, engagement, and understanding. However, several obstacles were identified, including inadequate supporting school facilities, inadequate student electronic devices, an unsupportive learning environment, and a lack of creativity in using the latest technology-based teaching materials.

Key Words: Teaching materials, information and communication technology, reproductive system

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