Development of a Mobile Observation Support System for Students: FishWatchr Mini

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Background and Objectives

- Cooperative Activity in Classroom (Presentation Exercise)
- Objectives of This Study
  - To develop FishWatchr Mini (FWM) to solve the problems
  - To validate the effectiveness of FWM in a presentation exercise
- Characteristics of FWM
  - Running on the mobile devices of students
  - No software installation on the devices
  - Automating as many operations as possible except annotation
  - Students can visualize their annotations right after the exercises
  - Easy to export annotation data to VAS synchronizing with the video

Problems in Introducing VAS in Classrooms

- Preparation of devices for real-time annotation systems
- Burden of learning the system
- Means of using annotation results

Development of FishWatchr Mini

- System Structure
- Problems in Introducing VAS in Classrooms
- System Structure

Introduction to Presentation Practice

- Conditions
  - Two class periods (90 min + 90 min) in a university
  - 13 students (divided into 5 groups)
- Procedures
  1. Presentation exercise
     - A group conducts a 10-min presentation.
     - Other students make annotations (six evaluation points) on the presentation with FWM
     - All groups perform exercises.
  2. Reflection
     - A teacher synchronizes all annotation data with the video using FW.
     - Each student reflects on his/her group’s presentation using FW.
- Results
  - No significant problem occurred during classes
  - 838 annotations by 13 students

Visualization of Annotation Data

- Summary Histograms
- Time-Series Histogram

Importing Annotation Data to FishWatchr (VAS)

- Synchronizing annotation data with the video by dragging and dropping the folder that includes them
- PC application written in Java
- Editing the annotation data
- Making new annotations

Video annotation systems (VAS) must be effective for such activities

Development of FishWatchr Mini

- Introduction to Presentation Practice
- Development of FishWatchr Mini
- Visualization of Annotation Data
- Importing Annotation Data to FishWatchr (VAS)

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