



Project Overview

- The transfer project T1 links fundamental research in computational linguistics of A4 to a real-life educational setting, in collaboration with the publisher Diesterweg.
- Goal: Turn a current workbook for 7th grade English in Gymnasium into an online workbook offering
 - immediate, interactive feedback to learners
 - automatic assessment of content and form in context

Phase 1: Data Collection

- Developed online version of CamdenTown 3 workbook
 - FeedBook: 55 short answer & fill-in-the-blank tasks
- First version is designed to collect learner answers & manual, summative teacher feedback
 - Data collection will start mid-October in four school classes throughout Germany
 - Empirical basis for NLP development in Phase 2

The FeedBook (<http://purl.org/ical/feedbook>)

- Multi-layer web application developed in Java using the Google Web Toolkit (GWT)
- FeedBook currently provides:
 - Lobby for exercises selection → Figures 1, 2
 - Student interface providing fully functional online version of all exercises → Figure 3
 - Teacher interface supporting grading and feedback (annotations, comments, star rating) → Figure 4
 - Result interface allowing students and teachers to inspect feedback → Figure 5

Phase 2: Supporting interactive learning

- Extend FeedBook to provide immediate individual feedback scaffolding the learning process of the student
- Analysis should take into account learner answer and
 - learner model: individual interaction history, global learner characteristics (L1, level)
 - instruction model: task-characteristics, pedagogical goal, developmental sequences
- To support incremental solving of exercises we need
 - detection, classification, and prioritization of errors
 - generation of feedback in line with learner and instruction model
- support synergy with A4 to improve
 - CoMiC analysis and generalizability
 - FeedBook system using A4 diagnostic information

Phase 3: Evaluation and Outlook

- Real-life evaluation in eight classes (200-240 students) to empirically test impact of online workbook
- evaluate learning outcomes comparing online workbook with/-out immediate feedback (within-class randomization)
- Provides valuable real-life evaluation for
 - computational linguistic research: content and form assessment, domain adaptation, robustness
 - instructed SLA: impact of immediate focus-on-form and scaffolding in written language context
- First project integrating NLP analysis into real-life education in schools in Germany

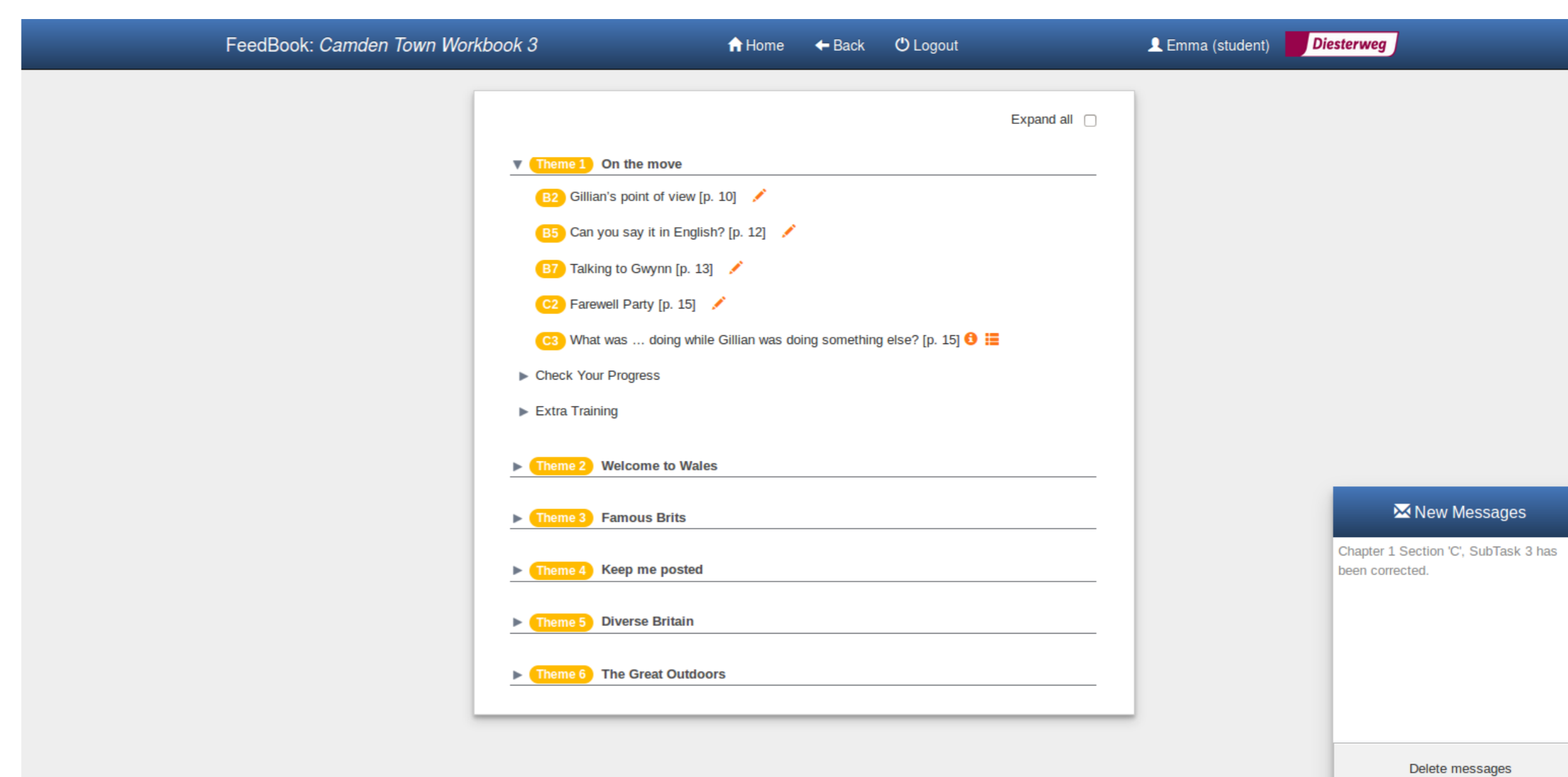


Figure 1: Lobby Interface (Student)

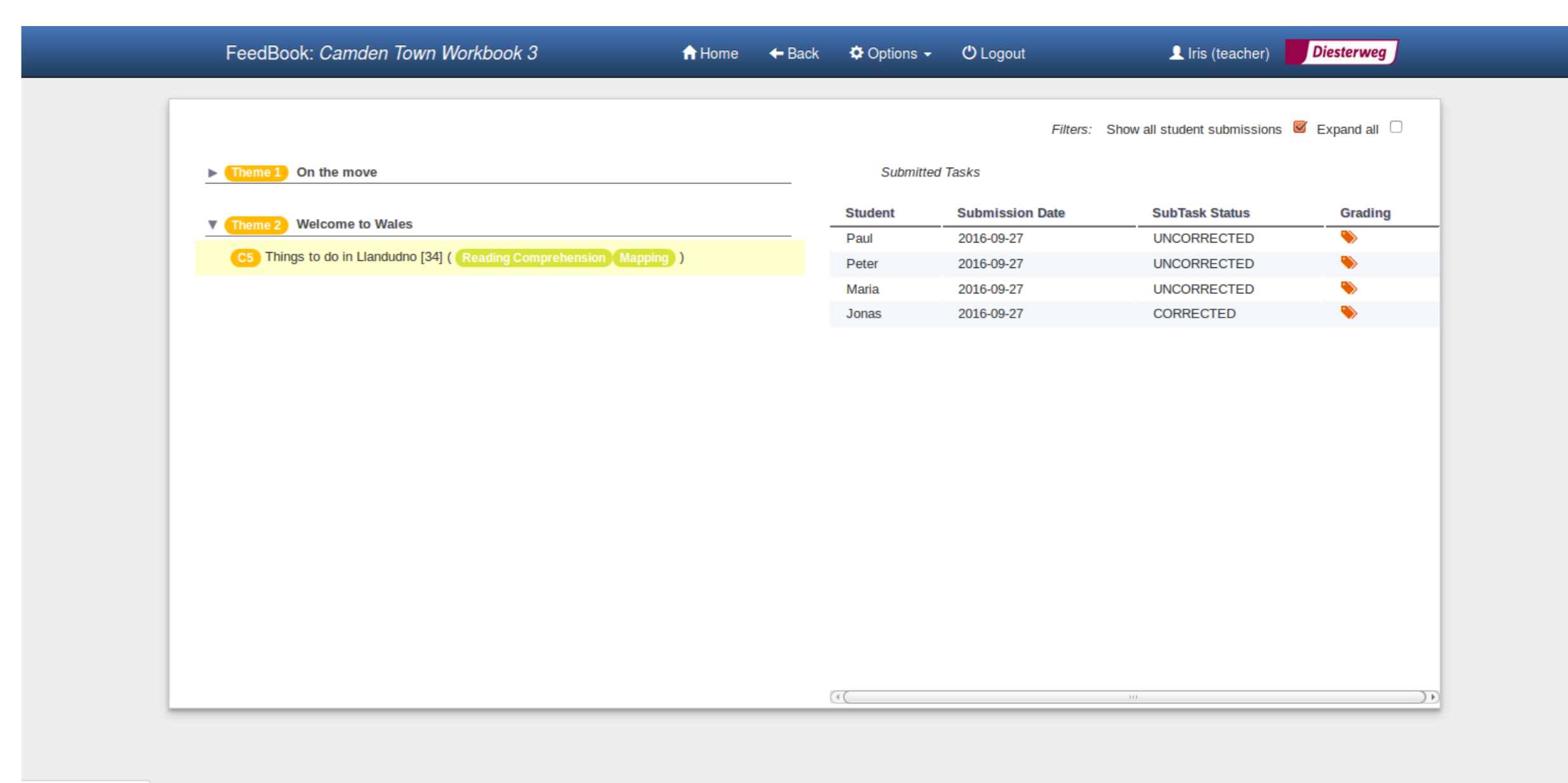


Figure 2: Lobby Interface (Teacher)

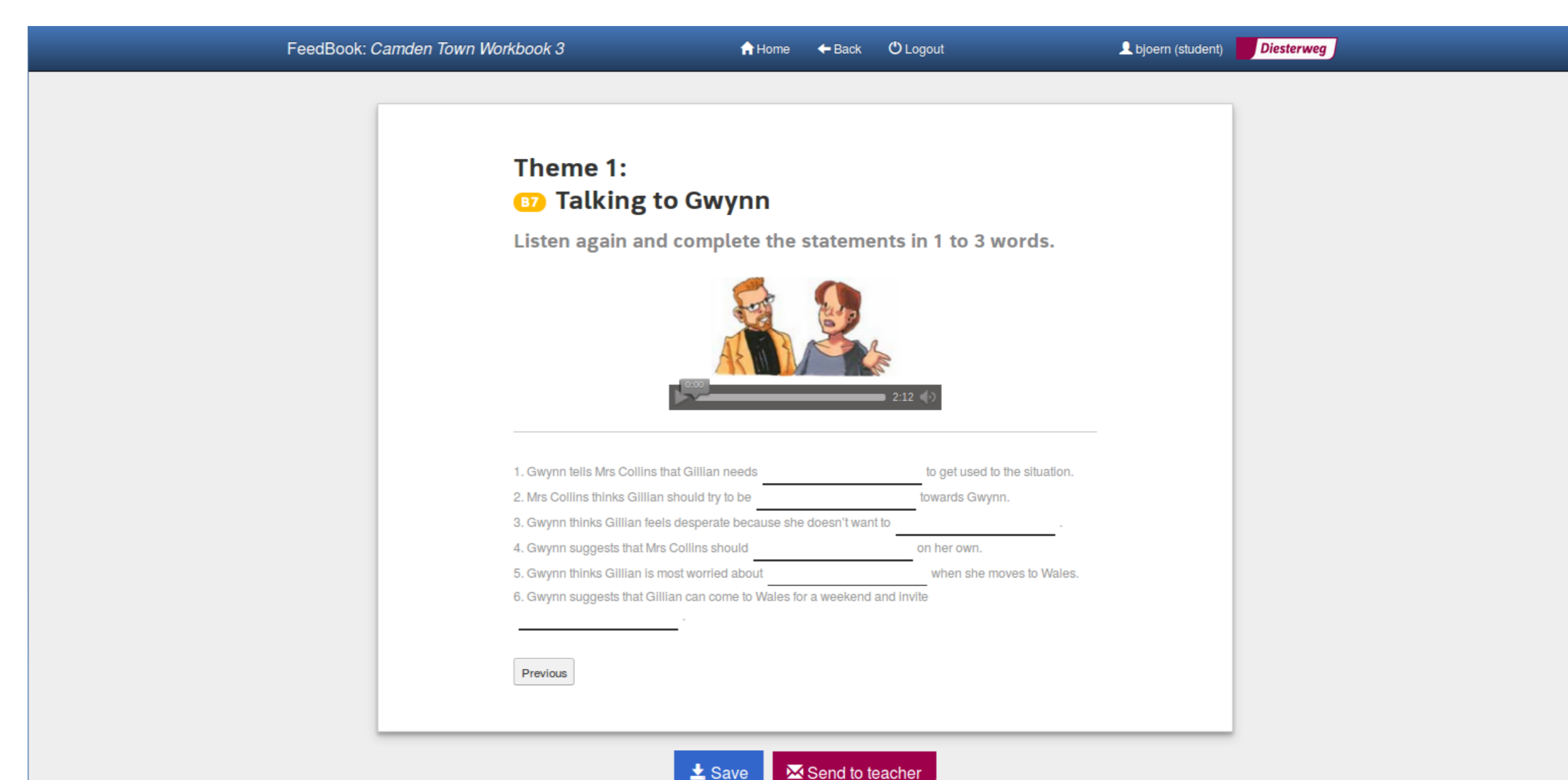


Figure 3: Practice Interface (Student)

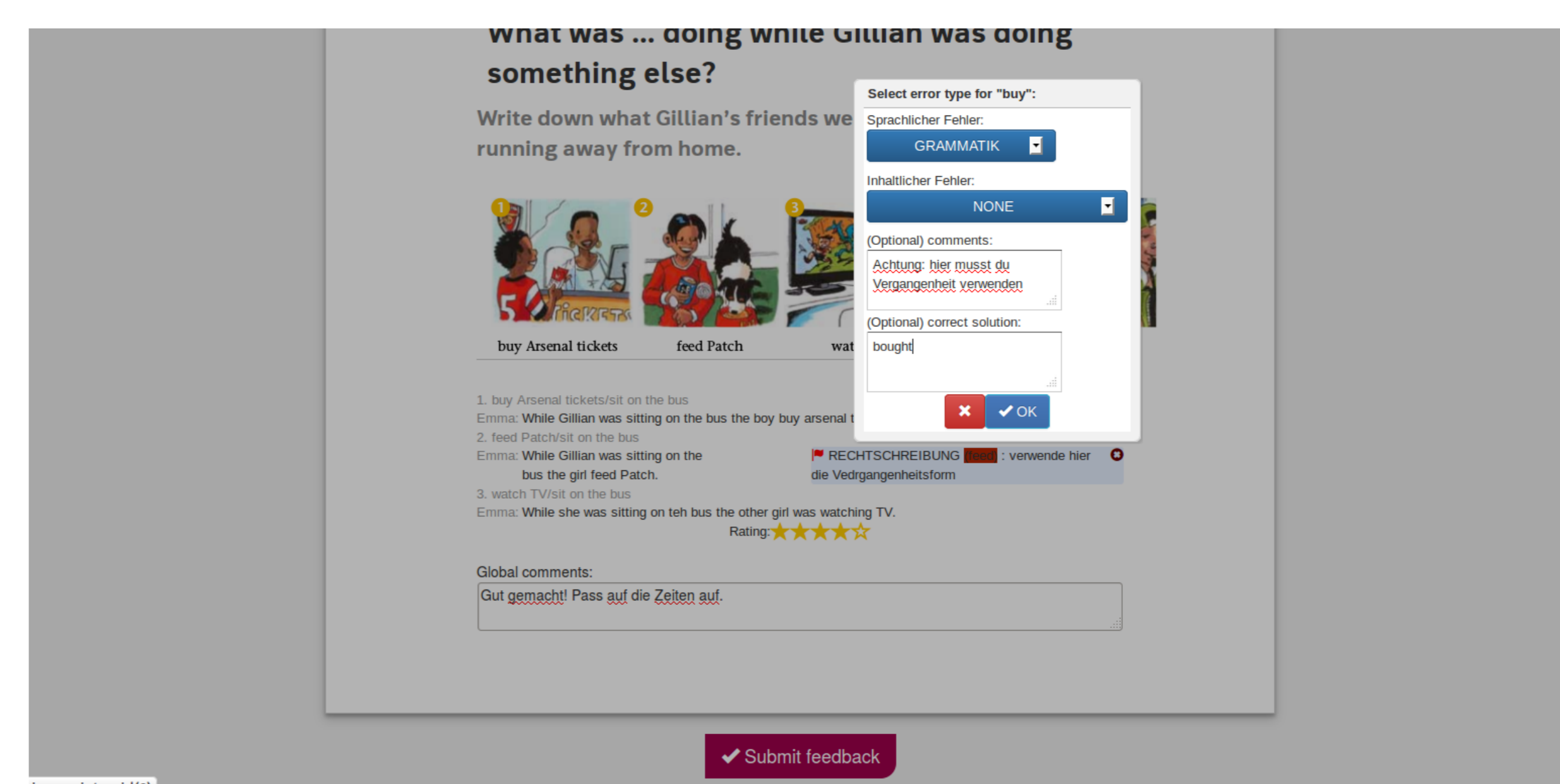


Figure 4: Grading Interface (Teacher)

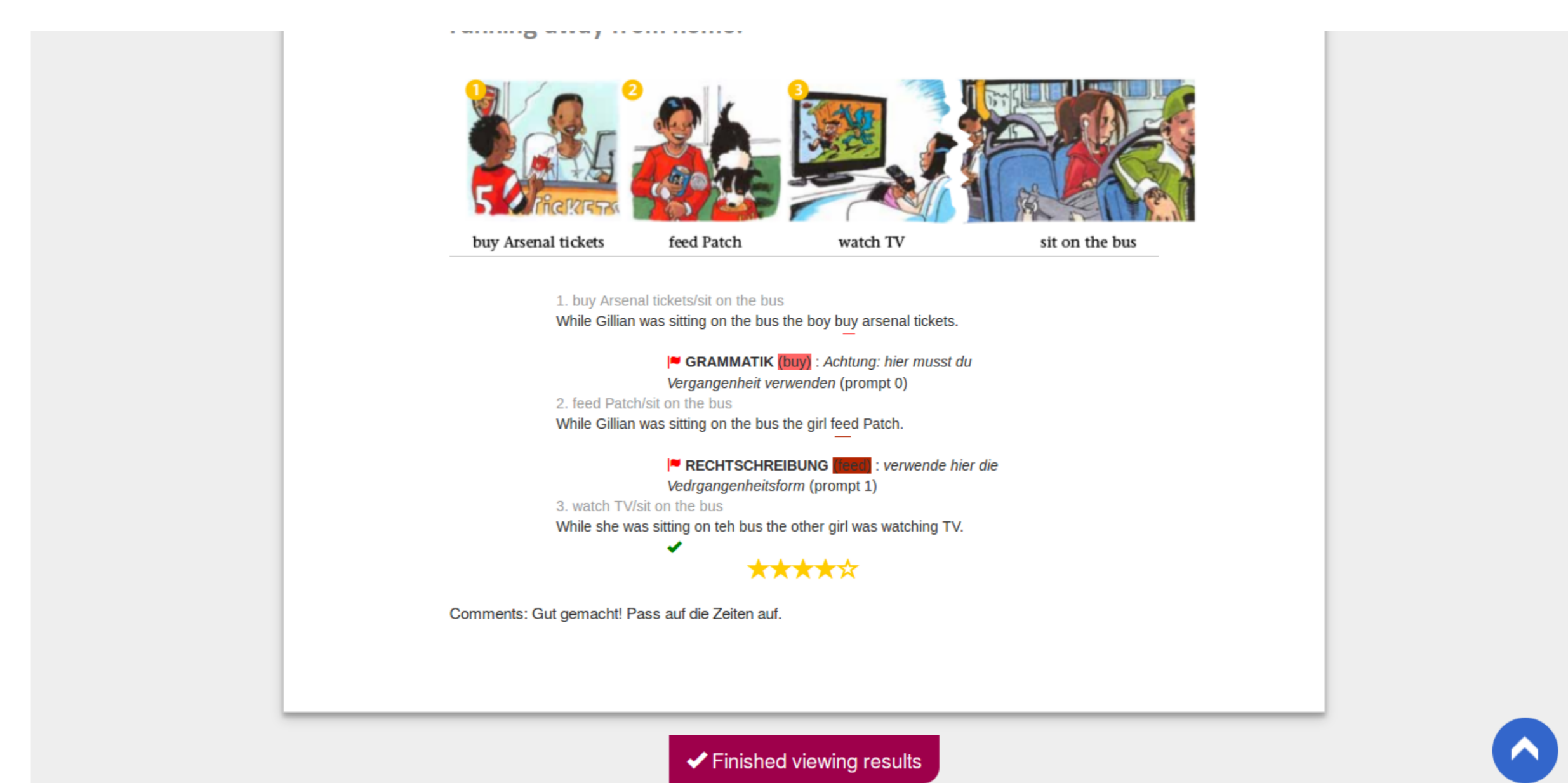


Figure 5: Result Interface (Student)