Generic vs. Explicit **Grammatical Feedback** for Moodle Quiz Items

Brad Visgatis, Masao Tada, Shinya Iwasaki,

Osaka International University

& Tamara Swenson

Osaka Jogakuin University



Flow of this presentation

- · Importance of feedback in L2 learning
- · Underuse of feedback function in Moodle question development
- · Our study: set up and results
- · Obstacles to using Moodle feedback functions
- · Obstacles to developing test bank items
- · Overview of feedback function in Moodle question bank items



The role of feedback in language learning

- Fanselow (1987): to teach is to provide feedback" (p. 267)
- Gass & Mackey (2006): appropriate feedback when there is an error in the learners' output
- Parr & Timberlyey (2010): address gaps between the learners' current and the desired ability
- All feedback (whether provided by teachers, tutors, or technology) shares the goal of encouraging self-learning and regulation of the learners' behavior (e.g., Loncar et al., 2021; Saadat et al., 2016)



Grammatical feedback mediated through technology

Recent studies about feedback have examined how feedback on writing and grammar can be mediated through technology:

· Technological mediation allows a greater degree of adaptability and flexibility, whether delivered synchronously or asynchronously (e.g., Delante, 2017; Shintani & Aubrey, 2016)

Reviews of research in corrective feedback by have indicated that

Feedback adds to the learners understanding (e.g., Li & Vuono, 2019; Loncar et al., 2021; Russell & Spada, 2006; van Beunigen, 2010)

This suggests that providing feedback to students when they are completing activities available on an LMS is essential













Moodle LMS

- · One of most used LMS at Japanese universities
 - Best LMS as rated by by Learning Platforms (2021), an independent evaluator of online education options
- Provides educators controls missing from Google Classroom
 - · assignment cut off dates
 - · question banks for random generation of items



The Study, 1

Hypothesis:

 Students taking quizzes in Moodle that receive instructive feedback about incorrect answers will outperform students receiving non-specific feedback

Materials:

- · The materials consisted of 240 2option multiple choice questions targeting knowledge of present participles, past participles, and passive forms.
- · The questions were uploaded to Moodle and imported into an item test bank.

Participles	Attri buti ve	Pre dica te	Pas sive	Tot al
Present	61	36		97
Past	65	24	54	143
Total				240



The Study, 2

Participants:

· Participants were drawn from two institutions. Participation was voluntary. Site 1: Course teachers administered the pretest. Students were 1st - 3rd year students. Site 2: Participation voluntary but encouraged by grammar course teachers. All first-year students invited.





Procedures

- A 40-item pre-test was administered in classes, and participants were then divided into two equivalent groups, control and treatment. Only generic feedback was provided.

 • Teachers decided on the timing of practice tests. Some
- were done during class time, but most were done as homework.
- 40-item practice tests were opened that consisted of the same proportions of items from each group as in the pretest, but items were drawn randomly from the item test bank. Control group students received generic feedback and treatment group students received formative feedback.
- . The 40-item pre-test was then re-administered and used as the post-test.



Test Item Distributions

Participles	Att ^{Pr} rib ed Pa rib ic ssi uti at ve ve e
Present	10 5
Past	10 5 10



The Study, 4

The Data
There were widely different patterns of participation, from some students who took the pre-test only and other students who took both the pre- and post-tests and did 10 practice sessions.

From this pool of students, we selected the 51 (Set 1) who had full data sets (pre-test, post-test and at least 1 practice session). We also picked up a second set of students (Set 2) who had pre-test and multiple practice test scores, but no post-test. For these 43 students, we used the final practice test in place of the post-test.

149
125
83
47
41
13
7
5
3
3
2
52

Stage



The Study, 5

ANCOVAs

We conducted two ANCOVAs with pre-test post-test change as the dependent variable, group (control vs treatment) as the independent variable, and number of practice attempts as the covariate.

The first ANCOVA was with all 94 students from both sets. The results were statistically significant, F(1, 93) = 5.20, p = .007, $\eta^2 = 0.103$.

The second ANCOVA used only set 1 students. Again, the results were statistically significant, F(1, 48) = 3.70, p. = .032, $n^2 = 0.133$.

In both cases, students receiving item-level feedback on incorrect answers outperformed students receiving generic feedback.

In both cases, the effect size can be considered medium.



10

The Study, 6

One advantage of using moodle is that it reports time taken on tests. This can help the researcher or teacher understand the amount of burden.

The amount of time for the average student to complete the pre-test, the post-test and four practice tests would be less than 45 minutes of total test time.

Students in Sets 1 and 2 averaged 5.46 minutes per test based on 498 tests.

Students whose data was not used for the ANCOVAs averaged 8.84 minutes per test based on 95 tests.

For all attempts, the average test time was 5.99 minutes per test based on 593 tests.



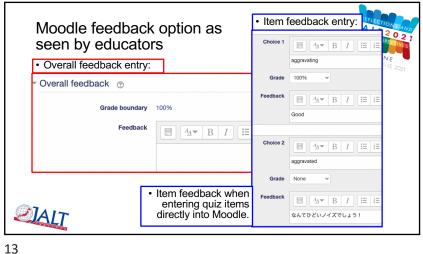


There are two main obstacles to developing these materials: item generation and Moodle set up.

- 1. Item generation
 - A. Identifying what point(s) to target
 - B. Developing a taxonomy of error typesC. Preparing formative feedback
- 2. Moodle set up
- 1. Importing items
- 2. Setting tests

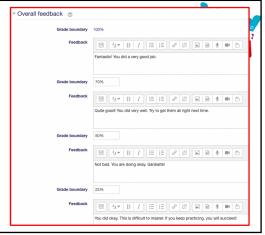






Moodle overall feedback entry

· Overall feedback entered by educators for this project provided to the Control Group



Grammar points & item generation

Grammar focus Example items

- Passives
- · They were aggravated by the noise.
- Past participles
- Attributive
- Predicate
- · He was arrested for aggravated assault. The president looked alarmed
- Present participle
- Attributive
- Predicate
- · What an aggravating noise!
- · His way of talking was very aggravating.
- **JALT**

alarmed

PJALT

14

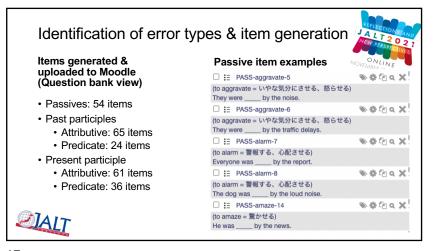
Grammar item & feedback generation

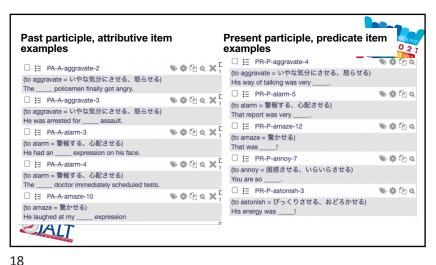
• PASS: They were ___ by the noise.

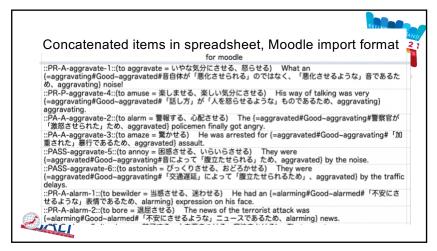
aggravated aggravating • PA-A: He was arrested for _

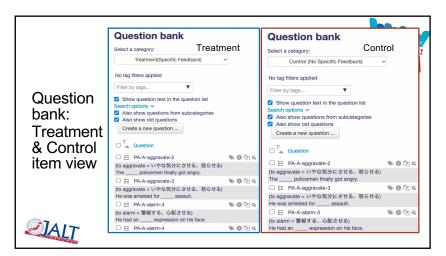
- assault. aggravated aggravating • PA-P The president looked .
- PR-A: What an___noise! aggravating aggr aggravated
- PR-P: His way of talking was
- aggravating aggravated

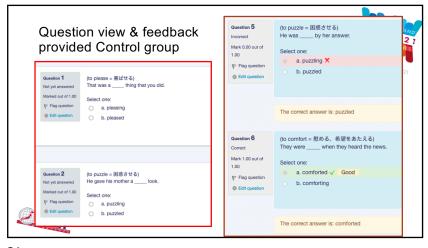
- Feedback for incorrect answer
- PASS: 音によって「腹立たせられる」ため、5.2027 aggravated
- •PA-A:「加重された」暴行であるため、 aggravated}
- PA-P: 大統領が「不安にさせられている」た め、alarmed
- PR-A: 音自体が「悪化させられる」のではな く、「悪化させるような」音であるため、 aggravating
- PR-P: 「話し方」が「人を怒らせるような」 ものであるため、aggravating

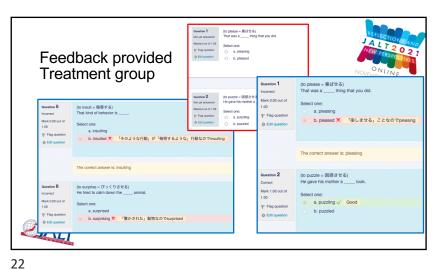




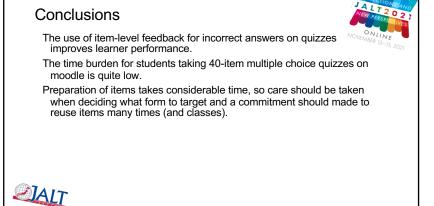








21



References Delante, N. L. (2017). Perceived impact of online written feedback on students' writing and learning: A reflection. Reflective Practice, 18(6), 772-804. https://doi.org/10.1080/14623943.2017.1351351 Fanselow, J. (1987). Breaking rules: Generating and exploring alternatives in language teaching. Longman. Gass, S. & A. Mackey. (2006). Input, interaction and output: An overview. AILA Review, 19, 3-17. Li, S., & Vuono, A. (2019). Twenty-five years of research on oral and written corrective feedback in System. System, 84, 93-109. https://doi.org/10.1016/j.system.2019.05.006 Loncar, M., Schams, W., & Liang, J. S. (2021). Multiple technologies, multiple sources: trends and analyses of the literature on technology-mediated feedback for L2 English writing published from 2015-2019. Computer Assisted Language Learning, 1-63. https://doi.org/10.1080/09588221.2021.1943452 Parr, J. M., & Timperley, H. S. (2010). Feedback to writing, assessment for teaching and learning and student progress. Assessing writing, 15(2), 68-85. https://doi.org/10.1016/j.asw.2010.05.004 Russell, J., & Spada, N. (2006). The effectiveness of corrective feedback for the acquisition of L2 grammar: A meta-analysis of the research. In J. Norris and L. Ortega (Eds.), Synthesizing research on language learning and teaching (pp. 133–164). John Benjamin. https://doi.org/10.1075/lllt.13.09va Saadat, M., Mehrpour, S., & Khajavi, Y. (2016). Internet-mediated corrective feedback for digital natives. TESOL Journal, 7(1), 233–245. https://doi.org/10.1002/tesj.232
Shintani, N., & Aubrey, S. (2016). The effectiveness of synchronous and asynchronous written corrective feedback on grammatical accuracy in a computer-mediated environment. The Modern Language Journal, 100(1), 296-319. https://doi.org/10.1111/modl.12317 Swenson, T., & Visgatis, B. (in press). Providing feedback in moodle question bank items. Osaka Jogakuin University Journal March, 2022 Van Beuningen, C. (2010). Corrective feedback in L2 writing: Theoretical perspectives, empirical insights, and future directions. International Journal of English Studies, 10(2), 1-27. https://doi.org/10.6018/ijes/2010/2/119171 JALI

23