Expert Feedback is Not Always High Quality Feedback

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# ABSTRACT

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Good feedback is a critical part of the learning process, particularly in creative fields. Expert feedback is often hailed as the highest quality feedback due to experts’ domain knowledge and experience. However, even among experts, good feedback is rare. This short paper presents an analysis of expert feedback given to over <<x>> students from three iterations of an undergraduate design course. We found that from over <<x>> feedback comments, only <<x%>> were considered being of high quality. Our results suggest that though expert feedback is often highly valued from students, it is not always helpful and greater efforts should be made to teach instructors provide more effective and helpful feedback.

## Author Keywords

Authors’ choice; of terms; separated; by semicolons; commas, within terms only; this section is required.

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# INTRODUCTION

From writing essays to developing web applications, formative, iterative feedback is critical to the success of open-ended, creative projects. In educational settings, feedback is especially important for showing learners where they are, where they should be, and how to get there. Unfortunately, the practice of giving good feedback is not an explicitly taught skill. Even experts are often unware that their feedback is ineffective.

Due to the increasing scale of physical and digital classrooms, peer feedback has become a common model. However, peer feedback is often of variable quality, and learners tend to value expert feedback more highly. Yet, expert feedback is difficult to scale. The one-to-many model of an expert providing feedback to many learners is highly demanding on experts, which can lead to a potential decrease in quality of feedback. While many existing systems have examined reusing expert feedback across multiple student submissions, these work best for domains where correct and incorrect solutions are distinctly separate.

## What are the Characteristics of Good Feedback?

Effective feedback in general is specific, actionable, and justified. Specific feedback is directly related to a particular part of the work or rubric criteria. Actionable feedback provides a concrete suggested next step for learners to progress. Justified feedback provides an explanation or reasoning to help learners understand why the feedback was given. While these are the general characteristics of effective feedback, they are often difficult to include in all feedback comments.

This paper provides an analysis of feedback comments provided by teaching staff over three iterations of an undergraduate design course. 4,077 total feedback comments from 21 teaching assistants (TAs) were rated in terms of whether they were specific, actionable, and/or justified. We found that only <<x%>> of all feedback comments met the criteria of being specific, actionable, and justified. Longer comments were more likely to meet all characteristics. These results provide evidence that expert feedback is not necessarily high-quality feedback and emphasizes the importance of instructing instructors on the practices of giving effective feedback.

# METHODS

## Feedback Dataset

Our dataset consisted of 4,076 total distinct feedback comments. These comments were provided by 20 different TAs over the course of three iterations of an undergraduate design course. TAs provided feedback comments on a total of 10 weekly assignments for each course iteration. These assignments ranged from written explanations to paper prototypes to functional web applications.

## Feedback Ratings

To measure feedback quality, two independent raters rated whether each feedback comment was specific, actionable, and justified with a binary scale. Each rater rated one half of the total dataset. As a measure of interrater reliability, both raters rated an overlap sample consisting of a random 30% of the overall sample. The interrater reliability between the two raters was high (<<x>>).

# results

## Most Feedback is Not Specific, Actionable, & Justified

Of the 4,076 feedback comments, <<x%>> were rated as being all specific, actionable, and justified. <<x%>> were rated as containing a specific statement, <<x%>> with an actionable statement, and <<x%>> with a justified statement. <<x%>> were rated as not fitting any of the three characteristics (Figure 1). A further breakdown of feedback categories shows that most specific comments were specific and actionable, supporting the claim that justification of feedback is one of the most difficult characteristics of feedback to understand and apply.

**Longer Comments Tend to be of Higher Quality**

On average, feedback comments were 20.67 (SD=24.41) words long with high variability in comment length (min=1 word, max=222 words). To measure whether quality of feedback and length were correlated, we calculated the sum of categories that each feedback comment met (*i.e.* comments that were rated as Specific only would have a category sum of 1, and comments that were rated as being Specific, Actionable, and Justified would have a category sum total of 3). Longer comments were more likely to be rated as being Specific, Actionable, and Justified, and in general, the length of comments was related to its rating.

## Key Words and Phrases May Be Indicative of Quality

# Discussion

# Conclusion

# ACKNOWLEDGMENTS

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