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Learning About the Quality of Work that Teachers Expect: Students’ Perceptions of Exemplar Marking Versus Teacher Explanation

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Abstract
Assessment is an important element of university curricula for both teachers and students. It provides evidence that students have learned what their teachers expected them to learn. There is good evidence that teachers’ use of exemplars in a dedicated marking class held before an assessment task helps students understand what is expected of them in regards to standards of work; the level of students’ assessment task performance is consequently enhanced. However it is unclear whether students’ process of marking exemplars, or a teacher’s explanation of the quality of exemplars, contributes more to students’ understanding of expectations. In this small-scale mixed methods study involving exam answer exemplars, we found that undergraduate and postgraduate Nutrition students value both marking and the teacher’s explanation for different reasons, and overall perceive the teacher’s explanation as being most beneficial for their learning. An important factor to also consider is students’ emotional reactions to the marking class and the potential implications of this on learning and exam preparation. We recommend that teachers be supported in implementing an interactive exemplar-based approach to help students learn about what is expected of them in assessment tasks, including exams.

Keywords
exemplars, teacher expectations, student learning, examination, marking, criteria, standards
Introduction

Assessment is arguably the most important element of university curricula for students and teachers (Joughin 2010). We believe a key purpose of assessment is to provide teachers or assessors with evidence that students have learned specifically what they are expected to have learned. Teachers should not set assessment tasks that focus on evidence of learning beyond what they expect of their students. In our view this would break a fundamental trust between teachers and students. Likewise, teachers should do nothing that hinders their students’ capacity to learn what the teacher expects of them in an assessment task.

However, in higher education there is evidence that many students, particularly in their first year of transition to university, struggle to understand the quality of work that teachers expect in written assessments (Armstrong & Sanson 2012; McCune 2004). This may be due in part to teachers’ traditional reliance on after-task feedback to “carry the load” of explaining their expectations (Hendry 2013). However, after-task feedback requires that students first wait for this feedback, and then wait to apply their interpretation of it to future work. Teachers’ reliance on “one-way” (Sadler 2009) after-task feedback is problematic because students may simply not understand the feedback, even when it is well constructed, and/or they may not know how to apply it to a future task (Price et al. 2010). In the worst case, feedback may reach students too late to be of any use to them (Weaver 2006).

Teachers in many courses set final exams, yet students can often advance in their degree program without receiving any feedback (other than a mark or grade) on their exam performance (Payne & Brown 2010). As one postgraduate student commented in our study, “Once you’ve been in the uni for four years you know how your lecturer marks and what they like and what they don’t like. So towards the end...you’ve figured that out.” The question we ask ourselves is, “Why should any student have to wait this long?”

We argue that teachers should spend more time before assessment tasks, including exams, to help their students develop an understanding of the expected quality of work (Scoles, Huxham & McArthur 2012). There is good evidence that when teachers engage students in marking exemplars – typical examples of past students' work of different levels of quality, but from different topic areas to the current task – and explain why the exemplars received the grades they did, students develop their understanding of what is expected of them. Consequently, their level of performance in their written assessment is enhanced (Hendry, Armstrong & Bromberger 2012; Payne & Brown 2010; Price et al. 2012; Smith et al. 2013; Wimshurst & Manning 2012).

The steps in the use of exemplars generally consist of the following:

1. Students are provided with copies of exemplars.
2. Students individually mark the exemplars, using the teacher’s marking guide.
3. Students may discuss their marking decisions with their peers.
4. The teacher explains why they graded the exemplars the way they did.

According to the literature, however, it is unclear whether students’ process of marking exemplars or the teacher’s explanation of the actual grades awarded contributes more to students’ understanding of the standards of work expected. Smith et al. (2013) found that business students’ performance in a subsequent written assignment was enhanced when they marked exemplars; the best predictor of performance was students’ capacity to judge standards of work.
intervention also included a step where the teacher “divulged his marking and the reasons for it” (2013, p. 49) (step 4 above). If a teacher’s explanation of the actual grades awarded is the key factor in developing students’ understanding of the standards of work expected, more time ought to be spent on encouraging and supporting teachers in this approach.

This article explores students’ perceptions of the experience of marking exam exemplars versus receiving a teacher’s explanation of the quality of the answers. Students in our small-scale study were enrolled in either undergraduate or postgraduate nutrition and dietetics professional programs within a single institution, and were taught the same subject of Nutritional Assessment as a shared class; they sat the same final end-of-semester exam. We found that students placed high value on the teacher’s explanation of what constitutes a good exam answer, and commented in particular on the benefits for their learning of the teacher marking examples of work “live” in front of them.

Background

In research on the use of exemplar marking to help students understand the quality of work that teachers expect in exams, Payne and Brown (2010) found that students in a biomechanics course who used a marking guide to mark examples of the previous year’s exam scripts, and who discussed their marks in class and received an explanation of the marking criteria from the teacher, achieved higher grades in their final exam than students who did not. Students in the marking class reported using the marking guide and past papers to guide their exam revision, and reported feeling more confident about siting the final exam (Payne & Brown 2010). However, the study did not specify whether the teacher took time to explain fully why they graded the exam scripts the way they did (step 4 above). The authors note that “students were able to clarify the meaning of the criteria by asking questions [to the teacher]” (2010, p. 621).

In a study of mathematics-education students’ perceptions of their experience of marking and discussing essay exemplars in class, Hendry and Anderson (2012) found that overall, students valued the exemplars and their teacher’s explanation of what they expected in a good essay. The teacher explained their reasons, in relation to their marking guide, for why they awarded the grades that they did to the exemplar essays. Students had the opportunity to express their opinions about the quality of the essays, and ask clarifying questions to the teacher in class.

Little is known about students’ perceptions of the process or experience of marking exam-answer exemplars versus receiving a teacher’s explanation of why the answers were marked the way they were. The key questions we aim to answer are: how do students perceive the role and relative importance of each process (marking or teacher explanation) for their exam preparation and performance?

Context

This study was conducted at a large metropolitan research-intensive Australian university. Twenty-six undergraduate and 47 postgraduate students enrolled in the subject Nutritional Assessment in their respective degree program participated. One of this study's authors coordinates and teaches the subject in the study, and the other is an academic in a central educational development unit at the university. The undergraduate students were in their fourth year of a combined Bachelor of Applied Science (Exercise Science)/Bachelor of Science (Nutrition) program, and the postgraduate students were in their first year of a two-year Masters of Nutrition and Dietetics program. The same teacher taught both groups at the same time, facilitated the
exemplar marking task outlined in this article and used the same marking guide to mark the same short-answer exam questions for all students.

**Method**

In the marking class for both undergraduate and postgraduate groups, students were given copies of one high-scoring and one low-scoring exemplar exam answer from the 2011 Nutritional Assessment exam, to mark using the teacher’s marking guide. Students individually spent time marking the answers and shared their reasons for their marks in pairs. The teacher then physically marked the two exemplars in front of the class using the (same) marking guide and a visualiser or "document camera". The qualities of a "good" answer were explained, specifically in relation to the two exemplars, and generally in relation to short-answer exam questions. A good answer consisted of important discipline concepts that were elaborated or illustrated by appropriate examples in practice. Students were invited to ask questions, and the teacher explained why a mark would or would not be awarded in a particular instance.

All students were emailed a link to an online questionnaire about their perceptions of the experience of marking and discussing exemplar exam answers, and the teacher’s explanation of his or her marking. The email was sent four weeks after students sat their Nutritional Assessment end-of-semester exam. The questionnaire consisted of 25 items rated on a five-point Likert scale anchored "strongly disagree", "disagree", "neutral", "agree" and "strongly agree", as well as open-ended questions. Items focused on how easy it was to understand the marking guide before and after the teacher explained how they graded the exam answers; the usefulness of the teacher’s explanation; and whether overall students thought that they were led to think about the quality of their own exam answers. The Kruskal-Wallis test in IBM SPSS Statistics version 21 was used to test for any differences in scores on our questionnaire between the undergraduate and postgraduate groups.

All students in each group were also invited to participate in a focus group about their perceptions of their marking-class experience. Two focus groups were conducted independently by one of this study's authors (the educational developer) four months after students sat their exam, using the same questions as a starting point for each group, and asking additional questions to probe, and for clarification when needed. Questions included, “how helpful was marking the exam answers?”; “how helpful was the teacher’s explanation of the quality of the exam answers?”; and “what aspect of your experience did you find most helpful for your learning?”. The focus groups were digitally recorded and recordings were professionally transcribed.

Both authors analysed the questionnaire comments and the focus-group transcripts. Analysis of the transcripts was undertaken in five phases: (1) becoming familiar with the data; (2) searching for themes; (3) reviewing themes; (4) defining and naming themes; and (5) summarising the results (Braun & Clarke 2006). We each independently carried out the first two phases by closely reading each transcript and distilling the main points. Together we then reviewed and agreed on the themes and selected quotes to illustrate each theme. The themes are summarised in the results section below.

We also used an independent-samples t-test in IBM SPSS Statistics version 21 to compare students’ exam marks in the 2012 and 2011 student cohorts. These two cohorts were taught the same curriculum for the Nutritional Assessment subject by the same teacher, and sat an end-of-semester exam. As in the Payne and Brown (2011) study, the exam questions had the same format.
but with some changes to the question topics. The 2011 cohort did not have an opportunity to participate in a marking class.

Ethics approval for this study was obtained from the University of Sydney Human Research Ethics Committee.

**Results**

Of the 26 students in the undergraduate group and the 47 in the postgraduate group, nine students in each group completed the questionnaire (total N = 18), which is an overall response rate of 25%. While this is a low response rate, it allows us to compare our qualitative data with frequencies of response. There were no differences between the two groups in scores on our questionnaire; thus the results reported below are based on all 18 respondents.

**Questionnaire Data**

A majority of students (89%) reported that they had made an effort to mark the exam-answer exemplars using the marking guide. Most students (72%) thought that as they marked the exemplars the language of the guide became easier to understand; two students (11%) disagreed.

From their paired discussion, most students (83%) found that their peers’ views of the quality of exemplars differed; none disagreed. Some students (33%) found discussing differences in interpretation in their group challenging, while others found the discussion helpful:

> “I found the [marking] exercise hard, so it was challenging for me personally. However, I found it very helpful to discuss it with my group, so this made it less challenging than doing it individually as we could brainstorm” (postgraduate student).

Most students (89%) thought that the teacher explained clearly what was expected in a well-written exam answer (none disagreed), and that the teacher’s explanation was useful for preparing for the end-of-semester exam (83%) (one person disagreed).

A majority of students (89%) rated listening to the teacher’s explanation the most useful aspect of the marking class for their learning. As one student commented:

> “The teacher had rather different perceptions on what was a ‘good’ exam answer because when [they] explained how [they] would mark the questions, it was revealed that there was a lot more depth required than most students had predicted” (undergraduate student).

Only one student rated discussing the exemplars with their peers the most useful aspect of the class.
Overall, the majority of students (83%) thought that they learned about the structure of a good exam answer from their experience of the marking class, and most (89%) thought that the marking class led them to think about the quality of their exam answers.

**Focus-group Data**

A total of 15 students participated in the two focus groups: 10 undergraduate students participated in the first, and five postgraduate students participated in the second. Four themes from the focus-group data were identified: (1) the importance of marking first and then comparing; (2) teacher marking and explanation; (3) structuring exam answers; and (4) feeling anxious and reassured.

**The importance of marking first and then comparing**

Students thought that being required to first mark the exemplars was beneficial, because they were then prompted to compare their own thinking about the qualities of a good exam answer with the teacher’s thinking: “it kind of engaged [you]...it was making you think” (undergraduate student).

This process of comparison helped students to construct a better understanding of what was expected in terms of their learning about a topic:

“Marking yourself first was quite good to see what you thought were valid points on the topic, and then seeing how [the teacher] marks on what [the teacher] regarded as a valid point, comparing the two and then also knowing that for something that you might not think gives you a few marks, [the teacher] sees that as being really valid” (postgraduate student).

“It’s the comparison of what we actually think is right, and then to see what the actual marking [is].... So if you marked it, say, more lenient or...easier compared to what [the teacher] did, then you need to say, ‘Oh, I should have done this instead because I didn’t think of it in this way’” (undergraduate student).

Students also thought that it was important to mark the exemplars first because it made them curious and more attentive, and led them to ask questions about the qualities of a good answer:

“It made you pay attention more, so – then because you’re curious too – yeah, because you can’t assess how [the teacher’s] marking unless you work out how you would mark it.... So you need to do that, otherwise it wouldn’t sink in – I don’t think it would sink in as much, what [the teacher] would say” (undergraduate student).

“When [the teacher] marked it, then you got to say, ‘Well, why? Because I thought here that this...’ And then [they] could [clarify]...and that helps cement it into your head and jog your memory when you are studying” (postgraduate student).

**Teacher marking and explanation**
Students reported that they had learned about what was expected in a good answer from watching the teacher award marks on the exemplars (using the marking guide) and listening to them explain the qualities of a good exam answer. The qualities of a good answer were that it consisted of important points elaborated or illustrated by specific examples “to confirm that you’re understanding it” (undergraduate student). Undergraduate students in particular thought that this meant providing “a lot more detail than anticipated”.

Students also saw that it was acceptable to write their answers as dot points and perceived the benefits of this approach: “like knowing that [the teacher] appreciates dot points, rather than like [a] full-on essay”. In the exam this allowed students to focus on important points, and to check their dot points and examples for comprehensiveness.

Also, students perceived that they benefited mainly from the teacher’s “hands-on” explanation, rather than the exemplars themselves:

“It was quite handy because when [the teacher] did it, [they] had the exam paper from last year, the actual student’s one that we reviewed, and [the teacher] put it so it was on the screen and was actually marking it... So circling words, crossing things out, so actually having the visual as well” (postgraduate student).

“It gives you a chance to get into [the teacher's] head and how [the teacher] actually thinks” (postgraduate student).

**Structuring exam answers**

Students in both groups thought that learning about how their teacher expected them to answer an exam question helped them structure their exam answers in a more logical way. By “structure” students meant the strategy of making a key point and elaborating on it with an example. In past exams when answering questions, students often had simply started writing in sentences:

“[Whereas now] it’s kind of – take a step back and maybe plan a little bit before you go in to actually answering it.... [In the past you] just start writing and hope that you’re making sense...it [the answer] sort of develops” (undergraduate student).

“It puts a structure in your head so when you see the question you’re like, ‘Okay.’ You know how to break it down instead of before [when] you’d see the question but, ‘Okay I’ve got all this knowledge in my head and I’m just going to blurt it out whereas in no logical order’” (postgraduate student).

Students did not see any point in "copying" from the exam-answer exemplars that they had marked, because “even if it is the same information [i.e., question topic], it’s the information that you got from your lectures” (postgraduate student). As another student commented, “What you took away from that session was how to structure it [an answer], but not getting so fixated on someone else’s answer” (postgraduate student).
Feeling anxious and reassured

Some students felt anxious after the marking class about what the teacher expected – “I started freaking out about how much detail” (undergraduate student) – and felt the need to focus their study at home on important discipline concepts. Some students also felt anxious knowing that past students had not scored very highly in their answers. However, other students felt reassured:

“I was like, ‘Now we know, that’s okay’, okay” (undergraduate student).

“Going through it with [the teacher] at the end and seeing what [the teacher] gave marks for did make you think, ‘I actually – I could do that, I could do that’” (postgraduate student).

Exam Marks

To investigate potential effects of the marking class on students’ exam performance in the Nutrition Assessment subject, we used an independent-samples $t$-test to compare 2012 undergraduate and postgraduate students’ ($N = 83$) marks with the 2011 undergraduate and postgraduate students’ ($N = 75$) marks. Undergraduate students in the 2012 cohort obtained higher marks ($M = 39.50$, $SE = .45$) on the exam than those in the 2011 cohort ($M = 34.25$, $SE = .42$). This difference was significant $t(81) = 7.56$, $p < .001$ and represented a large effect $r = .64$ (Field 2009). Postgraduate students in the 2012 cohort also obtained higher marks ($M = 36.81$, $SE = .54$) on the exam than those in the 2011 cohort ($M = 32.02$, $SE = .67$). This difference was also significant $t(73) = 5.47$, $p < .001$ and represented a large effect $r = .54$ (Field 2009).

Discussion

This small-scale study explored students’ perceptions of their experience of exemplar-based teaching and learning, and, more specifically, the benefits of marking exam answers versus receiving a teacher’s explanation of the quality of answers expected. Our quantitative and qualitative results show that students value both marking the exemplars (themselves) and the teacher’s explanation of their own marking, for different reasons. Students value marking because it makes them curious to know how the teacher marked, and gives them the opportunity to compare their own views about what makes a good answer with their teacher’s views. Consistent with previous research on student marking and teachers’ explanation of exemplars for other assessment tasks (Hendry & Anderson 2013; Hendry, Armstrong & Bromberger 2012), we found that students’ understanding of what makes a good exam answer differed from the teacher’s. Even after spending at least three years at university, students generally did not know what was expected of them in their exam.

Overall, students value the teacher’s explanation and strategy of marking exemplar answers in front of the class as the most beneficial aspect of their experience because, through listening to and visually following the teacher’s explanation, students learn (i.e., create or construct knowledge) about the "logical" structure of a good exam answer. Structuring an answer well in the Nutritional Assessment subject involves outlining important discipline concepts and elaborating on these points with appropriate examples in practice. These findings reinforce previous research on the benefits to education and law students of marking written-assignment exemplars and receiving the
teacher’s interactive explanation of the quality of a good assignment (Hendry & Anderson 2012; Hendry, Armstrong & Bromberger 2012; Hendry, Bromberger & Armstrong 2011). Education students reported learning about the structure of a good essay (Hendry & Anderson 2012), whereas law students reported using exemplars of a good letter assignment to structure their own work (Hendry, Armstrong & Bromberger 2012; Hendry, Bromberger & Armstrong 2011).

We also found that some students felt anxious about the upcoming exam and their teacher’s expectations, while other students felt reassured that they understood these expectations, and/or felt confident that they could meet them. Students’ emotional reactions to the marking class, and their potentially higher levels of anxiety around their impending assessment, are important factors to be considered by teachers who adopt an exemplar-based approach to support their students’ learning. Hendry, Frommer and Walker (1999) argue that the creation or construction of new knowledge requires energy that manifests as mental effort, which in turn is a function of arousal and level of anxiety and a person’s self-efficacy. For students with lower self-efficacy or confidence, increased anxiety may reduce the mental effort required for the process of construction (learning). If for some students increased anxiety persists beyond the marking class into the period of their exam preparation and revision, these students’ rates of learning may be lower and they may learn less for their exam. To help reduce levels of anxiety, teachers could provide students with an early opportunity after the marking class to sit a practice-only version of an exam that by definition does not “count”. Afterwards teachers could give students personalised unambiguous (Price et al. 2010) feedback on their practice performance, which students could then apply to their exam preparation. Other strategies to support students could include organising revision classes and online peer-review activities.

While for some students the marking class was anxiety-provoking, we found evidence that it also prompted students to reflect on the quality of answers that they would write in the end-of-semester exam. Students reported that when studying and revising for, and even sitting, their exam, they had recalled the teacher’s instruction about what makes a good answer. As one student commented about their exam performance:

“When you then answer your question or even think quickly in your head what you want to say, you can determine what you think is valid and what’s not valid. You’ve got [the teacher] narrating in the back of your head” (postgraduate student).

Students in the 2012 cohort who had had the opportunity to participate in the marking class performed better on their exam than students in the previous year’s cohort. This result corroborates that of Payne and Brown (2011); however, as in the former study, our finding is based on two relatively small cohorts. We cannot rule out potential confounding marker and/or student-cohort effects in our study. The former study and ours also focus on preparation for and performance on a written exam. Future research could explore the effectiveness of the exemplar-based approach for enhancing students’ achievement in oral presentations or applied exams, such as objective structured clinical examinations.

As suggested by Carless et al. (2011), future research could focus on the capacity of exemplar-based teaching and learning to support students’ development of effective “self-monitoring capacities” for learning and performance. Another important question for future research is whether the use of exemplars in a marking class suppresses students’ creativity in producing their own work. Anecdotally, some colleagues have expressed concern about students learning the
generic structure of peers’ good-quality written work because it may lead students to structure their own work in a formulaic way. However, from the results of the current study and previous work, there is no a priori reason to suspect that students who experience exemplar-based marking will become formulaic in the way that they produce written answers or assignments. In our view, because students have learned a helpful structure for their work, they may have more mental effort available to expend on being creative in expressing their content knowledge.

Conclusion

Our study adds to previous research on student marking and teachers’ explanation of exemplars (Hendry & Anderson 2013; Hendry, Armstrong & Bromberger 2012; Hendry, Bromberger & Armstrong 2011), which shows that students learn about the structure of good written work (as expected by the teacher), and how to express in writing the curriculum content they have learned in a more appropriately structured way. According to our results and that of previous research, a teacher’s interactive explanation of the qualities of exemplars, particularly through narrating their marking process in front of a class and responding to students’ questions, is a key factor in developing students’ understanding of the quality of work expected. The process of marking is also important for prompting students to engage in a dialogue with their teacher about quality written work.

We recommend that university departments develop programs to encourage and support teachers in implementing an interactive, exemplar-based approach to teaching, to help students learn what is expected of them in assessment tasks. This is particularly important in students’ transition to university, when teachers “need to be open and honest about their expectations of students as soon as possible” (Leese 2010, p. 248). Students will then not have to wait for after-task feedback to be clear about what is (rather than was) expected of them. They can apply their understanding of teacher expectations from the outset to achieving their full academic potential in their learning and subsequent assessment performance.

References

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