Teacher Feedback and Student Learning

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Research Domain: Learning, teaching and assessment (LTA)

Abstract: Aims and Objectives: This European-wide study aimed to investigate feedback given to dental students and ascertain whether feedback enhanced learning.

Method: This was a mixed method study employing a questionnaire and focus group (FG) discussions.

Results: 223 completed questionnaires received. 54.0% (n=121) delivered feedback orally. Constructive feedback was considered the most popular style. 54.5% (n=122) discussed feedback with students to gauge its impact. 88.8% (n=199) respondents preferred to receive constructive feedback followed by self-reflection (36.6%, n=82).

50 delegates attended four FGs. Data was analysed thematically. Emerging themes were: Feedback styles; types of students; receiving/delivering feedback and technology. Constructive feedback was considered most suitable; students’ stage of development influenced feedback delivered, feedback needed to be interpreted correctly and the use of digital technology. Student reflection, following feedback is essential.

Conclusions: This study highlighted the diversity of feedback and the challenge of delivering good quality feedback. Dental educators prefer constructive feedback but agree feedback should facilitate learning.

Paper: Introduction: Feedback is reported to be regularly delivered by tutors; however, the quality of that feedback is brought into question, as students are often critical of the feedback they allegedly receive (National Student Survey 2018). The delivery of effective feedback in medical education is controversial (Husain & Khan 2016), with vastly differing acceptable standards, methods and approaches (Nicol & MacFarlane-Dick 2006). It is also subject to the culture, and perceptions of both the learners and teachers (Hofstede 2011; Wilbur et al., 2019). This study explored the rationale behind feedback to undergraduate and postgraduate dental students and scrutinised whether feedback actually enhanced learning. The relative effectiveness of the different styles of feedback were explored, including positive criticism, negative criticism, self-
reflection and praise (Fine et al 2018). The impact of feedback on students’ confidence (Fine et al 2017) was examined. The study included perceptions of when and how effective feedback should be delivered, and from whom such feedback should be imparted to maximise student learning (Van De Ridder et al 2008). This study investigated the opinions, perceptions and practices of feedback delivery from dental educators to dental students, and its influence on student learning. The study determined: a) what was accepted good feedback practices, b) the effectiveness of feedback to enhance student learning, c) the challenges of delivering effective feedback and d) the practical suggestions and solutions for delivering operative feedback.

Feedback is particularly relevant to clinical teaching and learning (Chamberland et al., 2019). Hattie & Timperley (2007) explored how different forms of feedback can have different influences and by designing a model of feedback they hoped to identify particular properties that make feedback effective (Hattie and Timperley 2007). Whilst not specifically looking at clinical teaching, Hattie & Timperley discussed looking at different methods whereby feedback could influence learning. Their model asks three fundamental questions: i) Where am I going? ii) How am I going? and iii) Where to next? The third question introduces the concept of feedforward, where feedback given following an assessment or activity, motivates the student to progress and develop their learning, knowledge and skills. Feedforward has been described as ‘the modification or control of a process using its anticipated results or effects’ (Oxford English Dictionary, 2019).

Method: This was a mixed method study. Quantitative data was collected via an electronic questionnaire delivered to dental schools throughout Europe via Google Forms. The questionnaire enquired about: i) demographic information; ii) respondents’ experiences of delivering feedback; iii) the style of feedback delivered; iv) individual university preferences for delivering feedback and v) tutors’ personal feedback experiences. Data were analysed using SPSS software after transfer to a Microsoft Excel® spreadsheet (IBM Statistical Package for the Social Sciences).

Qualitative data were collected via focus group (FG) discussions and recorded comments on the questionnaire. Topics discussed during the FG meetings included: i) the different styles of feedback currently used to deliver feedback to students; ii) different types of feedback for different assessments; iii) staff reflection on delivered feedback and iv) the role of technology in enhancing feedback. All participants volunteered to attend the focus group discussions. Each FG was facilitated by a study researcher (Scott 2013; van de Ridder, 2008).

Data was collected through contemporaneous notes made by the facilitator and group reports to the conference delegates. The findings were analysed thematically.

Results:

Quantitative: 223 completed questionnaires were received, from 42 countries. Respondents worked in their current university for a mean of 16.3 years (range 1-42 years). 43.3% (n=97) respondents taught undergraduate students; 49.6% (n=111) were academic tutors; 37.5% (n=84) were professors.
87.5% (n=196) of respondents provided student feedback following summative assessment, of which 59.7% (n=117) was provided by specific examiners/markers. 54.0% (n=121) delivered feedback via oral/spoken means. Constructive feedback was considered by the tutors to be the most popular style of feedback delivery – 82.1% (n=184) respondents thought students preferred constructive feedback; 88.4% (n=198) tutors reported delivering constructive feedback. 54.5% (n=122) discussed feedback with their students to gauge its impact. 63.8% (n=143) respondents indicated that administrative staff collected feedback. 88.8% (n=199) respondents preferred to receive constructive feedback from their students followed by some self-reflection (36.6%, n=82).

**Qualitative:**

50 delegates attended the workshop during a conference and were randomly divided into four FGs. Each FG addressed a pre-set topic: i) What type of feedback do you consider is best in enhancing student learning experience, and why? ii) Do you think we should give different types of feedback for different assessments/activities? iii) Is there a role for student reflection on feedback given by educators? iv) What is the role of technology in providing feedback for students to enhance learning? Thematic analysis was used on data collected at individual focus groups. The main themes that emerged were: Feedback styles; types of students; receiving/delivering feedback and technology. Constructive feedback was the most suitable style; students’ stage of development influenced the feedback delivered, feedback needed to be interpreted correctly by the students and the use of digital technology to enhance feedback leading to future learning. Student reflection, following feedback was considered essential.

**Conclusions:** This study highlighted the diversity in what is understood by the concept of feedback and how challenging delivering good quality feedback is. A miscellany of discussions emphasises the heterogeneity of feedback receiving/delivering. Delivering good quality, timely and relevant feedback is thought provoking and can have a profound influence future learning.

Feedback is delivered to dental students by various dental schools, using numerous styles and methods. Dental educators prefer to deliver and receive feedback in a constructive manner but agree feedback should facilitate learning. This study highlighted diversity in what is understood by feedback and how challenging delivering good quality, timely and relevant feedback is. This is the first stage in a series of studies looking at feedback to undergraduate and postgraduate dental students; the next stage of the project will be to contact a selection of dental students throughout Europe to determine their views. Finally, a comparison between what teachers believe is appropriate feedback and what students want as feedback to enhance future learning will be made.