



46th Annual Scientific Meeting of the Nutrition Society of Australia, 29 November – 2 December 2022, Sustainable nutrition for a healthy life

Enabling students to ‘taste their soup before serving it to guests’: Inclusion of formative assessments within a re-designed dietary assessment assignment

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Massification has been described as ‘a reality facing contemporary universities around the world’ requiring academics to teach larger classes.⁽¹⁾ As such, a key challenge is the provision of quality teaching, learning and assessment with high student numbers.⁽¹⁾ One possible solution is to utilise advances in educational technology to increase efficiency. At some time in their degree, most nutrition and dietetic students undertake a dietary assessment assignment, typically requiring students to complete a food record, analyse it using a computer-based dietary analysis program, and write a report outlining the results. A key challenge is that, as each student has a completely different diet, grading is very complex and time consuming for staff. While it may be beneficial for a student’s learning to complete and receive feedback on a formative dietary assessment assignment^(2,3) (prior to the summative assessment), the staff time required tends to make this impractical. A project was undertaken to update the design of a dietary assessment assignment to incorporate two different optional formative assessments, and automatic marking and feedback. This study explores the educational value (grades and students’ perceptions) of the two formative assessments. Aims: 1) to evaluate to what extent participation in, and performance in two different formative dietary assessment assignments is associated with performance in linked summative dietary assessment assignments; 2) to gain insights into students’ use of and satisfaction with two formative dietary assessment assignments and how useful they are perceived to be. 46/76 students (61% of the cohort) taking a third-year nutrition unit consented to participate in this pragmatic mixed methods study. Data on use of the formative assessments and performance in the linked summative assessments were extracted from the learning management system and students who had undertaken the formative assessments were invited to complete a short questionnaire. 44% students completed both formative assessments. Students who undertook the dietary analysis formative assessment scored higher in the linked summative assessment than those who did not (82% v. 74%, $p < 0.05$). For the food record summative assessment, scores were similar for students who did and did not complete the linked formative assessment. Students with all levels of achievement used the formative assessments but particularly the higher achievers (50% v. 30% v. 20% of highest, middle, and lowest tertials of achievement in a separate assessment). Both formative assessments were judged by students to be ‘very helpful’ and ‘very useful’ for learning. Conclusions: Optional formative assessment tasks within a redesigned dietary assessment assignment were associated with favourable outcomes from students’ perspectives. Use of a formative assessment assignment related to dietary analysis was associated with improved scores in a linked summative assessment, but this was not observed for a formative assessment related to food records.

References

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