
A pilot study investigating the expectations and experiences of international students based on food related undergraduate programmes

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Abstract

The aim of this pilot study was to investigate international students' expectations and experiences of teaching and learning in semester one on undergraduate food based courses, and to investigate if there were any differences between Level 1, 2 and 3 students. Components of two validated questionnaires were used to address these aims. Expectations and experiences of teaching and learning were generally positive for the whole cohort. There were some small differences between Level 1, 2 and 3 students. Furthermore, 4 components from the experiences of teaching and learning part of the questionnaire showed significant differences between groups. Future research may focus on comparisons between 'home' and international students, and studies should be suitably powered and include males and females, mature students and students from varied international backgrounds.

Introduction

Since the late 1980's the internationalisation of higher education institutions has been identified as a clear trend (Bennell & Pearce 2003), and the recruitment of international students to degree programmes has increased. This increase has been relatively rapid. Where the proportion of the student population made up by international students was 11% in 2000-2001, this figure had risen to 16% in 2004 (Carroll & Ryan 2005). UK based institutions target the recruitment of international students as a result of the declining resource from funding councils, and out of a need to generate income independently (Harris 1995). The influx of international students into higher education has highlighted a number of difficulties and issues faced by universities and international students. These difficulties were not fully appreciated when using existing understandings of 'learners needs' (Robertson et al. 2000). There is a responsibility for higher education institutions and teachers to; promote inclusivity, work effectively with diversity, develop

an understanding of how people learn and develop learning communities. These values are closely related to the internationalisation of institutions and working with more diverse student populations.

Expectations of students are frequently different to experiences of teaching and learning, particularly for international students hailing from varied educational backgrounds. International students have been described as often arriving at an overseas institution with the expectation that the educational system will not differ in comparison to their 'home' system (Samuelowicz 1987), creating difficulties when they first arrive at their new institution. As UK institutions place substantial emphasis on independent working and active learning (Varga-Atkins & Ashcroft 2004) international students may have difficulties in adjusting to this type of learning if arriving from education systems where alternative methods of study are the norm, e.g. conformist systems (Harris 1995).

Other evidence describes a gap or mismatch between theory and practice, where international students' perceptions of what was being delivered in teaching sessions falls short of what lecturers perceive they had delivered (Ryan 2005). It is this gap in expectations between lecturers and international students that presents challenges. For example, a mismatch in expectations and experiences can manifest as stress markers in students and is therefore an important variable to consider when creating a positive learning environment (Burns 1991; Robertson et al. 2000).

Other research used survey methods to assess the experiences of home and international students at three South Australian universities (Mullins et al. 1995). This research found that although international students experienced more problems, and experienced them to a more serious degree than their Australian peers, the nature of these problems was very similar between groups. Similar evidence examining teaching and learning in international students suggests that international students may be likened to 'canaries in the coalmine' (Carroll & Ryan 2005), where all students experience similar problems to various degrees, and any improvements made to teaching and learning environments as a result of investigations into international students' experiences would benefit all students.

Despite the problems faced by students attending universities overseas, there is extremely limited empirical research into the expectations and experiences of international undergraduates based on food related programmes. Such degree programmes have specific cultural issues due to the importance of food in national identity and cultural practices. Furthermore, there is little evidence focussed on the progression of international students through university degree programmes, where problems and issues faced

by students in Level 1 may differ to those experienced by Level 3 students. The aims of this study were to investigate international students' expectations and experiences of teaching and learning in the first semester of undergraduate food based courses at the institution, and to investigate if expectations and experiences differ between Level 1, 2 and 3 students.

Methods

A 63 component self-reported questionnaire was constructed using selected items from two validated questionnaires; the College Student Expectations Questionnaire (CSXQ (Kuh & Pace 1998)) and the Shortened Experiences of Teaching and Learning Questionnaire (SETLQ 2005). The selected components of the CSXQ assessed:

- Course learning: participants rated how often they expected to complete nine tasks over the academic year, including taking notes and preparing projects.
- Writing: participants rated how often they expected they would have to complete five tasks, including revising written work prior to submission.
- Student acquaintances: participants rated how often they expected to make friends or have serious discussions with people of varied backgrounds and interests.
- Reading/writing: participants rated how many times they expected to complete four tasks, including reading textbooks over the coming academic year.

The remainder of the questionnaire used the following components from the SETLQ:

- 'What do you hope to get from the experience of higher education?'
- Approaches to learning and studying
- Experiences of teaching and learning, including aims and congruence, choice allowed teaching and learning, assessing understanding, staff enthusiasm and support from both staff and students.

The questionnaire was given to a convenience sample of international undergraduates (see appendix ii for questionnaire). Participant information was detailed on the questionnaire, and participants were informed that completing the questionnaire constituted consent. Respondents were assured that anonymity and confidentiality would be maintained, and that they may withdraw from the study at any point without providing a reason.

Twenty-three participants completed the questionnaire ($n= 8$ Level 1, 8 Level 2, 7 Level 3 students). All participants were female and indicated that English was not their first language. Participants were all enrolled in: Home Economics, Community Nutrition or Food and Nutrition undergraduate degree programmes.

Questionnaire responses were numerically coded, and responses to SETLQ components from the 'what do you expect to get from the experience of higher education?' section were used to calculate scores for learning orientation. Components from the 'approaches to learning and studying' section were used to calculate scores for approaches to learning (SETLQ 2005). Statistical analyses were completed using SPSS V.15, and as data did not meet the requirements for parametric analyses differences between Level 1, 2 and 3 students were analysed using the Kruskal-Wallis test. Significant differences were

further investigated using Mann-Whitney post hoc analyses. An alpha value of $p \leq 0.05$ was used to detect significance throughout.

Results

Figure 1 displays the median values for the expectations components of the questionnaire, Figure 2 displays the median values for the experiences components of the questionnaire, and Figure 3 displays the median learning orientation and learning approach scores for the overall cohort. For Figure 1, components 1-19 were rated on a scale from 1 = very often to 4 = never. The most common median value was 'often', therefore students felt they were often expected to complete the tasks or activities for each component, with the exception of components: 2 (taking detailed notes, very often); 3 (contribute to class discussions, occasionally); 6 (summarise major points and information from readings or lecture notes, very often); 14 (write a major report, occasionally); 18 (serious discussions with students whose philosophy of life is very different, occasionally) and 19 (serious discussions with students whose religious beliefs are very different, occasionally). Components 20-23 were measured on a five point scale, from 'none' to 20+. Median values corresponded to the 5-10 times option for all tasks including reading textbooks and writing essays, which may be viewed as low given the amount of private study time apportioned to modules.

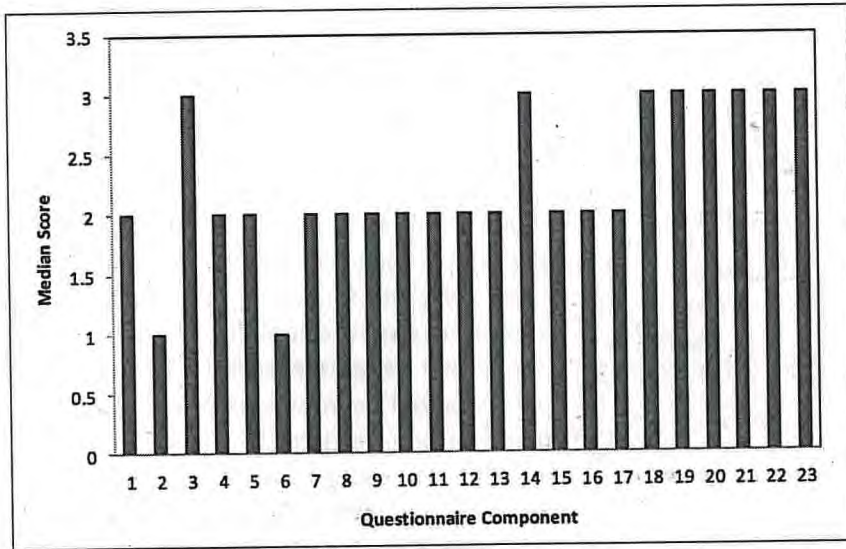


Figure 1 Group median values for expectations components

For the components included in Figure 2, numbers 24-30 assessed levels of agreement with statements measured on a 1-5 scale, from very strongly to very weakly/not at all. The median cohort response was 'very strongly' agreed for four of the seven statements. The cohort 'fairly strongly' agreed with two components regarding sport and interesting/stimulating courses, and the median response was 'somewhat/not sure' to the statement 'when I look back, I sometimes wonder why I ever decided to come here', which is a relatively worrying response given the statement.

Components 31-63 required participants to rate how strongly they agreed with statements measured on a five point scale from agree to disagree. The median response was 'agree' for 11 out of the 33 components. The median response to 21 out of the 33 components was 'agree somewhat', with only one median response of 'unsure' for component 46: 'I've just been going through the motions of studying without seeing where I'm going.'

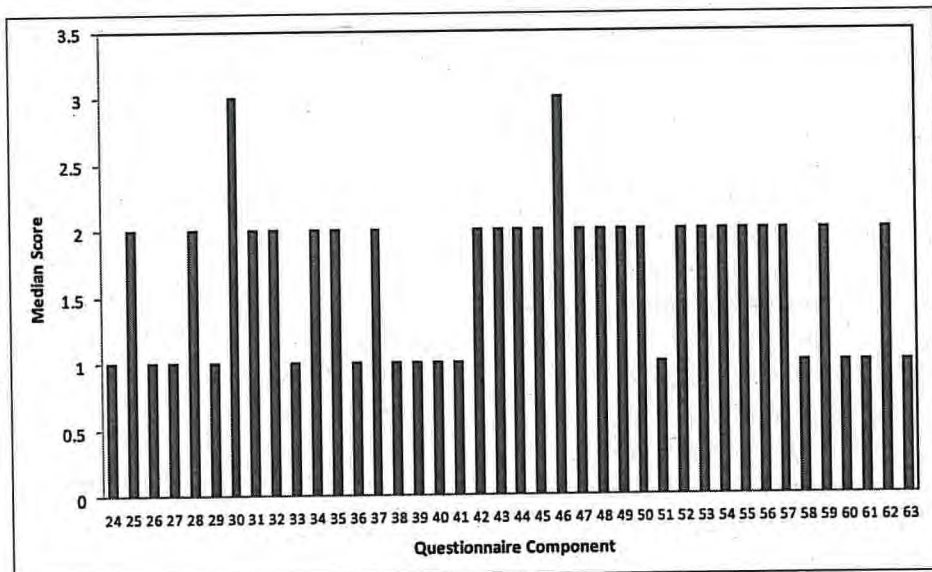


Figure 2 Group median values for experiences components

For Figure 3, the possible range of scores for intrinsic learning orientation was 3-15, the lower the score representing stronger intrinsic learning orientation. The median score of 4 suggests a strong intrinsic learning orientation for the cohort. The range of possible scores for social and personal orientation ranged from 2-10, again, the lower the score the stronger the social and personal orientation, so the cohort results suggest a strong social and personal orientation as well as a strong intrinsic orientation, a conflicting finding. For the learning approaches, the range of possible scores for surface approaches for learning was five to 20, with five representing the strong rating for surface approaches. The cohort median value was 10,

a score suggesting a slight tendency for surface approaches. Deep approaches to learning scores had a possible range of nine to 40, and lower values represent stronger tendency for deep approaches. The median value was 16, suggesting a preference for deep approaches to learning. For organised effort approaches the possible scores ranged from four to 20, with lower values representing more organised approaches to learning. The group median value at seven suggests the group took an organised approach to learning. The results are relatively difficult to interpret, as group median values suggest the participants adopt surface (weak), deep and organised approaches to learning.

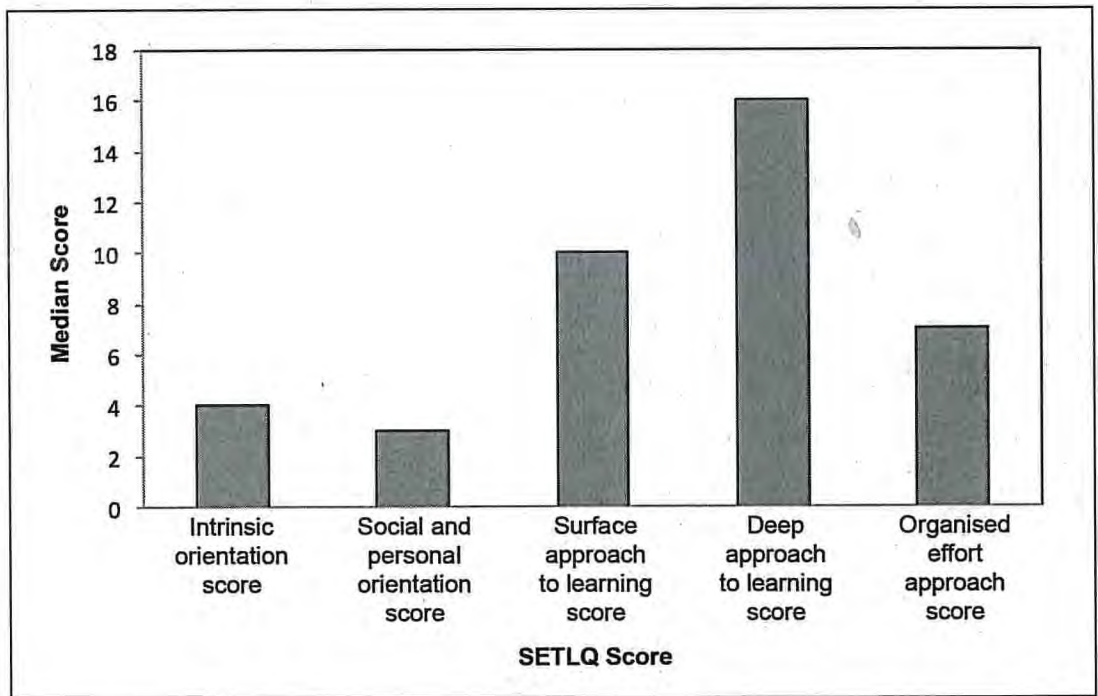


Figure 3 Group median learning orientations and approaches scores

When comparing group median data (Level 1, 2 and 3 students), for the expectations part of the questionnaire, all three groups responded similarly. Similar expectations for the 'course learning' section of the questionnaire were observed, and none of the groups median values fell into the 'never' option for any components. For the 'writing' section the median values reported for Level 3 students were higher than Level 1 or 2 students, indicating that Level 3 students typically expected to complete the writing tasks 'occasionally' in comparison to Level 2 students median values ('very often' to 'often'), and Level 1 students ('often'). Responses to the 'student acquaintances' statements were similar between groups. For the reading and writing section of the questionnaire, Level 1 and 2 students expected to complete the tasks more frequently than Level 3 students (with the exception of reading assigned textbooks) according to median scores.

For the experiences part of the questionnaire median values showed close similarities between Level 1, 2 and 3 students. Level 2 students generally showed lower median scores for questionnaire components, suggesting Level 2 students were more likely to agree with statements. Level 3 students showed higher median results suggesting they 'agreed somewhat' with statements or were 'unsure'. For example, Level 3 students 'agreed somewhat' with statements regarding looking at evidence to reach conclusions, and the usefulness of handouts, where Level 1 and 2 students agreed with those statements. Level 3 students' median value for the statement 'I've tended to take what we've been taught at face value without questioning it much' was 'unsure', where Levels 1 and 2 agreed somewhat with this statement. Furthermore, Level 3 students were 'unsure' about where set work fitted in with what they were supposed to learn, and were also 'unsure' whether teaching on the module helped them to think about the

evidence underpinning different views. For learning orientations, intrinsic orientation scores were similar for Levels 1 and 2, with a higher score for Level 3 students (4, 3.5 and 5 respectively). This suggests that Level 3 participants were less intrinsically orientated. Level 1 students had a slightly higher social and personal orientation score (3.5 for Level 1 verses 2 for Levels 2 and 3), suggesting they were less socially or personally orientated. For approaches to learning, scores were similar for surface approaches, where Level 3 students had a higher score for deep approaches to learning (18 for Level 3 verses 16 for Levels 1 and 2), which is surprising considering lower scores indicate higher Levels of deep learning.

Results of Kruskal-Wallis analyses described few significant differences between groups. There were no significant differences in learning orientation, or approaches to learning scores ($p \leq 0.05$). There were some significant differences between the groups including: 'I hope things I learn will help me develop as a person and broaden my horizons' ($p \leq 0.05$), and 'I've looked at evidence carefully to reach my own conclusion about what I'm studying' ($p \leq 0.05$). Further, two other questions described significant differences between groups: 'I could see how the set work fitted in with what we were supposed to learn' ($p \leq 0.01$), and 'staff were patient in explaining things which seemed difficult to grasp' ($p \leq 0.05$), however this final question reached significance using the Monte-Carlo value only.

Figure 4 displays the group median results for questionnaire components where significant differences were found. The Figure clearly shows that the group median values for 'Broaden horizons' were consistent across groups. Level 3 students median result for 'look at evidence' was 'agree somewhat' in comparison to Level 1 and 2 students' median response of 'agree'. For the 'set work fitted in' component, Level 3 students'

median score corresponded to the 'unsure' response, where Level 1 students agreed somewhat with the statement, and Level 2 students agreed. For the final questionnaire component 'staff were patient' Level 1 students' median value was 'unsure', where Level 3 students agreed somewhat with the statement, and Level 2 students agreed with the statement.

Post hoc analyses found that Level 3 students displayed lower Levels of agreement with the statement 'I hope things I learn will help me to develop as a person and broaden my horizons' ($p \leq 0.05$), furthermore, Level 3 students were less likely to agree with the statement 'I've looked at evidence carefully to reach my own conclusion about what I am studying' ($p \leq 0.05$), finally Level 3 students were also less likely to agree with the statement 'I could see how the set work fitted in with what we were supposed to learn' ($p \leq 0.05$) when compared to Level 1 and 2 students. Level 1 students were less likely than Level 2 students to agree with the statement 'staff were patient in explaining things which seemed difficult to grasp' ($p \leq 0.05$).

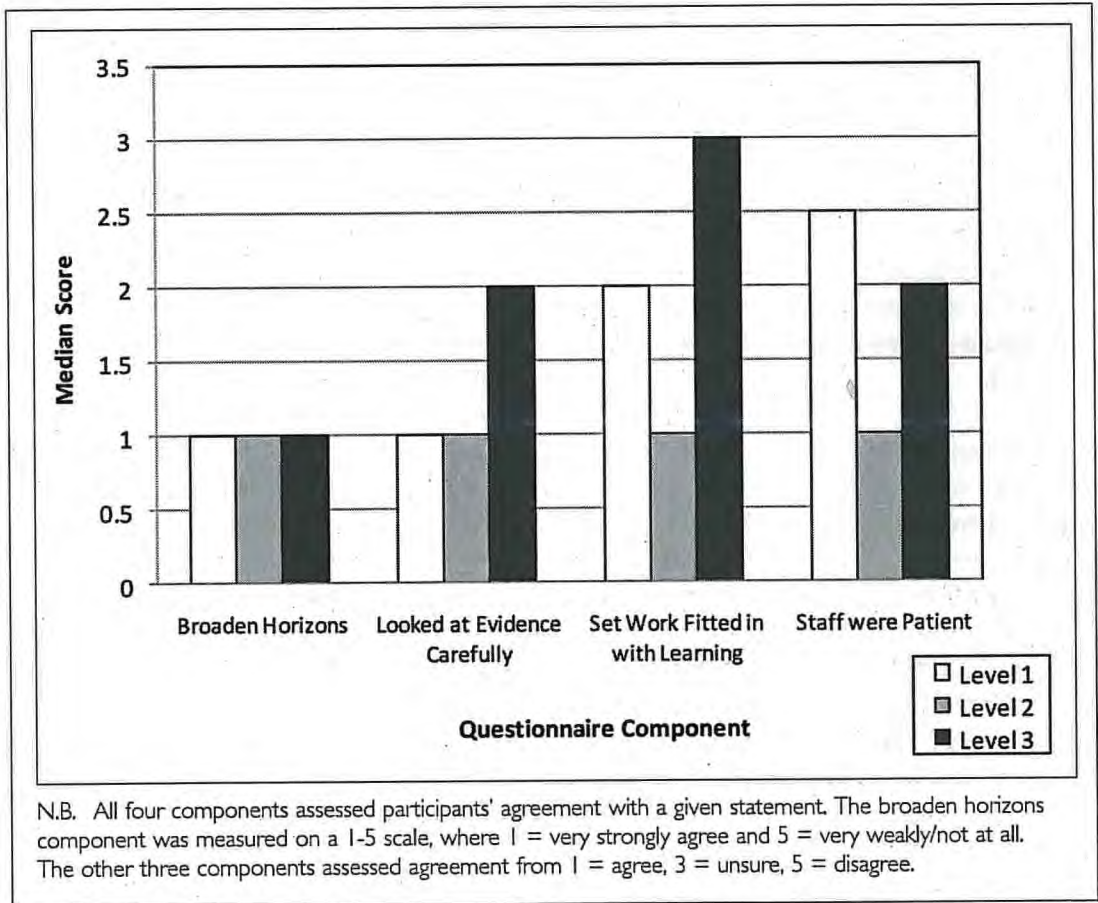


Figure 4 Median results by Level of study for four questionnaire components

Discussion

The aim of this study was to investigate international students' expectations and experiences of teaching and learning in the first semester on undergraduate food based courses at Liverpool John Moores University, and to investigate if expectations and experiences differed between Level 1, 2 and 3 students. When examining data for the whole cohort, most responses either 'agreed' or 'agreed somewhat' with statements, which may be viewed as a positive finding. There were some interesting responses, for example, for how often the students expected to read textbooks in the coming academic year, the median group response was five to 10 times, which seems low given the substantial amount of emphasis placed on independent working in higher education (Varga-Atkins & Ashcroft 2004). This suggests a potential mismatch between both the expectations of learning from the student and expectations from the teacher/lecturer and between expectations and experiences, which may result in difficulties (Ryan 2005), and manifestations of stress (Burns 1991; Robertson et al. 2000).

For the component '*when I look back, I sometimes wonder why I ever decided to come here*' the median response was 'somewhat/not sure', where as teachers we would hope that the median response would be 'rather weakly' or 'not at all'. Moreover the response to component 46, '*I've just been going through the motions of studying without seeing where I'm going*' was 'unsure', where again we would hope, as teachers, the response to this statement would be 'disagree'. The groups' responses to components 30 and 46 may reflect general apathy surrounding university life and warrant further investigation.

There were some contradictory findings when assessing group median results, where for the overall cohort, the median values described a

surface, deep and organised effort approach to learning for the group. This may be accurate. Students may take surface approaches to some aspects of learning and deeper approaches to others. In addition the limited number of components included in the SETLQ to assess learning styles and the small sample size may have contributed to the contradictory findings.

There were some minor differences in median group responses to the questions where Level 1 and 2 students expected to complete reading and writing tasks more frequently than Level 3 students, were less likely to agree with some statements on the experiences part of the questionnaire including taking information at face value, and showed a higher preference for deep approaches to learning. For analyses by group there were no significant differences in responses to the CSXQ components. This may reflect similarities between the international students' expectations of university life and academic demands. It may also be a product of the timing of questionnaire administration. Students completed the questionnaire during the second half of semester one, and participants may have adjusted to the demands of the university system and altered their expectations accordingly. Furthermore, expectations may be more relevant in Level 1 than in the latter levels where adjustment to the UK educational system may be more advanced. Comparisons to home students may provide more meaningful findings.

There were some significant differences between groups in the SETLQ components. Results suggested that Level 3 students showed lower Levels of agreement with the statement '*I hope things I learn will help me develop as a person and broaden my horizons.*' Level 3 students may be more used to higher education, and over the previous 2 years of study the students may have 'sufficiently' broadened their horizons or developed as a person. However, the median

score for this statement was the same across groups, therefore the statistical variation may paint a misleading picture.

Level 3 students were less likely to agree with the statement *'I've looked at evidence carefully to reach my own conclusion about what I am studying'*, a statement that Level 3 students may have been expected to agree with more strongly than the other groups, when considering the emphasis placed on independent working and metacognition in Level 3. Despite this, Level 3 students may have developed strategic approaches to learning where their own conclusions were viewed as non-essential in gaining acceptable marks. This is somewhat speculative as there were no significant differences in approaches to learning between groups. Finally Level 3 students were less likely to agree with the statement *'I could see how set work fitted in with what we were supposed to learn'*, suggesting a perceived lack of alignment between set work and learning outcomes in the Level 3 students, which may have an influence on both problems faced by students, and the effectiveness of the module studied (Biggs, 1996). This warrants further investigation to assess whether Level 3 modules are sufficiently aligned and fit for purpose for Level 3 students.

The only significant difference between Level 1 and 2 students was that Level 1 students were less likely to agree with the statement *'staff were patient in explaining things which seemed difficult to grasp'*. This perceived 'lack of patience' may point to a mismatch between levels of patience or support expected by the student and given by the tutor. The higher ratings for the Level 2 and 3 groups may reflect students adjusting to learning in higher education in the UK, where substantial emphasis is placed on independent learning. An interesting comparison would be between Level 1 home and international students in their perceptions of staff patience to assess if

this finding is due to being 'new' to higher education, or if this finding is due to being 'new' and hailing from different educational systems where students may experience different teaching and learning methods and requirements (Harris 1995; Varga-Atkins & Ashcroft 2004).

The study has a number of limitations. The low participant numbers involved limits the scope and generalisability of findings. Moreover, all participants were female, English was not any of the participants' first language, and there was no information regarding the home countries of participants. In terms of the methods used, self-reported questionnaires are subject to responder bias, misunderstanding and reliability issues. Instructions were given for each question, and as the questionnaire components were previously validated the wording of questions were pre-defined. Despite being validated some questions may have been misunderstood by participants, thus representing a limitation of the chosen method. A more rigorous method may involve questionnaires and follow up interviews to gain rich, qualitative information that may not be disclosed through closed-answer questionnaires.

The present study represents pilot work, and perhaps the most obvious next step would be to compare home students with international students to assess if expectations and experiences differ between the two groups. Furthermore, higher participant numbers including more diverse groups, e.g. males and females, mature students, international students from different countries, and international students for whom English is their first language would improve the generalisability of research outcomes and the likelihood of observing some significant results. In addition, the inclusion of some qualitative data may add valuable depth to the current findings.

To summarise, the study describes some small differences between Level 1, 2 and 3 international students' experiences and expectations of teaching and learning based on food related degree programmes. Some significant differences were observed between groups, and warrant further investigation using higher participant numbers and more in-depth techniques.

■ **Lynne M. Boddy** is a Research Officer for the Centre for Tourism, Consumer and Food Studies, Faculty Education Community and Leisure and REACH Research Institute for Sport and Exercise Science, Faculty of Science

Acknowledgements

I would like to acknowledge the support of John Clarke and Carol Maynard at Liverpool John Moores University.

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