Explaining Diversity in Students' Views and Expectations about Teaching and Learning Process in Higher Education

Mohammad Alauddin*
School of Economics
The University of Queensland
Brisbane, Australia 4072
Email: m.alauddin@uq.edu.au

and

Adrian Ashman
School of Education
The University of Queensland
Brisbane, Australia 4072
Email: adrian.ashman@uq.edu.au

Abstract

This paper provides a quantitative analysis of student perceptions in regard to their views and expectations about the purpose of university study. Over 800 survey responses from students attending a leading Australian university forms the empirical basis. Factor analysis was used to explore themes (or dimensions) based on data collected via a paper-and-pencil survey. Multivariate analysis of variance was then undertaken using students' factor scores as dependent variables, and age, sex, ethnicity, study discipline, study level, and academic performance as grouping variables.

Four factors (Approach to Teaching, Active Participation, Communication and Feedback, and Clarity of Focus and Purpose) reflected students' views and expectations about the university teaching and learning process. These labels typified behaviour that reflected students' keen interest in the lecturer's teaching approach, active participation in the teaching and learning process, and the lecturers' responsiveness to students' needs. In turn, students' perceived views about and expectations were affected by their sex, ethnicity, study discipline, level of study, sex-ethnicity interaction.

Keywords: student expectations, higher education, Australia, teaching approach, active participation, clarity of focus and purpose, communication and feedback.

*Corresponding author

INTRODUCTION

A large body of literature lends credence to the view that students in institutions of higher education are primary consumers (Gruber et al., 2010; Hill, 1995; Levine, 1993; Plater, 1995; Delucchi & Korgen, 2002). Almost two decades ago, citing American experience, Levine (1993) noted the process of change in and commoditisation of higher education. Levine stated:

> All they want of higher education is simple procedures, good service, quality courses, and low costs with course quality ranked as the highest priority and price procedures, and service ranking lower. Non-traditional students (older than the traditional undergraduates; more likely to attend part-time; more likely to have families and to work; more likely to reside off rather than on campus) frequently are quite critical about these areas. They are bringing to higher education exactly the same consumer expectations that they have for every other commercial enterprise with which they deal. (p. 4).

Later, Plater (1995, p. 24) suggested:

> We can then begin to think of education as a product. Whether we feel comfortable with such terminology or not, we need to recognize that virtually every other sector of the American society has gone (or going) through a transformation that makes funding contingent upon the delivery of valued outcomes. The public we serve sees us, and our work, through the new lens; it will not much longer fund us as a self-evident good. What we do with our time, then, will be recorded by a recognition that we are becoming a constituent-based service industry or profession.

Sander et al. (2000) stated that education providers' approach to service delivery is "inside out" while the successful service industries appear to adopt an "outside in" approach. The former refers to "those inside assuming that what the students need and what they expect the teacher to give" while the latter refers to those outside "research what the customer expect of the service and then they work to provide the service that meets those customer expectations" (Zeithaml, et al., 1990, p. 51).

Another stream of literature contests the view that students are customers (Baldwin & James, 2000; Sharrock, 2000; Furedi, 2002; Smart, 2002). James (2001) cautions against branding students as 'customers' (see also Brennan & Bennington, 1999). However, they might be regarded as clients. As White (2007) stated:

> Customers demand a service with outcomes satisfactory to them; engagement in the process is not a requisite. Clients, on the other hand, do engage in a process that is appropriate with respect to content. And that is realistic with respect to assessment. It is in this sense of engagement that lies at the core of the educational enterprise. It rests in part on relationships among students, but also significantly on the relationship between students and their teachers (p. 603).

This view is echoed by Alauddin and Tisdell (2000) and Mason et al. (1995), given two considerations. Firstly, due to asymmetry of information at least some students may not able to immediately judge or appreciate the value of the information imparted and market failure may result (see e.g., Akerloff, 1970). Secondly, in contrast to the traditional customer-supply model, the customer (student) directly contributes to the quality of the good s/he acquires rendering the quality of education imparted critically dependent on the intellectual ability of and the effort by the recipient.

Despite the validity or otherwise of a view of students as customers or the academic merits of doing so, the dominant discourse in academe to students in the main are customers and teachers are being viewed as providers of service (Kreber, 2010; Kwek et al., 2010). The shifting paradigm in higher education suggests changing role of relevant academic institutions from *instruction* to *learning* (Barr & Tagg, 1995).

The university student population in the developed world embodies much more diversity than it used to until two decades ago (see, e.g., Biggs & Tang, 2007; Denson & Zhang, 2010; Gordon et al. 2010; Vardi, 2011). The underlying diversity of the student population might generate a range of views and expectations about the teaching and learning process in higher education. The relevant literature found the students' expectations varied according to a number of factors including culture (Johnson and Kumar, 2010; Shank et al., 1996; Twale et al., 1997); sex (Moore et al., 2008); academic performance (Moore et al., 2008), and age (Levine, 1993). Boulding et al. (1993) reported expectations and perceptions to change over time. These variations in expectations notwithstanding, a teaching approach underpinned by knowledge of students' expectations applying the "outside-in" approach appear to be useful as demonstrated by experience from the UK (e.g., Booth, 1997; Narasimhan, 1997) and USA (e.g., Shank et al., 1995).

The present study addresses the issue of diversity within the student population and undertakes an in-depth quantitative analysis of its impact on students' views and expectations about the teaching and learning in a university setting. The focus of the paper centres on the main research question:

> "Do students' views and expectations about teaching and learning in higher education differ according to range of variables that characterise diversity in the student population?"

The main research question is underpinned by other relevant questions as aids to an in-depth analysis and understanding of the underlying issues. These are stated as follows:

- Can the students' perceptions regarding their views and expectations about university teaching and learning be categorised into a small number of representative constructs or factors that reflect students' patterns of response.

Do these factors or constructs:

- Vary due to students' sex, and ethno-linguistic backgrounds?
- Differ according to students' study disciplines, age groups, and level within their degree program?
- Vary with students' academic performances?

Statistical analysis of the survey data are undertaken in two stages. First, factor analysis, is used to explore themes (or dimensions) within the survey. Multivariate analysis of variance (MANOVA) is then employed using students' factor scores as dependent variables, and age, sex, ethnicity, study discipline, study level, and academic performance as grouping variables. The empirical results presented later in this paper deal with these aspects.

METHODS, DATA AND RELATED ISSUES

Participants

This study uses data from a large, research intensive university using survey of students at different study levels and disciplines in 2006 and 2007 employing the instrument described later. Over 1,000 students were surveyed. However, excluding the missing observations the

usable sample size stood around 800 responses. Table 1 provides information about the participants. Respondents aged 25 years or younger predominated, accounting for 93% of the observations.

The project aimed to create the largest number of discipline categories possible. Overall, business and related disciplines, and the social science disciplines dominated the data while science disciplines were well-represented. Nearly 85% of the students were in undergraduate programs. Nearly two thirds of these were in first- and second-year courses.

Student academic performance was estimated from their reported grade-point average (GPA) while acknowledging that it may not always measure the intrinsic qualities that were the focus of attention in the study as some students whose sole aim is to maximise grades than acquire knowledge. The choice of cut-off points involved some trial and error with the final one (Table 1) having a sufficient number of observations in each category to allow for statistical power in the analyses.

The majority of students were enrolled on full-time and full-fee paying bases. Finally, four variables were chosen to reflect ethnicity: non-English language as mother tongue, overseas students, those born and/or raised in Australia, medium of instruction prior to enrolment in the Australian degree program.

Procedure

Ethical clearance preceded the initiation of research. Lecturers were contacted for gatekeeper permission to undertake the surveys. The researchers approached 20 lecturers in various disciplines. Fourteen consented to their class groups being used for the survey.

The researcher informed all students and the relevant lecturing staff about the nature of the study and assured them of anonymity and confidentiality. A consent form and a participation information sheet about the nature and purpose of the research were given to each student in the participating classes. The lecturers and students were asked to give written consent.

The survey was implemented in the 6^{th} or 7^{th} week of the semester. Students received an electronic version of the questionnaire a day or so before the survey date. In the class, they received the hardcopies, which they completed and returned to the researcher. Respondents received necessary clarification upon request. Students took about 20 minutes to complete the questionnaire in the instrument.

Table 1: Frequency distribution of the probable independent variables

Variable	Description	% (Frequency)
Age (Student's age, *N* = 1,073)		
Group 1	Student aged ≤ 20 years	67.0 (719)
Group 2	Student aged >20&≤ 25 years	26.0 (279)
Group 3	Student aged 25 years	7.0 (75)
Study Discipline (Student's study discipline, *N* = 773)		
Discipline 1	Economics single or double majors outside the Faculty of Business Economics & Law (BEL)	26.8 (207)
Discipline 2	Economics double major within BEL	12.8 (99)
Discipline 3	Single and double non-economics majors within BEL	29.6 (229)
Discipline 4	Single or double majors in arts or social science disciplines	16.2 (125)
Discipline 5	Single or double majors in science disciplines	8.5 (66)
Discipline 6	Single or double majors in disciplines not included elsewhere	6.1 (47)
Study Level (Student's level in the degree program, *N* = 1,027)		
Lower undergraduates	First and second year students	63.6 (653)
Upper undergraduates	Third year students	21.1 (217)
Honours and postgraduates	Honours & postgraduate students	15.3 (157)
Student Performance (Student's grade point average, GPA 1-7 scale, *N* = 1,073)		
Low	GPA ≤ 5.0	57.9 (621)
Medium	GPA > 5.0 & ≤ 6.2	28.8 (309)
High	GPA > 6.2	13.3 (143)
Sex (Student's sex, *N* = 832)		
Male	If the student was a male	48.0 (399)
Female	If the student was a female	52.0 (433)
Enrolment (Student's enrolment status, *N* = 834)		
Full-time	If the student was enrolled full-time	97.2 (811)
Part-time	If the student was enrolled part-time	2.8 (23)
Mother Tongue (Student's mother tongue, *N* = 837)		
English	A student with English as mother tongue	65.1 (545)
Non-English	A student with any non-English language as mother tongue	34.9 (292)

Table 1 *continued*

Overseas (student's residential status, *N* = 837)		
Yes	If the respondent was an overseas student	30.1 (252)
No	If the respondent was not an overseas student	69.9 (585)
English (Student's prior medium of instruction, *N* = 834)		
Yes	If the student completed her/his studies before this degree program in English	83.2 (694)
No	If the student did not complete her/his studies before this degree program in English	16.8 (140)
Born (country of birth and/or upbringing, *N* = 833)		
Yes	If the student was born and/or brought up in Australia	58.3 (488)
No	If the student was not born and/or brought up in Australia	41.7 (347)
Full-Fee (If the student was paying full fee, *N* = 833)		
Yes	If the student was paying full-fee	37.0 (310)
No	If the student was not paying full-fee	63.0 (527)

Instrument

The starting point for the development of the instrument was Biggs' (Biggs, 1987) Learning Process Questionnaire (LPQ) and Study Process Questionnaire (SPQ). This was generated in the first major investigation of students' approaches to learning and study. Since Biggs (1987), Kember and Leung (1998), Biggs et al. (2001) and Kember et al. (2004) have examined the dimensionality of learning approaches. Kember et al. extended their earlier analysis of student approaches to learning using a revised version of LPQ and SPQ that took cognisance of the significant changes in the higher education sector. A number of items were also adapted from the University of Queensland Student Experience Survey, 2003 (UQ, 2004).

The instrument was refined through regular discussions with academics in the Schools of Economics and Education and through regular discussions (both individual and in small groups) with students from different study disciplines, ethnic backgrounds, age groups, sex, academic abilities, and study level. These discussions helped articulate the ideas that the instrument embodies. Thus, the final version of the instrument with 59 items is the outcome of extensive expert and stakeholder consultation which provided foundation for content validity. The items instrument broadly related to students' views and expectations about:

1. The lecture program (13 items) such as, “Provides a good introduction and overview of each topic”, “Focuses on the central message embodied in each topic”, and “Be entertaining”;

2. Reading materials, presentation, and delivery (8 items) including, “I want the recommended text, if any, and other materials to give me a good understanding of the course”, and “I want the lecture handouts to be useful learning aids”;

3. Tutorial/lab session (7 items) including, “I want the tutor/demonstrator to encourage open discussion on theory and applications”, and “I like group learning sessions”;

4. Course content (7 items) including, “The topics covered must be highly relevant real world issues”, and “The contents must be intellectually stimulating”;

5. Assessment procedure (4 items) including, “Course assessment requirements should be paced throughout the semester rather than being concentrated toward the end of the semester”, “Components of the assessment should evaluate my knowledge, understanding and skills”;

6. Consultation process (6 items), for example, “I want flexibility in consultation so that I can meet the teaching staff outside the set hours”, and “I prefer face-to-face contact with teaching staff rather than communicating by email”;

7. Feedback and communication mechanism (6 items), for example, “I want feedback sessions soon after publication of results of tests or assignments”, and “Regular emails/notices informing of important course related matters are an effective way of communication”; and

8. Lecturing staff (8 items) including, “Encourage me to think in new ways”, and “Be enthusiastic and committed to their teaching”.

Students’ responses to each item were given on a 5-point Likert-type scale with “1” representing strong disagreement while “5” representing strong agreement.

RESULTS

Factors Underlying Students' Views and Expectations

Factor analysis was employed to derive an orderly simplification of the variables (i.e., items) to a small number of representative constructs or factors that reflect students' patterns of response. Factor analysis brings together items to which students respond in similar way. Criteria permitting factor analysis requires that the variables have roughly normal distributions and the data are at least ordinal (Brace et al., 2009). Field (2005) suggested that the data be measured at an interval scale, "which Likert scales are, perhaps wrongly, assumed to be!" (p. 641). The data did not satisfy formal inference tests of normality such as the Kolmogorov-Smirnov and Shapiro-Wilk tests. However, these tests have limitations when applied to large samples so a statistically significant test does not necessarily indicate whether the deviation from normality biases any further statistical procedures (see Field, 2005; Tabachnick & Fidell, 2007). The focus was more on the shape of the distributions as suggested by Tabachnick and Fidell (2007), Field (2005), and Stevens (2002). The histograms of the items did not seem to show any marked departure from normality. Furthermore, the statistical analysis undertaken in this paper relies on a sample of nearly 800 participants. Because of this, and other diagnostics discussed subsequently, factor analysis was likely to yield distinct and reliable factors.

Factor analysis reduced the 59 items to four factors. Initially, all 59 variables were included. However, for the sake of interpretation, the final analysis excluded the following three variables leaving 56 items for the extraction of four factors. These items did not load significantly on any factor and their inclusion reduced the percentage of variance explained.

- "I want the lecture notes for each lecture to be sent by email and posted on the web before the lecture";
- "I prefer PowerPoint presentations to OHTs"; and
- "I want the tutor/demonstrator to demonstrate problem-solving".

The criteria involving percentage of variance explained by the extracted factors, and their internal consistency determined the number of variables included and the factors extracted.

The four factors explained nearly 40% of the total variance. This explanatory power appeared to be satisfactory. Furthermore, it is evident from the values of Cronbach's α (.904, .824, .843, and .834 for Factor 1, Factor 2, Factor 3, and Factor 4 respectively) that the variables defining these factors were internally consistent.

Extracted factors and their structure

The results of factor analysis are set out in Table 2. The relevant scree plot (not presented here for brevity) showed the point of inflection after Factor 4, suggesting that number of factors extracted was appropriate. The remainder of this section discusses salient features of factor analysis results reported in Table 2.

Factor 1: Approach to Teaching: The 18 items underlying this factor related to: (a) lecturer's expertise in the field of study, intellectual challenge and stimulation that s/he is able to provide, respect and enthusiasm which the lecturer displays; (b) course content, its quality, and relevance; and (c) various components and instruments of assessment and their timing.

On examination of the 18 variables, one can find that most of these expectations and views pivot about the lecturer's approach and attributes to teaching. This factor explained nearly 13% of the total variance. This compared favourably with each of the other factors with each explaining about 9% of the total variance.

Five of the 18 items constructing Approach to Teaching had factor loadings $\geq .65$ and seemed to stand out. These related to expectations about the lecturer's ability to stimulate their interest in, and enhance understanding of, a study discipline: staff's encouragement to think in innovative ways, communicating enthusiasm and commitment to teaching, and providing intellectual challenge for the students. A further six items with loadings between .50 and .60 followed these five. Some of these items reinforced preferences for intellectual challenge, stimulation, and an optimal mix of theory and applications.

Factor 2: Active Participation: Twelve items load on to Factor 2 and define responses in terms of active participation and practical value of course contents and the mode of presentation. These included: (a) active participation in learning sessions; and (b) practicality of contents and presentation of materials in learning sessions. Factor 2, therefore, related to engagement and enfranchisement in the teaching and learning process.

Two items with factor loadings > .70 represented preference for group learning sessions. The next three items, with factor loadings between .50 and .60 related to participation through encouragement of open discussion and consultation.

Factor 3: Communication and Feedback: The 13 items reflecting this construct encompassed a multitude of views and expectations related to communication with, and feedback from, teaching staff. They related to: (a) timing of publication of assignment marks, feedback and its nature and quality; and (b) consultation, communication, and timely availability of lecture materials. A majority of items constituting this factor reflected various aspects of communication and feedback. "I want feedback sessions soon after publication of results of tests or assignments" stands out with a factor loading of .671. The next eight items with factor loadings between .50 and .60 underscore views and expectations about the promptness of publication of results of different instruments of progressive assessment and communications from staff, nature, and quality of feedback. Thus, all 13 items appear to convey the central message: Communication and Feedback.

Table 2: Four probable factors reflecting views and expectations in higher education

Factor 1: Lecturer's Approach to Teaching [Approach to Teaching] Description	Loading
I expect the lecturing staff to teach in a way that stimulates my interest in the discipline	.690
I expect the lecturing staff to encourage me to think in new ways	.685
I expect the lecturing staff to challenge and extend me intellectually	.665
I expect the lecturing staff to teach in a way that increases my understanding of the discipline	.658
I expect the lecturing staff to be enthusiastic and committed to their teaching	.650
The contents must be intellectually stimulating	.581
I expect the lecturing staff to treat me with courtesy and respect	.580
I expect the lecturing staff to draw on current research and development	.576
Different course components (e.g., lectures, lab sessions, tutorials and all parts of the assessment) must be well integrated and complement one another	.531
There must a good mix of theory and applications	.515
The contents must be intellectually challenging	.499
I expect the lecturing staff to be experts in their fields	.479
Components of the assessment should evaluate my knowledge, understanding, and skills	.475
I want the recommended text, if any, and other materials to give me a good understanding of the course	.449
Course assessment requirements should be paced throughout the semester rather than being concentrated toward the end of the semester	.415
Different course components (lectures, lab sessions, tutorials and all parts of the assessment) must be consistent with the aims and objectives of the course.	.396
Marking criteria should be made clear at the beginning and reinforced at regular intervals	.385
Any final exam should be worth no more than 60 per cent	.309

Table 2 *continued*

Factor 2: Active Participation and Practical Course Content [Active Participation]	
I like group learning sessions	.717
I like encouragement to solve problem in small groups	.707
I want the tutor/demonstrator to encourage open discussion on theory and applications	.588
I like emphasis on the active participation in problem-solving and class discussion	.572
I want the lecture session to emphasise the importance of consultation with the staff on a regular basis	.516
I like opportunities to ask questions	.470
I want the lecture session to emphasise the importance of regular attendance at lab/tutorial sessions	.453
The topics covered must be highly practical	.437
I think that students should be encouraged to raise any issues that were not addressed in the lecture	.426
I want the lecture session to emphasise thinking rather than memorising	.405
The topics covered must be highly relevant real world issues	.389
A combination of PowerPoint, OHTs and use of black/white board make a greater impact on my learning than any one of them individually.	.329
Factor 3: Communication and Feedback	
I want feedback sessions soon after publication of results of tests or assignments	.671
I want feedback on my work to show me where I went wrong	.566
I want flexibility in consultation so that I can meet the teaching staff outside the set hours	.559
I want publication of results of tests and assignments within a week	.558
Feedback sessions should improve my learning skills and course outcomes	.541
I want opportunities to consult the teaching staff at critical times (e.g., mid-semester, assignments)	.533
I want a clear emphasis on consultation with a list of problems	.530
Feedback sessions should identify my strengths and weaknesses and give suggestions for improvement	.527
I want replies to my email messages within 2 days	.506
I prefer face-to-face contact with teaching staff rather than communicating with email	.463
I want hard copies of lecture notes on all topics to be made available at the beginning of the semester	.445
The lecturer/tutor/demonstrator should set aside an adequate number of hours for consultation with students	.434
Regular emails/notices informing of important course related matters are an effective way of communication	.423
Factor 4: Clarity of Focus and Purpose	
I want the lecture session to emphasise applications and examples	.589
I want the lecture session to clearly set out the learning objectives in each topic	.576
I want the lecture session to focus on the central message embodied in each topic	.571
I want the lecture session to demonstrate applications of techniques and methods	.564
I want the lecture session to emphasise the importance of critical analysis	.555
I want the lecture session to clearly set out the links among learning objectives of the course	.544
I want the lecture session to provide diagrams, graphs and charts to illustrate and explain concepts and their applications	.542
I want the lecture session to provide a good introduction and overview of each topic	.516
I want the lecture session to state clearly how the graduate attributes are achieved	.489
I want the lecture handouts to be useful learning aids	.423
I want hard copies of lecture notes on every topic	.404
I want the lecture session to be entertaining	.369
I want visual presentations using PowerPoint to be very effective learning aids.	.350

Thirteen items underpin **Factor 4: Clarity of Focus and Purpose**. They related to a preference for clarity of purpose for each lecture topic. These included: (a) explanation of concepts/theories with applications and examples, charts and visual presentations, and critical and analytical depth; and (b) clear focus on learning objectives and linking various components of assessment. Eight items with factor loadings >.50 captured the intrinsic message: Clarity of Focus and Purpose**.**

The remainder of this paper examines the extent to which these extracted factors (as dependent variables) varied according to the grouping variables stated in the preceding section.

Multivariate Analysis of Variance

Consistent with the usual practice it is useful to discuss whether the three assumptions about multivariate normality, homogeneity of covariance matrices, and absence of multicollinearity and singularity have been satisfied.

None of the four dependent variables (Approach to Teaching, Active Participation and Practical Course Content, Communication and Feedback, and Clarity of Focus and Purpose) satisfied the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality. However, the relevant histograms did not appear to show any marked departure from normality. As suggested by Stevens (2002), the bivariate scatter plots appeared to be approximately elliptical. The histograms and bivariate scatter plots are not presented here for brevity.

Levene's test of equality of error variances was not significant for any of the dependent variables, respective *p*-values were .722, .267, .522, and 622 for Factors 1, 2, 3 and 4, which satisfied the assumption of homogeneity of covariance matrices. Furthermore, a correlation matrix suggested the absence of multicollinearity and non-singularity. Thus, while the multivariate normality did not appear to be fully satisfied the probability of Type I error was likely to be low and the power of tests reasonably high, given that this study applied a critical *p*-value < .01 and Bonferroni correction.

Multivariate test results

MANOVA was carried out with Age (three groups), Study Discipline (six groups), Level (three groups), Student Performance (three groups), Ethnicity (two groups), and Sex (two groups) as independent (grouping) variables, with four dependent variables: Approach to Teaching, Active Participation, Communication and Feedback, and Clarity of Focus and Purpose.

Detailed multivariate test results are not presented here for brevity. From the values of all the relevant test statistics, including Hotelling's T^2 and Wilks' λ and their statistical significance, it was evident that one could reject the null hypothesis of no-between group differences in: Age ($p< .001$); Sex ($p< .0001$); Ethnicity ($p< .0001$); Study discipline ($p< .007$); and Study level ($p< .002$). Note that Student performance was not a significant grouping variable.

From the results of the multivariate tests, one could conclude that there were differences between/among groups on the dependent variables that reflected students' views and expectations about teaching and learning in higher education. An analysis of the univariate statistics is undertaken to discover the sources of these significant group differences.

Univariate test results

Sex: Only Approach to Teaching, and Communication and Feedback differed according to Sex (see Table 3 and Figure 1). On the one hand, female students, *ceteris paribus*, appeared to display greater inclination toward Approach to Teaching than male students. On the other hand, females appeared significantly less interested than males in Communication and Feedback.

Table 3: Univariate *F* statistic and observed means of significantly affected students' views and expectations variables (*df = 1, 595*) with Sex as the grouping variable

Statistic	Significantly affected dependent variable	
	Approach to Teaching	Communication and Feedback
Mean square	14.15	12.36
F-statistic	16.959	13.625
p-value	< .0001	< .0001
Group mean		
Male	-.15	.15
Female	.15	-.13

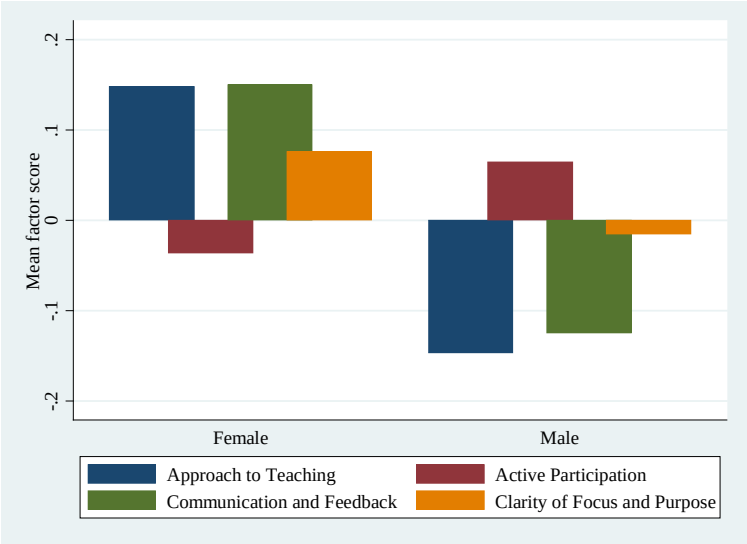

Figure 1: Students' views and expectations variables differing significantly between male and female: Approach to Teaching, and Communication and Feedback.

Ethnicity: Two of the four dependent variables (Approach to Teaching, Active Participation) differed according to Ethnicity (Table 4 and Figure 2). Students with a non-English language as their mother tongue (NESB) appeared significantly less inclined toward Approach to Teaching than those with English as their mother tongue (ESB) (Table 4and Figure 2). However, the NESB students appeared to display greater interest in Active Participation in the teaching and learning process than the ESB students (Table 4 and Figure 2). Note that differences between ethnic groups on Clarity of Focus and Purpose did not reach statistical significance of $p < .01$.

Table 4: Univariate *F* statistic and observed means significantly affected students' views and expectations variables ($df = 1, 595$) with Ethnicity as the grouping variable.

Statistic	Significantly affected dependent variable	
	Approach to Teaching	Active Participation
Mean square	9.84	17.50
F-statistic	11.788	18.113
p-value	< .001	< .0001
Group mean		
English-speaking	.14	-.15
Non-English-speaking	-.24	.28

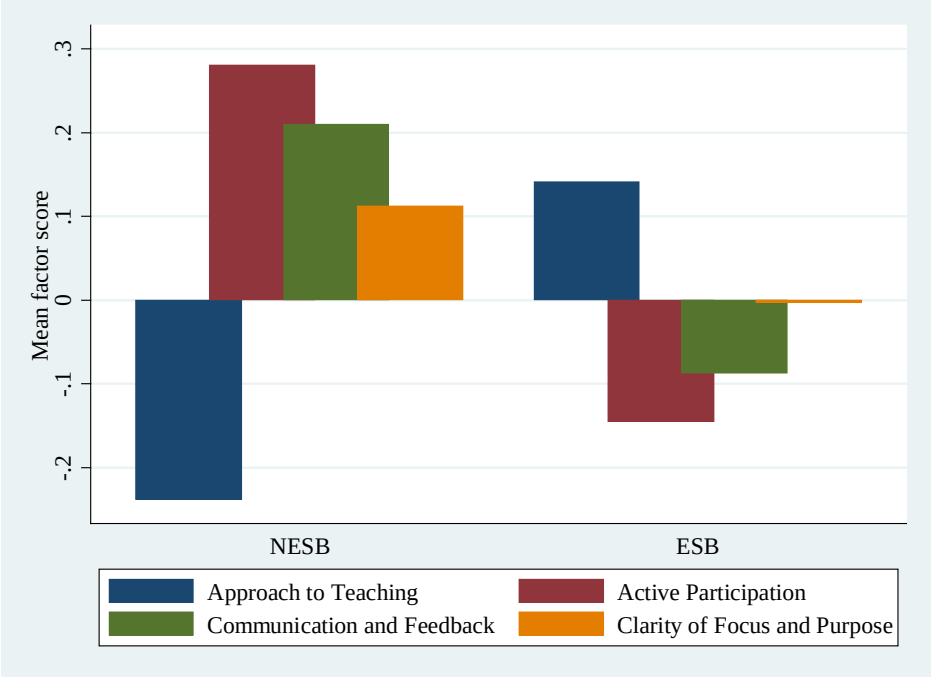

Figure 2: Students' views and expectations variables differing significantly according to Ethnicity: Approach to Teaching, and Active Participation

Study Discipline: Only Approach to Teaching appeared to differ among students' study disciplines (Table 5 and Figure 3), Multiple comparisons based on post hoc tests revealed that students in the group Single and non-economics double majors outside the Faculty of Business, Economics and Law (BEL) appeared to be significantly more inclined toward Approach to Teaching in their views and expectations about teaching and learning than those in non-Economics single or double majors within BEL, $p < .003$. Students in Single or double majors in science disciplines, $p < .001$, appeared more likely to be interested in Approach to Teaching than those in non-Economics single or double majors within BEL, $p < .001$.

Table 5: Univariate *F* statistic and observed means of significantly affected students' views and expectations variables (*df = 5, 595*) with Study Discipline as the grouping variable.

Statistic	Significantly affected dependent variable
	Approach to Teaching
Mean square	2.913
F-statistic	3.491
p-value	< .004
Group mean	
Economics single or double majors outside the Faculty of Business Economics and Law (BEL) (Discipline 1)	.12
Economics double major within BEL (Discipline 2)	.04
Single and non-economics double majors within BEL (Discipline 3)	-.24
Single or double majors in arts or social sciences (Discipline 4)	.12
Single or double majors in science disciplines (Discipline 5)	.35
Single or double majors in any other disciplines not included elsewhere (Discipline 6).	.24

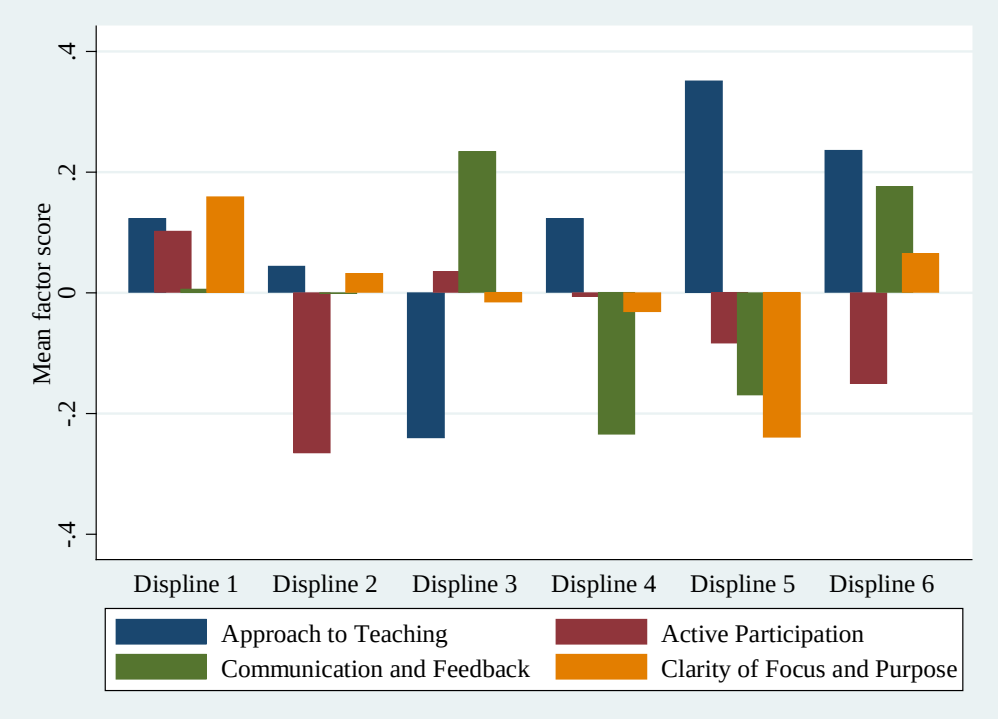

Figure 3: Students' views and expectations variable differing significantly according to Study Discipline: Approach to Teaching

Level of Study: Only Communication and Feedback achieved statistical significance (*p*<.001) (Table 6 and Figure 4). Multiple comparisons from post hoc tests revealed that Communication and Feedback differed significantly among groups in Level of study. Multiple comparison based on post hoc results, suggested that mean score for this variable

was significantly higher for Honours and postgraduates than for the lower undergraduates ($p < .004$) and upper undergraduates ($p < .004$). Thus, Communication and Feedback appeared to vary directly with Level of Study.

Table 6: Univariate F statistic and observed means of significantly affected students' views expectations variables ($df = 2, 595$) with Study Level as the grouping variable

Statistic	Significantly affected dependent variable
	Communication and Feedback
Mean square	6.72
F-statistic	7.401
p-value	< .001
Group mean	
First and second year (lower undergraduate, Level 1)	-.06
Third year(upper undergraduate, Level 2)	.03
Honours and postgraduate (Level 3)	.28

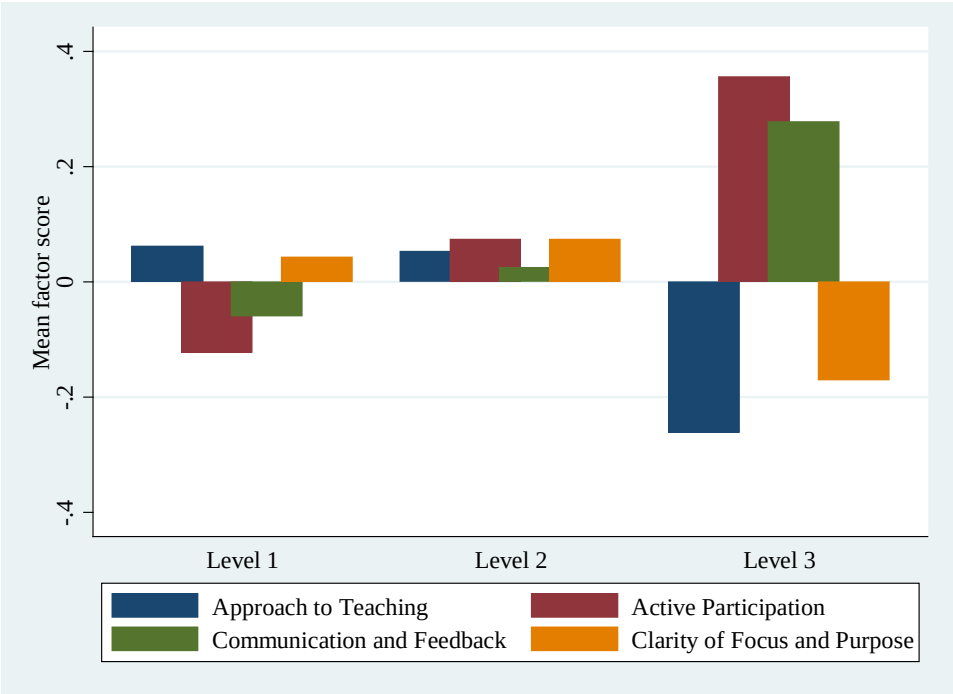

Figure 4: Students' views and expectations variable differing significantly according to Study Level: Communication and Feedback

Age: Univariate tests did not reveal any significant age group differences on students' views and expectations in higher education.

Sex and Ethnicity Effects

This section reports data exploring the interaction effects of Sex and Ethnicity. This is achieved by breaking down the data first by Sex and then by Ethnicity. The former examines sex-specific effects on the remaining independent variables such as ethnicity, student performance and so on. For example, do ESB males differ from NESB males about any of the dependent variables reflecting students' views and expectations? The latter investigates ethnicity-specific effect on the remaining grouping variables.

Data split by sex

Multivariate test results[1](not presented for brevity) suggested that one or more dependent variables defining female students' views and expectations differed according to: (a) Ethnicity, F (4, 301) = 9.895; p< .0001; and (b) Age, F (8, 602) = 3.224, p< .001. Male students differed in their views and expectations due to variations in Ethnicity, F (4, 276) = 3.720; p< .006. Thus, ethnic differences represented the only grouping variable significantly affecting one or all of the four dependent variables common to both males and females.

Results of univariate tests (not presented in separate tables for brevity) revealed that, for female students, differences in**:**

(a) Ethnicity affected two dependent variables: Approach to Teaching, and Active Participation; and
(b) Age affected only Approach to Teaching.

Results based on multiple comparisons of post hoc tests and pair-wise comparisons (Tables not presented for brevity) suggested that ESB females were significantly more inclined toward Approach to Teaching than NESB females (p< .0001). NESB females were significantly more likely to prefer Active Participation than ESB females (p< .0001). Female students aged ≤ 20 years were significantly more inclined toward Approach to Teaching than females in the 20–25 years age group (p< .008).

For male students, differences in Ethnicity affected Communication and Feedback, F (1, 279 = 8.984; p< .003. Pairwsie comparisons suggested that NESB males were significantly more inclined toward Communication and Feedback than ESB males (p< .003).

[1]Levene's test of equality of error variances was not significant for females or males for any of the four dependent variables (Approach to Teaching, Active Participation, Communication and Feedback, and Clarity of Focus and Purpose).

Data split by ethnicity

Multivariate tests on data split by ethnicity[2] (not presented here) suggested that students' views and expectations of ESB students differed significantly due to differences in: (a) Sex, F (4, 379) = 11.371; p< .0001; and (b) Age, F (8, 758) = 3.043, p< .002.

Univariate test (tables not presented for brevity) suggested that for ESB students, differences in age groups for any of the dependent variables were not statistically significant at p < .01. The same picture emerged for Sex. Therefore, no further results are presented.

DISCUSSION AND CONCLUSION

The preceding discussion suggests that students' perceptions regarding their views and expectations in higher education can be categorised into a few dimensions or factors. Based on the data employed in this study, four factors reflected students' views and expectations. The items underpinning each factor appeared to be internally consistent while at the same time being linearly independent. The latent variables underlying each factor seemed to reflect students' interest in:

(a) a teaching approach that provides intellectual stimulation and challenge, a good balance in the mix of theory and applications, an enhanced understanding of the relevant discipline;

(b) active participation in the teaching and learning process including group learning sessions, opportunity to ask questions, and the practicality of the course content in terms of its real world applications;

(c) promptness of communication and feedback on written work to improve students' learning skills; and

(d) centrality of focus on, and purpose of, each topic and the overall course, applications of methods and techniques, critical analysis, and links among various learning objectives of the course.

[2]Levene's test of equality of error variances was not significant for either ethnic groups for any of the four dependent variables (Approach to Teaching, Active Participation, Communication and Feedback, and Clarity of Focus and Purpose).for any of the Deep learning, Expediency, and Responsibility.

Students' sex, ethnicity, study discipline, level of study, and age appeared to determine concomitant changes in the four dependent variables reflecting students' expectations. Note that variations based on academic performance were not found.

Significant variations in the nature and direction of the effects of these variables exist. Several patterns emerged that highlighted the diversity of student views and expectations embedded in the heterogeneity of the student population, which themselves are differentiated by several attributes reflected by the grouping variables.

A significant implication of the findings of this paper is the challenge for teaching staff to manage expectations of diverse group of students with differing views and expectations with the most common thread being the emphasis on demonstrating the relevance of methods and techniques to real world issues. Abstract theorisation with demonstrable relevance to real world applications is likely to disenfranchise and disengage a significant proportion of the students. Other critical elements in managing student expectations include, amongst other things, promptness in communication and feedback, demonstrating ability to impart the central message canvassed in the course or in a topic within a course, or creating a teaching and learning environment in which students can actively participate. Where possible, opportunities for group learning should be encouraged.

REFERENCES

Akerloff, G. (1970). The market for lemons: Quality uncertainty and the market mechanism. *Quarterly Journal of Economics, 84*, 488-500.

Alauddin, M. &Tisdell, C.A. (2000).Changing academic environment and teaching of economics at the university-level: Some critical issues analysed with the help of microeconomics. *Economic Papers, 19*, 1-17.

Baldwin, G. & James, R. (2000). The market for higher education and the concept of student as informed customer. *Journal of Higher Education Policy & Management, 22,* 139-148.

Barr, R.B. &Tagg, J. (1995). Teaching to learning: a new paradigm for undergraduate education. *Change, 27*, 12-25.

Biggs, J. (1987). *Student Approaches to Learning and Studying*. Melbourne: Australian Council for Educational Research.

Biggs, J. Kember, D. & Leung, D.Y.P. (2001). The revised two factor Study Process Questionnaire: R-SPQ-2F. *British Journal of Educational Psychology, 71,* 133-149.

Biggs, J. & Tang, C. (2007). Teaching for Quality Learning at University. Buckingham, U.K. & Philadelphia, Pa.: Society for Research into Higher Education & Open University Press (Third Edition).

Booth, A. (1997). Listening to students: Experiences and expectations in the transition to a history degree, *Studies in Higher Education, 22*, 205-220.

Boulding, W., Kalra, A., Staelin, R. & Zeithaml, V.A. (1993). A dynamic process model for service quality: From expectations to behavioural intentions. *Journal of Marketing Research, 30*, 7-27.

Brace, N., Kemp, R. & Snelgar, R. (2009). *SPSS for Psychologists*. London: Palgrave Macmillan.

Brennan, L. & Bennington. (1999). Concepts in conflict: Students and customers – An Australian perspective. *Journal of Marketing for Higher Education, 9*, 19-40.

Delucchi, M. &Korgen, K. (2002). We're the customer – we pay the tuition: Student consumerism among undergraduate sociology majors. *Teaching Sociology, 30,* 100-107.

Denson, N. and Zhang, S. (2010). The impact of student experiences with diversity on developing graduate attributes, *Studies in Higher Education, 35,* 529-543.

Field, A. (2005). *Discovering Statistics Using SPSS*. London: Sage.

Furedi, F. (2002). 'The Bureaucratization of the British University', in Hayes, D. and Wynyard, R. (Eds.) *The McDonaldization of Higher Education* (pp.33-42). Westport, CT. and London: Bergin and Garvey.

Gordon, S., Reid, A. & Petocz, P. (2000). Educators' conceptions of student diversity in their classes. *Studies in Higher Education*, 3**5**, 961-974.

Gruber, T., Repepel, A. & Voss, R. (2010). Understanding the characteristics of effective professor: the student's perspective. *Journal of Marketing for Higher Education, 20,* 175-190.

Hill, F.M. (1995). Managing service quality in higher education: the role of student as primary consumer. *Quality Assurance in Education*, 3, 10-21.

James, D. (2001). Why students can't be customers in the classroom. *CU: A Journal of the American Association of Collegiate Registrars and Admission Officers*, 77, 45-46.

Johnson, R. & Kumar, M. (2010). The Monsoon Wedding phenomenon: understanding Indian students studying in Australian universities. *Higher Education Research & Development, 29*, 215-227.

Kember, D. & Leung, D.Y.P. (1998). The dimensionality approaches to learning: an investigation with confirmatory factor analysis on the structure of the SPQ and LPQ. *British Journal of Educational Psychology*, 68, 395-407.

Kember, D., Biggs, J. & Leung, D. Y. P. (2004). Examining the multidimensionality of approaches to learning through the development of a revised version of the Learning Process Questionnaire. *British Journal of Educational Psychology*, *74*, 261-280.

Kreber, C. (2010). Academic teacher identity, authenticity and pedagogy. *Studies in Higher Education, 35*, 171-194.

Kwek, C.L, Lau, T.C. & Tan, H.P. (2010). Education quality process model and its influence on students' perceived service quality. *International Journal of Business and Management, 8*, 154-165.

Levine, A. (1993). Student expectations of college. *Change*, *25*, 4.

Mason, P.M., Steagall, J.W. & Fabritius, M.M. (1995). Student evaluations of faculty: A new procedure for using aggregate measures of performance. *Economics of Education Review*, *14*(4), 403-416.

Mason, P.M., Steagall, J.W. &Fabritius, M.M. (2003). The quality of business education. *Economics of Education Review*,*22*, 603-609.

Moore, M.L., Moore, R.S. & McDonald, R. (2008). Student characteristics and expectations of university classes: A free elicitation approach. *College Student Journal*, *42*, 82-89.

Plater, W.M. (1995). Future work: Faculty time in the 21st century. *Change*, *27* (5), 23-33.

Sander, P., Stevenosn, K., King, M. & Coates, D. (2000).University students' expectations of teaching. *Studies in Higher Education*, **25**, 311-323.

Shank, M.D., Walker, M. & Hayes, T.J. (1995).Understanding professional service expectations; do we know what our students expect in a quality education? *Journal of Professional Services Marketing, 13*, 71-89.

Shank, M.D., Walker, M. & Hayes, T.J. (1996). Understanding the characteristics of effective professor: the student's perspective. *Journal of Marketing for Higher Education, 7*, 17-32.

Sharrock, G. (2000). Why students are not (just) customers (and other reflections on *Life After George*). *Journal of Higher Education Policy & Management, 22*, 149-164.

Smart, B. (2002). Accounting for anxiety: Economic and cultural imperatives transforming university life. In Hayes, D. & Wynyard, R. (Eds.) *The McDonaldization of Higher Education* (pp.43-56). Westport, CT. and London: Bergin and Garvey.

Stevens, J. (2002). *Applied Multivariate Statistics for the Social Sciences.* Mahwah, N.J.: Lawrence Erlbaum Associates ((4th Edition).

Tabachnick, B.G. & Fidell, L.S. (2007). *Using Multivariate Statistics*. Boston: Allyn & Bacon.

Twale, D.J., Shannon, D.M. & Moore, M.S. (1997). NGTA and IGTA Training and Experience: Comparisons between self-ratings and undergraduate student evaluations. *Innovative Higher Education, 22*, 61-77.

UQ (2004).*The University of Queensland, Student Experience Survey 2003*, Brisbane: The University of Queensland.

Vardi, I. (2011). The changing relationship between the Scholarship of Teaching and Learning and universities. *Higher Education Research & Development, 30*, 1-7.

White, N.R. (2007). 'The customer is always right?': Student discourse about higher education in Australia. *Higher Education, 54*, 593-604.

Zeithaml, V., Parasuraman, A. & Berry, L. (1990). *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. New York: Free Press.