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The Influence of Fairness on University Student Satisfaction

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Abstract: Some researchers have argued that a better understanding of fairness would add to our evaluation of learning environments (Lizzio, Wilson & Hadaway, 2007) and their impact on students (Nesbit & Burton, 2006), but there have been few studies that explicitly examine perception of fairness as a driver of satisfaction with learning environments. This study examined the influence of perceptions of fairness on student satisfaction with a subject, the competence of lecturers, and the university. Students (n=396) from education, arts, management, health and science faculties in one Australian university completed a survey that measured perceptions of fairness and service quality. Exploratory factor analysis was used to identify distinct factor concepts. Regression was used to explore the influence of five service quality factors (Reliable, Assurances, Responsiveness, Tangibility, Empathy), adapted from SERVQUAL (Parasuraman, Zeithaml, & Berry, 1988), and two fairness factors (Respectful Partnership, Systemic fairness), adapted from FLEQ (Lizzio et al., 2007), on student feelings of satisfaction with the subject, lecturers, and the university as a whole. The two fairness factors were found to be distinct from the service quality factors. 'Respectful partnership' significantly and positively influenced all the satisfaction levels and was the strongest influence on subject satisfaction. This finding is important because it shows that an understanding of fairness offers a more complete understanding of the student experience. Some aspects of the learning environment that are evidently highly valued by students, such as voice in decisions about learning and the quality of the relationship with the lecturer, may not presently be captured by instruments used to evaluate learning environments. The paper suggests that fairness dimensions be further explored, and integrated in design and evaluation of the student experience.

Keywords: Student Satisfaction, University, Subject, Course, Lecturer, Teacher, Fairness, Justice, Interactional, Procedural, Partnership, Respectful, Servqual, Systemic, Regression

INTRODUCTION

Student satisfaction is important to lecturers, departments and universities, and perceptions of service quality and feelings of satisfaction are widely used to evaluate learning environments (Brochado, 2009). Some researchers have argued that a better understanding of fairness would add to our evaluation of learning environments (Lizzio et al., 2007) and their impact on students (Nesbit & Burton, 2006), but there have been few studies that explicitly link student satisfaction with perceptions of fairness.

Perceptions of fairness generally lead to positive attitudes and behaviours, while perceptions of unfairness have been shown to lead to negative attitudes and outcomes in numerous contexts including tertiary education settings (Nesbit & Burton, 2006; Chory-Assad & Paulsel, 2004). Organisational justice scholars are generally agreed that the perception of fairness and resulting reactions are influenced by processes (procedural fairness) and interpersonal treatment by de-

cision-makers (interactional fairness), as well as the decision or outcome (distributive fairness) (Fortin, 2008). Some studies that have shown that these fairness concepts are as important in educational settings as they are in workplaces. For example, Lizzio et al. (2007) found that interactional fairness and procedural fairness concerns both predicted student identification, a sense of belonging associated with prosocial and cooperative behaviours (Lizzio et al., 2007). Chory (2007) emphasised the importance of sound, caring interpersonal relationships between lecturers and students for enhancing the distributive, procedural and interactional fairness in the classroom that increase positive outcomes and reduce negative reactions.

One of the authors of this study informally asked a class of 35 second year university communication students to write down what they do and do not like about subjects. Just three comments focused on distributive concerns that Finkel (2001) has called 'commonsense unfairness', such as working too hard for low grades, or lazy students getting high grades. Most of the comments focused on procedural and interactional concerns such as: 'when the lecturer doesn't listen'; 'the lecturer is arrogant'; 'the lecturer never smiles'; 'the lecturer never asks for ideas'; 'the lecturer has obvious class favourites'; and 'the lecturer awarded whole class extensions at the last moment, after I had completed my assignment'.

An important aim of this study is to explore a gap in the literature concerning the influence of fairness on student attitudes to their learning environment. Are fairness concepts distinct from concepts commonly used in the measurement of education service quality? If so, what is the relative influence of fairness in determining student attitudes and satisfaction with their learning environment?

The study uses *SERVQUAL* (Parasuraman, et al., 1988) to measure student perceptions of service quality, and Lizzio et al.'s (2007) *Fair Learning Environment Questionnaire (FLEQ)* to measure student perceptions of fairness. *SERVQUAL* is a measure of service quality with 5 sub-scales (*Tangibility, Reliability, Responsiveness, Assurances, Empathy*) (Parasuraman, et al., 1988). It originated in the marketing field but has been widely applied and adapted for use in the education sector internationally (Brochado, 2009). *FLEQ* was developed in Australia to measure student perceptions of the fairness of learning environments and has had some international use (Ozer & Demirtas, 2010). It comprises two sub-scales, *Respectful partnership and Systemic fairness*. Regression is used to analyse the relative influence of the factors on student feelings of satisfaction with a subject, the competence of lecturers, and the University as a whole.

Literature Review

Service Quality and Satisfaction in Learning Environments

In their attempts to achieve high numbers of enrolments and manage tertiary education, universities have become very interested in measuring student perceptions of various aspects of the university experience and learning environment. Service quality and satisfaction measures are widely used in evaluation of the tertiary education sector (Brochado, 2009), but measuring overall satisfaction with a university can be complicated by students considering multiple factors, including experiences in class and other aspects of campus life (Elliot & Shin, 2002). Students may express dissatisfaction because they are unhappy at an institutional level, and through no fault of the service provided in the classroom environment (Wiers-Jenssen, Stensaker, & Groggaard, 2002). DeShields, Kara, & Kaynak (2005) argued that it is important to identify the key drivers of satisfaction for multiple areas, from the learning components inside the classroom, the social development and life on campus, and the institute in terms of its processes and policies, size and facilities.

Brochado (2009) reviewed five leading instruments used to measure service quality in the higher education sector internationally-Service Quality (*SERVQUAL*) and importance-weighted *SERVQUAL*, Service Performance (*SERVPERF*) and importance-weighted *SERVPERF*, and

Higher Education Performance (HEDPERF)—and found that they provide good measurement capabilities across service quality; non-academic; academic; reputation; access; and program issues. Gibson (2010) reviewed several satisfaction studies that were focused on identifying the significant drivers. He concluded that the most commonly significant satisfaction drivers are the academic program and teaching quality, focus on student career goals, and facilities such as IT. Gibson (2010) also noted that dissatisfaction drivers were often non-academic, in particular the lack of student centred focus from the university, suggesting that students want to be the centre of attention, and feel dissatisfaction if the university does not cater for their needs first.

Studies tend to report that perceived teaching quality is the main predictor of subject satisfaction. At one Australian university, Denson, Loveday & Dalton (2010) found that student characteristics, reason for enrolling and teaching-related factors were significant predictors of overall satisfaction, but the strongest predictors of subject satisfaction were teaching-related factors (clarity of aims, feedback, student participation, assessment and thinking development). A British study examined subject grades received, course difficulty and teaching as predictors of student subject evaluations, and reported that ‘by far the largest determinant of student evaluation of courses is the quality of the teaching’ (Remedios & Lieberman, 2008, p91). Another study of satisfaction in online courses found that teaching staff could influence student satisfaction by clearly stating expectations, making themselves readily available at quick notice, and by showing enthusiasm (Jackson, Jones & Rodriguez, 2010).

Studies from the field of organisational justice have reported that perceptions of fairness are central to people’s evaluation of situations generally (Tyler & Blader, 2003) and a range of cognitions including satisfaction (Van den Bos, 2005). Researchers have reported positive relationships between organisational justice dimensions and job satisfaction (Whisenant & Smucker, 2009; Diekmann, Barsness & Sondak, 2004), and also customer satisfaction (Martinez-Tur, Peir, Ramos & Moliner, 2006). Many university evaluation instruments measure satisfaction, and include an item or two about perception of fair treatment or fair assessment, but education studies have not made explicit and deliberate connections between perceptions of fairness and student satisfaction.

Fairness in University Learning Environments

The ‘fair process effect’ says that people react more positively when they perceive that they have experienced fair treatment, and more negatively when they perceive they have experienced unfair treatment (Van den Bos, Burrows, Unphress, Folger, Lavelle, Eaglestone & Gee, 2005). Perception of unfairness in learning environments has been shown to contribute to a range of undesirable outcomes such as higher levels of aggression toward instructors (Chory-Assad, 2002), revenge and resistance to instructor requests through deception (Chory-Assad & Paulsel, 2004), lower ratings of lecturers and courses (Nesbit & Burton, 2006) and lower motivation to learn (Chory-Assad & Paulsel, 2004). Some researchers have made strident calls for more research into the role of justice and fairness in the tertiary education context. Lizzio et al. (2007) have argued that a ‘more explicit focus on questions of justice may enhance evaluations of the learning environment’ (p210). Others have said that an understanding of students’ perceptions of classroom fairness ‘is necessary for effective teaching’ (Gordon & Fay, 2010, p96).

Commonsense understanding of fairness and unfairness focuses mainly on equal and equitable distribution of resources and rewards (Finkel, 2001), but ‘being treated fairly goes further than simply receiving a fair outcome. It is often how (in terms of process and interpersonal style) the outcome is received rather than what is received that seems to matter’ (McColl-Kennedy & Sparks 2003, p253). Organisational justice scholars generally agree that the perception of fairness is influenced simultaneously by perception of a decision or distribution (distributive fairness), characteristics of the processes used to make a decision, such as voice, transparency

and impartiality (procedural fairness), and the perception of respectful and caring interpersonal treatment from decision-makers (interactional fairness) (Fortin, 2008). For example, allowing people to have a say in decisions that affect them tends to result in perceptions of greater fairness (the ‘voice effect’). Sometimes, simply having a say, even where it is known that one won’t influence decisions, increases the perception of fairness (Shapiro & Brett, 2005).

Research has found that teaching quality is central to student satisfaction, and that clear expectations, feedback and availability are teaching dimensions valued by students (Jackson, Jones & Rodriguez, 2010; Denson, Loveday & Dalton, 2010). Some other work has focused explicitly on the link between the quality of the teacher-student relationships and perception of fairness. Chory (2007) examined student perceptions of instructor credibility and feelings of distributive, procedural and interactional fairness. She emphasised the importance of lecturers developing trusting interpersonal relationships to raise perceptions of fairness and reduce negative student responses and behaviours, and the role of communication style. ‘Perhaps it is the interpersonal nature of the caring instructor’s communication that drives the relationship between credibility and the three dimensions of classroom justice’ (p100). Teven and McCroskey (1996) also reported that it is important for teachers to be perceived to care for students. Their study of university students found that student perceptions of lecturer caring were positively associated with affective learning, perceptions of their own learning and evaluation of their teachers.

Lizzio et al. (2007) found that the nature of the teacher/student relationship is important to student perceptions of fairness. They explored the links between students’ psychological identification with their academic department and their perceptions of fairness. They developed the *Fair Learning Environment Questionnaire (FLEQ)* comprising two justice factors, *Respectful partnership* between staff and students, and *Systemic fairness* of information and problem-solving processes. Each factor blends procedural justice principles, such as consistency, clarity, voice, provision of help and avenue for complaint when problems arise (Leventhal, 1980) with interactional justice concerns such as demonstration of care and respectfulness (Bies & Moag 1986). Lizzio et al. (2007) said that the *Respectful partnership* factor ‘focused on the quality of the interpersonal treatment that students received’ (p201), ‘consistent and fair procedures and a mode of staff-student relating that participatively engages them in the life and governance of the school’ (p203). They argued that this concept captures a relational dimension that implies a partnership (Lizzio et al., 2007). The *Systemic fairness* factor concerns students’ perceptions of transparency in the communication of requirements and process, ease of access to help, and confidence in the staff and system to ‘provide a safe climate for appealing or remediating problems’ (p203). According to Lizzio et al. (2007), *Respectful partnership* emphasises a ‘partnership-based relationship between staff and students’ while *Systemic fairness* ‘may be construed more in terms of a provider-customer frame of reference’ (p203).

Lizzio et al.’s (2007) study of student perceptions of a fair learning environment was based on a sample from a single academic department in a single learning environment. They recommended future studies examine cross-departmental and cross-disciplinary samples. Using Lizzio et al.’s (2007) *FLEQ* scale, this study sought to examine the previously unexamined influence of fairness on student satisfaction with a sample of students from several departments and disciplines across a range of campuses. To aid understanding of the relative importance of fairness perceptions as a factor in feelings of satisfaction, it also measured student perceptions of service quality using *SERVQUAL* (Parasuraman, et al., 1988).

Research Objective

The main research objective for this study was exploratory. Does the perception of fairness influence students’ feelings of satisfaction?

Method

Procedure

The study was conducted at an Australian University in August 2011. To reach both face-to-face and distance students, the data were collected using a combination of a self-reported online questionnaire and face to face data collection methods. Online data collection has grown in popularity and effectiveness, it is easy for participants to use and can provide rich stimulus material (Deal, 2005; Evans & Mathur, 2005; Wilson & Laskey, 2003). Online surveys can reduce response errors by requiring responses before the participant can continue (Boyer, Olson, Calantone, & Jackson, 2002). The online version of the survey had the potential to reach to all students enrolled in the University. For face-to-face students the survey was handed out in a compulsory class, and those who did not attend class were approached later to undertake the questionnaire. To incentivize participation, participants were invited to enter a draw to win a \$50 dollar voucher.

Measures

The scales were separated in the questionnaire and within scales items were mixed (to avoid common method bias). Respondents were prompted to ‘think of the University as a whole’ before completing the *SERVQUAL* scale, and ‘think of a subject you have recently completed’ before completing the *FLEQ* scale. This approach was intended to allow students from multiple subjects, disciplines and faculties to complete the same survey, and for students to focus on a subject that was salient to them. No further information about the subject, lecturer or nature of salience was gathered. Consequently the salience may have been positive, negative or based on some other characteristic determined by the student. Data gathered about respondents included age, income gender, year at university and mode of study (face to face [internal] or distance education).

Lizzio et al.’s (2007) *Fair Learning Environment Questionnaire (FLEQ)* was adapted (see Table 1) to measure student perceptions of fairness. *FLEQ* measures two dimensions of fairness known as *Respectful Partnership*, covering equal treatment, interactional justice concerns such as listening, and concern for student rights, and *Systemic fairness*, emphasising accessibility of information and problem-solving processes (Lizzio et al., 2007). Respondents rated 13 *respectful partnership items* and 6 *Systemic fairness items* on the same 7 point ‘strongly disagree’ to ‘strongly agree’ scale used by Lizzio et al. (2007).

The study used *SERVQUAL* (Parasuraman et al., 1988) (see Table 1), an instrument that has been used widely in education settings to measure student perceptions of service equality. *SERVQUAL* comprises five factors pertaining to; *Tangibility (4 items)*, the appearance and quality of physical facilities and equipment; *Reliability (5 items)*, the extent to which the lecturer gives service that is dependable and accurate; *Responsiveness (4 items)*, the promptness and willingness of the lecturer to help; *Assurances (4 items)*, level of confidence and trust in the lecturer; and *Empathy (5 items)*, the availability and attentiveness of the lecturer to individual students (from Brochado, 2009). Respondents rated the 22 *SERVQUAL* items on a 5 point scale from (1) ‘strongly disagree’ to (5) ‘strongly agree’.

Three global measures of the dependent variables were obtained. Students were asked to rate their satisfaction with ‘The subject you recently completed as a whole’, ‘The University as a whole’ and ‘The competence of lecturers to do the job’, on a five point scale from (1) ‘very dissatisfied’ to (5) ‘very satisfied’. Denson, Loveday and Dalton (2010) said that it is the ‘overall satisfaction’ question that receives the most attention on subject evaluation forms. Jordan and Turner (2008) contend that while multiple-item scales are generally preferred as measures of complex psychological constructs, recent evidence indicates that in addition to the

practical benefits of shorter survey time and length, single-items can have psychometric benefits. Single-items can sometimes be more efficacious measures of global constructs such as satisfaction, and can be more readily applied to different populations (Jordan & Turner, 2008).

Analysis

Two main methods were used to understand the effects of service quality and fairness; exploratory factor analysis and regression analysis. Exploratory factor analysis was used to identify the dimensions among *SERVQUAL* and *FLEQ*. Regression analysis was used to test and compare the effects of each of the dimensions (factors) on student satisfaction. Specifically, ordinal logit regression was used. An ordered logit model gives the effects on an independent variable on dependent variable categories (DeMaris, 1995; Hair et al., 2010). As the dependent variable was ordered rather than categorical or qualitative, the ordered logit was preferred to the multinomial logit model (Hair et al., 2010). The factor scores for each independent variable were used as the independent variables. Thus the three ordinal logit models were estimated, one for each of the three independent variables, which are briefly reported below.

Sample

There were initially 450 respondents, with 396 in final sample. Item non response and incompleteness were the main reasons for removal. The sample was mainly female (73%), and mainly first or second year (61%). Just under half (48%) were 21 years of age or less and most (70%) of the respondents were face-to-face students. A large majority (83%) are paying by the Australian deferred payment Higher Education Contribution System (HECS). Participants were drawn from a range of courses in Arts, Education, Business and Science.

Results

As expected a seven factor model was produced, however there were some unanticipated issues. The Kaiser-Meyer-Olkin measure of sampling was 0.924, with a significant Bartlett's sphericity, with seven eigenvalues above one, and 65.85% of the variance explained. A number of the *FLEQ* items loaded onto incorrect factors and were subsequently removed. In addition to this two of the *SERVQUAL* items also loaded onto the incorrect factor and were removed. There were also some issues of cross loading which can be seen in Table 1. Cronbach alphas were also used to determine scale reliability, with all approaching the acceptable levels set out by Hair et al. (2010).

The exploratory factor analysis shows that *SERVQUAL* and *FLEQ* measure different concepts. Moreover, the seven factors can be used in further analysis (in this case ordinal regression). Thus, the first finding is that the two multidimensional constructs being *SERVQUAL* and *FLEQ* are in fact measuring different things.

Table 1: Exploratory Factor Analysis Results *SERVQUAL* and *FLEQ*

	1	2	3	4	5	6	7
Students' views are considered when decisions are made	.875						
Students' views are considered when decisions are made	.853						
Students' needs are considered when decisions are made	.846						
Staff in this subject care about students' opinions	.812						
Staff show concern for students' rights	.796						
Staff members ask students for their ideas on how things could be improved	.790						
Staff apologise if they make mistakes	.779						
Staff apologise if they inconvenience students	.728						
Rules and procedures are applied fairly to all students	.581						
The University provides its services at the time it promises to do so		.790					
The University is dependable		.759					
When the University promises to do something by a certain time it does so		.755					
When you have problems, the University is sympathetic		.625					
The University keeps its records accurately		.493					
The University does not tell its students exactly when its services will be performed		.464					
Lecturers get adequate support from the University to do their jobs well		.405					
You can feel safe in your transaction with the University lecturers			.806				
You can trust lecturers of the University			.789				
Lecturers of the University are polite			.729				
The University does not give individual attention				.802			
Lecturers of the University do not give personal attention				.764			
Lecturers of the University do not know what your needs are				.527			
The University does not have your best interests at heart				.415			
The appearance of the physical facilities is in line with the type of service provided					.823		

The University's physical facilities are visually appealing					.782		
The University has up-to-date equipment					.590		
The University's lecturers are well dressed and appear neat					.486		
You do not receive prompt service from the University lecturers					.772		
Lecturers of the University are not always willing to help students					.729		
Lecturers of the University are too busy to respond to student requests promptly					.616		
There is no point complaining about things around here because nothing real would be done							.819
It's not made clear what a student should do when they have issues							.811
Mean	4.895	3.281	3.897	2.529	3.527	3.29	3.36
Cronbach alpha	0.949	0.808	0.883	0.757	0.73	0.846	0.539
Key: 1= Respectful partnership, 2= Reliability, 3= Assurances, 4= Empathy, 5= Tangibility, 6= Responsiveness, 7= Systemic fairness							

The next step of the analysis was to estimate regression models for each of the three dependent variables using the factors developed in the factor analysis. Each of the three models estimated was statistically good, with a significant Pearsons' and -2 Log likelihood (0.001). The goodness of fit, tested through Chi-square was also significant, suggesting a reasonable fit given the size of the data set. For each of the models an insignificant test of parallel lines was found, indicating that the ordinal logit model is appropriate. In each of the three models estimated the threshold variables were found to be significant (0.001), indicating their appropriate use as dependent variables.

Table 2: Ordered Logit Model Results for Subject Satisfaction, University Satisfaction and Lecturer Satisfaction

		Subject	University	Lecturers
Threshold	Very dissatisfied	-3.962	-5.320	-5.902
	Dissatisfied	-2.409	-2.946	-3.350
	Neither satisfied nor dissatisfied	-1.196	-1.257	-1.777
	Satisfied	1.809	2.754	1.553
Location	Reliable	0.257**	1.342***	0.247**
	Assurances	0.232**	0.437***	1.077***
	Responsiveness	0.195*	0.463***	0.423***
	Tangibility	0.041	0.621***	-0.007
	Empathy	0.510***	0.756***	0.731***
	Respectful partnership	1.060***	0.251**	0.615***
	Systemic fairness	0.137	-0.084	0.230**

Key: * = 0.100, ** = 0.05, *** = 0.01

Satisfaction with the Subject was significantly influenced by *Reliable*, *Assurances*, *Empathy* and *Respectful partnership*. While *Responsiveness* showed minimal significance (10%), *Tangibility* and *Systemic fairness* were insignificant. Satisfaction with the University was significantly influenced by all of the independent variables, except *Systemic fairness*. Satisfaction with Lecturers was not significantly influenced by *Tangibility*, but all of the other six variables did have a significant relationship.

The direction of each of the weights was as expected. Negative influence was recorded for 'very dissatisfied', 'dissatisfied' and 'neither satisfied nor dissatisfied' for each of the three dependent variables. 'Satisfied' was positive for each of the three dependent variables. Very satisfied was the variable dropped to run the models in each case. There are two negative beta weights, one for *Systemic fairness* on the subject and one for *Tangibility* on the lecturer, but neither was significant.

The three models indicated that no single independent variable was the primary factor. For Satisfaction with the Subject, *Respectful partnership* had the largest influence, followed by *Empathy*, which had nearly twice the influence of *Reliable* and *Assurances*. For Satisfaction with the University, *Reliable* had the greatest influence, followed by *Empathy*, then *Tangibility*, then *Responsiveness* and *Assurances* which were similar. For Satisfaction with the Lecturer's competence, *Assurances* had the largest effect followed by *Empathy* and *Respectful partnership*, then *Responsiveness*, and finally *Systemic fairness*.

It is also important to examine the marginal effects, which are nonlinear functions of the parameter estimates (outcomes) and the levels of the independent variables (Anderson & Newell, 2003). Essentially the marginal effects give the effect of each of the independent variables on each category of the dependent variable. The results of the marginal effects are included in Table 3. In general, the marginal effects should have the same significance as the full models. This appears to be true in this case. *Tangibility* and *Systemic fairness* are not significant in the Subject estimates. *Systemic fairness* is not significant in the University estimates and *Tangibility* is not significant in the Lecturer estimates. With regard to the amount of variance explained (Y), it appears that some of the satisfaction is explained in each of the three dependent variables. However, in general the amount explained by each of the estimates can be considered relatively low.

Table 3: Logit Model Marginal Effects Results

Satisfaction with Subject					
	Very dissatisfied	Dissatisfied	Neither	Satisfied	Very satisfied
Y	0.0187	0.0634	0.1498	0.6271	0.1409
Reliable	-0.0047**	-0.0147**	-0.0264**	0.0147*	0.0147*
Assurances	-0.0043**	-0.0133**	-0.0238**	0.0133*	0.0133*
Responsiveness	-0.0036*	-0.0112*	-0.0200*	0.0112	0.0112
Tangibility	-0.0008	-0.0024	-0.0042	0.0024	0.0024
Empathy	-0.0093***	-0.0292***	-0.0523***	0.0292***	0.0292**
Respectful Par'	-0.0194***	-0.0608***	-0.1088***	0.0608***	0.1282***
Systemic Fair'	-0.0025	-0.0078	-0.0140	0.0078	0.0078
Satisfaction with University					
	Very dissatisfied	Dissatisfied	Neither	Satisfied	Very satisfied
Y	0.0050	0.0451	0.1715	0.7142	0.0599
Reliable	-0.0065***	-0.0571***	-0.1677***	0.1558***	0.0755***
Assurances	-0.0021**	-0.0186***	-0.0546***	0.0507***	0.0246***
Responsiveness	-0.0022**	-0.0197***	-0.0579***	0.0537***	0.0261***
Tangibility	-0.0030***	-0.0264***	-0.0777***	0.0721***	0.0350***
Empathy	-0.0037***	-0.0322***	-0.0944***	0.0877***	0.0425***
Respectful Par'	-0.0012*	-0.0107**	-0.0314**	0.0291**	0.0141**
Systemic Fair'	0.0004	0.0036	-0.0105	-0.0098	0.0047
Satisfaction with Lecturers					
	Very dissatisfied	Dissatisfied	Neither	Satisfied	Very satisfied
Y	0.0027	0.0312	0.1108	0.6806	0.1747
Reliable	-0.0007	-0.0074**	-0.0024**	-0.0050	0.0356**
Assurances	-0.0029**	-0.0323***	-0.0989***	-0.0220	0.1553***
Responsiveness	-0.0012*	-0.0127***	-0.0385***	-0.0087	0.0611***
Tangibility	0.0001	0.0002	0.0006	0.0001	0.0010
Empathy	-0.0020**	-0.0219***	-0.0665***	-0.0150	0.1054***
Respectful Par'	-0.0017**	-0.0185***	-0.0560***	-0.0126	0.0887***
Systemic Fair'	-0.0006	-0.0070**	-0.0209**	-0.0047	0.0331**

Key: * = 0.100, ** = 0.05, *** = 0.01; Y= the explained portion of the dependent variable

For Satisfaction with the Subject, *Tangibility* and *Systemic fairness* are not significant. *Responsiveness* is slightly significant at best. *Reliable* and *Assurances* are significant only for dissatisfaction, showing limited satisfaction for 'satisfied' and 'very satisfied'. For Satisfaction with the University, all five of the *SERVQUAL* variables are significant, while *Respectful partnership* shows limited significance for 'dissatisfaction', and it is significant for 'satisfaction'. Again,

Systemic fairness was not significant. The final dependent variable, Satisfaction with the Lecturer, has mixed influences. For the ‘satisfied’ outcome, none of the variables are significant. *Tangibility* did not significantly influence any of the dependent outcomes.

With regards to the direction of the influence, in general the independent variables have a negative effect on dissatisfaction and a positive effect on satisfaction. The exceptions to this are the effects on Satisfied with Lecturers (which are all insignificant) and *Tangibility* in the lecturer model (which is also insignificant). Hence, in general the independent variables’ relationships with the five outcomes are negative when expected, and positive when expected.

As for the size of effects, *Respectful partnership* has the largest influence on ‘satisfied’ and ‘very satisfied’ for Satisfaction with the Subject. For Satisfaction with the University, *Reliable* has the greatest effect on ‘satisfied’ and ‘very satisfied’. *Assurances* has the greatest effect on ‘very satisfied’ for Satisfaction with the Lecturer.

At the opposite end, the mitigation of dissatisfaction, for dissatisfaction with the subject *Systemic fairness* has the largest negative effect on ‘satisfied’ and ‘very dissatisfied’ indicating its importance. For dissatisfaction with the University, *Reliable* has the largest mitigating effects on both ‘dissatisfied’ and ‘very dissatisfied’. Finally for dissatisfaction with Lecturers, it appears *Assurances* has the greatest influence. Each of these effects corresponds with the effects at the opposite end of the satisfaction scale reported above.

Limitations

The study has examined factorial influences on student satisfaction, using factors established at both University and Subject level. Although factors were found to be distinct and to have significant influence, some caution should be used when comparing or ranking the relative influence of factors on the dependent satisfaction variables.

Some previous studies have reported that student characteristics and motivation for enrolment are very important determinants of student satisfaction ratings (Denson, Loveday and Dalton 2010). Similarly, some previous studies have examined the influence of grades received on student satisfaction ratings (Remedios & Lieberman, 2008). This study’s focus was to understand the effects of fairness on various aspects of satisfaction with the educational experience, not to provide a comprehensive prediction model of educational satisfaction. Important questions about the influence of student and situational differences to the findings remain to be explored.

Although this study asked students about a subject recently completed, it did not collect information about the grade received. Nor did the questionnaire try to prompt or capture salient feature of the subject the student recalled when answering the questions. Importantly, the study has not attempted to explore the relationship between student satisfaction and learning.

Lizzio et al. (2007) acknowledge that the development of *FLEQ* in a single learning environment was potentially a limitation to their study, and encouraged future researchers to draw on samples across departments and learning environments. This present study has done that but data here have been analysed without a breakdown of departmental or faculty or other differences.

Discussion and Conclusion

The paper reports that fairness is distinct from other measures of the student experience, and that perception of fairness has a significant influence on student satisfaction with lecturers, subjects and the University as a whole. We found that Lizzio et al.’s (2007) *Respectful Partnership* and *Systemic fairness* factors capture student perceptions of aspects of their experience that differ from perceptions captured by the well established *SERVQUAL* (Parasuraman et al., 1988) factors measuring education service quality. The findings here suggest that satisfaction is driven significantly by the quality of services inside and outside the classroom, and also,

separately, by perceptions of fairness. The findings support calls for a closer examination of fairness to improve our understanding the learning environment (Lizzio et al., 2007) and the drivers of student satisfaction (Nesbit & Burton, 2006).

Importantly, the study found that the strongest influence on student satisfaction with the subject as a whole was the Respectful Partnership factor. The quality of teaching is known to be a prime factor in the determination of subject evaluations (Remedios & Lieberman, 2008), and this may be a clue to what distinguishes fairness in a subject, and in particular the respectful partnership. Lizzio et al. (2007) said that the *Respectful partnership* factor ‘focused on the quality of the interpersonal treatment that students received’, including genuine displays of respect, care for students and ‘opportunities for student participation and voice’ in matters that affect them (p201). They also said that students desire a teacher-student relationship characterised by ‘partnership’ (Lizzio et al., 2007). Our finding that *Respectful partnership* was the prime driver of subject satisfaction may thus be consistent with other research, and at the same time support further exploration of the ‘partnership’ dimension in teacher-student relations.

Student satisfaction with lecturers was significantly and positively affected by six of the seven factors, emphasising the breadth of factors that lecturers should attend to when managing and reflecting on student satisfaction scores. The main drivers were *Assurances* followed by *Respectful Partnership*. *Systemic fairness* also had a significant, positive effect on student satisfaction. These findings at the subject and lecturer satisfaction level suggest that lecturers might usefully reflect on the characteristics of relations perceived by students to be a partnership, and fair subject processes.

Organisational justice studies in numerous contexts have shown that opportunity for voice, and some control over processes, leads to perception of fairness and greater acceptance of outcomes (Shapiro & Brett, 2005). Chory (2007) and Teven and McCroskey (1996) emphasised the importance of teachers communicating to students that they care, while Gibson (2010) claimed that students feel dissatisfaction if they perceive the university is not prioritising their needs. The evidence from this study suggests that if high student satisfaction is desired, universities should encourage, and lecturers should aim to adopt, teaching practices that include displays of caring about students and their opinions, and processes for enabling students a say in the design of their learning. The authors hypothesise that students want to feel that lecturers are on their side, that they are in a partnership focused on the student’s advancement. Future studies of student satisfaction could focus on exploring, operationalising and evaluating teacher-student relationships of this kind.

Satisfaction with the university as a whole is known to be the complex result of influences inside and outside the classroom (Elliot & Shin 2002), but it is important to identify the key drivers of satisfaction (DeShields *et al.*, 2005) if we are plan, manage and monitor education effectively. All of the *SERVQUAL* factors had a significant influence in this study, and the strongest positive influence on university satisfaction was student perceptions of *Reliability*. Important new contributions to our understanding of student satisfaction from this study are that student perception of a respectful partnership in their subject was found to be a significant driver of satisfaction with the university as a whole, while *Systemic fairness* was not a significant factor.

The academic program and teaching are among the main drivers of overall university satisfaction (Gibson 2010). The findings of this study add to our understanding of the teaching dimensions that are significant in student ratings of overall university satisfaction. Students’ perceptions of a *Respectful partnership* in subjects will positively influence overall ratings. Because *Respectful partnership* has been shown here to be distinct from other drivers of satisfaction, and a significant influence, universities concerned with student satisfaction should consider a more formal recognition of fairness as a factor in policy and evaluation, and in other measures of student attitude to the university as a whole. In attempting to influence this significant contributor to student satisfaction with the institution, universities should work towards under-

standing fairness in the classroom, and training and other supports that integrate fairness in course design and teaching.

This study has focused on the procedural and interactional dimensions of fairness and injustice in the *FLEQ*. Future studies should also focus on the distributive dimensions that Finkel (2001) labelled 'commonsense unfairness'. Although Finkel included some procedural elements, his typology of commonsense unfairness focused on the extent to which people do and do not receive what they work for or otherwise deserve. It seems 'commonsense' that these elements too would also have a powerful influence on student satisfaction, and that they should be integrated in future studies of the student experience.

While this paper reminds us of the complexity of influences on student satisfaction, the identification of 'perception of fairness' as an important variable enriches our understanding of the complexity and suggests ways forward. The finding that student perception of a *respectful partnership* with their lecturers significantly influenced satisfaction with subject, lecturer and university as a whole, is of particular importance because it affects so many stakeholders in the education process. Because it is so important to students and their satisfaction ratings, it will be essential that lecturers, course and education designers, faculty leaders and university administrators develop a better understanding of fairness in the classroom. The findings of this study suggest that it may be fruitful to explore a 'partnership' paradigm in lecturer-student relations from a range of viewpoints, including the characteristics, barriers and contributors, as well as intersubjective, practical and ethical considerations. Future researchers will find a wealth of studies from the organisational justice field to guide understanding and frame new research that helps us to understand fairness in the education context.

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