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ACADEMIC PAPER

Course design in sport management education: Addressing students' perspectives through conjoint methodology

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Abstract

The design of a well thought out course must satisfy programme as well as student needs. A conjoint model that compares the relative importance of six course attributes that influence students' preferences was applied to 502 undergraduate sport management students attending 12 universities in North America. Results indicated that students prefer a course that covers thematic content; incorporates field trips; uses web tools; assigns both individual and group projects; emphasises lectures and discussion; and, includes a larger number of assessments. Results are valuable and informative for academic staff to help them develop courses to satisfy students' needs and enhance teaching effectiveness.

Keywords: course design; conjoint analysis; multiattribute theory

Introduction

While the application of marketing strategies, such as enrolment management and curriculum development, are not new in higher education institutions (HEIs) (Jongbloed, 2003), the current growth in the demand for and supply of higher education (HE) has increased the need to apply more aggressive strategies and thus to focus more on service quality and student satisfaction (Joseph, Yakhou, & Stone, 2005).

HE scholars suggest that quality of education represents the core product offered by academic institutions, and the close contact and relationship between lecturers and students has been identified as one of the most significant aspects influencing students' sense of satisfaction about their institutions (Clewes, 2003; Umbach & Wawrzynski, 2005). As a result,

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quality of teaching, course content and teaching methods will all exert influence over students' perception of educational service quality (Mukherji, 2006).

To achieve service quality students' perspectives and wants must be considered, because consumer satisfaction is better achieved when the expectations of both provider and consumer align (Hill, 1995; Kelley, Donnelly, & Skinner, 1990; Sander, Stevenson, King, & Coates, 2000). This rationale suggests that, by taking into account student preferences in course design, lecturers can meet students' expectations and, in meeting those expectations, academic staff could become more effective in their teaching strategies (Guolla, 1999). An additional rationale suggesting the importance of understanding students' preferred course designs is provided by Klein, Noe, and Wang (2006) and Tinto (2000), who noted that satisfied students not only become more motivated to learn, but also that motivation and satisfaction with coursework become strong predictors of student retention. Consequently, we contend that, as part of a move towards satisfying students, academic staff should consider course design as a task that bridges the gap between what the programme has to offer and what students want. Please note that, in this paper, a "course" denotes a single semester length unit of study: what educators in the UK refer to as a "module".

In this study, we draw from consumer choice theory, and in particular from multiattribute attitude models (Fishbein & Ajzen, 1975), to examine how students make choices on their preferred course methods as applied by their academic staff. We study students' preferences using conjoint analysis, a research tool that derives from the multiattribute attitude theory of consumer choice.

Conjoint analysis is a popular research method, frequently cited in marketing research literature (Churchill & Iacobucci, 2005; Malhotra, 2004) but rarely reported in studies of sport management education. The application of conjoint methodology to consumer choice problems produces stronger results than those obtained from scale rating techniques (Huber, 1987), because it sheds light on the trade-offs that occur in the decision choice. According to consumer choice theory, the choice of a single product or service will be influenced by a multiplicity of factors that are not always possible to determine by using traditional rating scale surveys (Huber, 1987). Consumers tend to evaluate a product using various attributes of a given product. For example, when buying a computer, consumers consider attributes such as price, speed, screen size and weight, rather than evaluating it as one compact unit (Kaul & Rao, 1995).

In the context of HE, students choose a course that has the best combination of course methods or attributes. As students make their decisions on what types of course design best satisfy their needs, they make trade-offs in relation to the attributes of each teaching method. For example, when asked for their preferred type of "course projects" (a specific attribute of a course design), students could be presented with several options such as hands-on projects, field trips and traditional essay papers. Students will not only select the option of a specific attribute, but also will weigh the contribution of that particular attribute against other attributes relevant to the course design (e.g., type of test or use of technology). As a result, the trade-off process in consumer choice becomes central to understanding how actual choices occur. It not only provides insights into what product attributes are valued the most, but also under what circumstances consumers are willing to trade their ideal preferences for different ones. This critical information allows service providers to create better strategies to satisfy their consumers' demands (Hansen, 1976).

While the literature on HE shows there have been studies examining the effectiveness of multiple forms of teaching methods and technologies used in the classroom (e.g., Benware, 1984; Bonwell & Eison, 1991; Prince, 2004; Reese & Mobley, 1996; Van Eynde & Spencer, 1988; Weller, Pegler, & Mason, 2005; Wingfield & Black, 2005), only a handful of studies have focused on examining students' preferences of course design (e.g., Dubas & Strong, 1993; Tarasewich & Nair, 2000; Zufryden, 1983). More importantly, none of these studies have examined students' preferences on course design in the context of sport management education.

In this study, we hoped to contribute to the existing body of literature on sport management education by developing a conjoint model that compares the relative importance of sport management course attributes that may influence undergraduate students' preferences. Nevertheless, it is important to keep in mind that while conjoint analysis has been acknowledged as the preferred research tool for studying consumer choice, results of this type are contextually highly dependent as consumer choice decisions are influenced by a multitude of factors (Bettman, Luce, & Payne, 1998). Therefore, in this study, we primarily focused on the model and the methodology rather than the actual results. The aim was to develop a model that could be replicated in other cultural settings and environments. Nevertheless, sport management educators can benefit from the findings as they provide insights into what matters to students with regard to course design and shed light about how to increase service quality in sport management education.

Purpose of the study

The study aimed to address two main objectives. First, it aimed to apply a consumer-based perspective to sport management education programmes in order to gain insights to improve service quality and consumer satisfaction. More specifically, the study examined and compared the relative importance of sport management course attributes that influence undergraduate students' preferences. Second, the study aimed to develop a conjoint model that could be used as a template in course design decisions in the context of sport management education.

The paper first examines the basic tenets of the multiattribute attitude theory of consumer choice, and provides an overview of empirical studies on course design and student preferences. It is followed by the method section, which includes an overview of how to conduct a conjoint analysis, and the results section. Finally, the discussion includes ideas for future research.

Multiattribute attitude theory of consumer choice

Theories of consumer choice have been drawn from different perspectives. Among these, two of the most common are the rational models and the informational processing models (Bettman et al., 1998; Wilkie, 1994). Rational models posit that choice results from a logical analytical process in which consumers compare utility (numerical) values assigned to each product attribute. This model assumes that individuals have all the information and the capacity to process such information. In a different stream, informational processing models suggest that individual capacity for analysis is limited and that, rather than rational analysis based on value scores, decisions are mainly influenced by perceptions and the attitude formation towards the product.

Under the umbrella of informational processing models is the multiattribute attitude theory developed by Fishbein and Ajzen (1975), also known as Fishbein's multiattribute model. This model posits that the preference for a determined product is influenced by the multiplicity of attitude consumers have towards the product and the strength of the belief towards the attributes of the product. The mathematical expression of the basic Fishbein's multiattribute model is formulated as follows.

$$A_j = \sum_{i=1}^n B_{ij} I_i$$

Equation 1: Fishbein's multiattribute model

In this model: "i" is the attribute of the product, "j" is the brand of the product, "A" represents the consumer's attitude towards the brand "j", "I" is the importance given to an attribute "i"; and "B" refers to the strength of the consumer's belief towards attribute "i" of the product "j" (Wilkie, 1994, p. 288).

A central task in consumer research is to understand how choices are made and what influences choice. Studies that focus solely on asking consumers the degree to which they

like/dislike a determined product fail to address this question. Basically, a single and one at a time observation (e.g., a response to a single question) fails to capture how behaviour towards a product is influenced by the presence of other attributes. Thus, single evaluations of product-specific features do not tell us much about what determines choice and under what circumstances choice for a particular product will occur. On the other hand, by examining the consumers' behaviour towards a product, it is possible to infer under what circumstances they would change or adapt their preferences in relation to that product.

In the multiattribute attitude model, products are seen as having a bundle of attributes that differentiate them from their counterparts (Dubas & Strong, 1993). An attribute refers to a specific product characteristic that is salient in influencing consumer choice (Hair, Anderson, Tatham, & Black, 1998). From this perspective, the multiattribute attitude model suggests that consumers can develop more than a single attitude towards a product. Thus, Fishbein's model proposes that, in order to understand how consumers make choices, researchers must focus on the behaviour of the consumer towards the product (Foxall, 1983).

Consequently, the examination of attitude formation becomes central in this task. Attitudes are learned predispositions geared to respond to a certain stimulus. Thus, attitudes play a key role in influencing a consumer's behaviour. Attitudes contain three components: cognitive, affective and conative. According to Wilkie (1994), the cognitive component refers to how much information consumers have of the product (e.g., "online courses are difficult to follow"); the affective component refers to the feelings consumers have toward that product (e.g., "I love hands-on projects"); and the conative component indicates the tendency to act or not to act in regards to that product (e.g., "I would take more courses that require essay writing").

In terms of applicability, Fishbein's model is used "to provide insights into the structure of the consumer's mind" (Wilkie, 1994, p. 290). The model uses a compositional matrix that allows researchers to calculate the value consumers assign when assessing the perceived importance of each attribute and the strength of the belief of that importance based on a behavioural response. For example, students may be asked to rate the perceived importance of various teaching strategies used in the classroom throughout the past academic year. They will then be asked to rate their level of satisfaction with each of the teaching strategies. In practical terms, results like these provide academic staff with valuable information about why their students prefer certain teaching strategies. This information, if timely and adequately managed, could impact on the student's sense of satisfaction.

According to Silk (2006), the multiattribute attitude theory has a fairly high level of predictive validity. As a result, it is of interest for practitioners, providing critical information on how marketers could change their consumers' attitudes. By understanding consumers' behaviours towards a particular brand it would be possible to influence consumers' preference towards a certain products by changing the ascribed features of the product.

Since the early days of the multiattribute theory, significant advancements have been made in marketing and consumer behaviour studies that have been influenced by the theory (Silk, 2006). One of the advancements derived from this theory was the development of the conjoint methodology (Green & Srinivasan, 1978), which is an elaborated application of Fishbein's model. In the method section of this paper, a more refined description of how to use and apply conjoint methodology is provided.

Course design and student preferences

While the literature on HE business and marketing education recommends including students' perspectives when designing new courses (Fink, 2003; Guolla, 1999; Henderson, Spiller, Kunz, & Ratliff, 2003; Sander et al., 2000), only a very small number of empirical studies have been carried out within the last 25 years. However, many of these studies have included conjoint analysis as their main method to address this task. Zufryden (1983) examined students' preferences in an MBA course. Five attributes and 13 levels were identified from a focus group that included students enrolled in the course. Preferred

attributes comprised technical course content, student career orientation content, teaching format, level of computer application, and level of mathematical sophistication. Results revealed that students preferred a course with a strong managerial orientation.

In a similar vein, Dubas and Strong (1993) examined the preferences of graduated students attending a course in multivariate analysis. The selection of attributes resulted from input from academic staff, former and current students. The conjoint model included five attributes and 13 levels that yielded 18 profiles. The most preferred course design was the one that students were then taking. Dubas and Strong noted that familiarity bias should be taken into account in future studies.

Katzenstein, Kivil, Mummalaneni and Dubas (1994) examined students' preferences in a direct marketing course. Attributes that were identified included course content, teaching methods, teaching aids, and work experience. They noted that, when selecting critical attributes, researchers should include the perspectives of other stakeholders such as employers and academic staff.

Finally, Tarasewich and Nair (2000) examined the course design preferences of students and academic staff participating in a business course. The study distinguished between product attributes and product characteristics. Basically, it posited that designers and consumers observe a product from two different perspectives. Thus, in the context of course design, students will look for product attributes while lecturers will look for product characteristics (see Kaul & Rao, 1995, for a full explanation).

While each of the above studies generated results that were meaningful to each particular context, they also increased our understanding of how to employ conjoint analysis when assessing students' preferences for a course design. Specifically, these studies provided insights into how to select critical attributes while taking into account the perspectives of different stakeholders.

Method

Conjoint methodology

Conjoint methodology was introduced in marketing research by researchers from mathematical psychology who were interested in understanding how choices were made. In consumer decision making a consumer faces two or more choices and the alternatives present a degree of conflict. From this perspective, a consumer is forced to make a trade-off among the existing options (Hansen, 1976). Conjoint analysis creates scenarios that emerge from the combination of attributes and levels of the product. In each scenario, consumers evaluate a variation of the same product and weigh which aspect they are willing to trade in order to reach what they consider their best preference (Green & Srinivasan, 1978; Huber, 1997). Hence, consumers are presented with scenarios that are very much like the ones they may find in real life.

In this study, conjoint analysis was preferred over traditional ranking order techniques because the method was best suited to the problem in question, that of choice. While there are several types of conjoint analysis (see Huber, 1997), a full profile conjoint method is one of the most common measurement tasks used (Hair et al., 1998) and was employed in this study.

Attributes and levels

As previously stated, conjoint analysis produces a model that estimates an individual's first preference after evaluating the ratings over the different attributes and levels of the product. A product contains a bundle of attributes. These are the specific characteristics which make that product unique and different from its alternative products. In addition, each product attribute can have up to four levels (Hair et al., 1998). A level is the specific variation within the attribute to which consumers assign a value to reflect their preference (Green &

Srinivasan, 1990). For example, participants in this study were presented with three levels for the attribute "teaching format": "primarily lectures", "primarily discussions", and "equal emphasis on lecture and discussion".

Conjoint course scenarios

In this study, to create the conjoint scenarios, six course attributes were selected, based on the literature review (e.g., Dubas & Mummalaneni, 1997; Dubas & Strong, 1993; Gustafsson, Ekdahl, & Bergman, 1999; Tarasewich & Nair, 2000; Taylor, Humphreys, Singley, & Hunter, 2004; Zufryden, 1983) and in consultation with a panel of experts of five sport management lecturers.

The study focused on attributes that academic staff could control. For example, the gender of lecturers was not considered because lecturers' gender is not an attribute that academic staff can control, even though this attribute might influence students' selection of registration preferences (McGoldrick & Schuhmann, 2002). Accordingly, the six selected course attributes were chosen based on attributes that were (a) primarily under the control of academic staff, (b) not course-specific but applicable to most sport management courses, and (c) proven to be critical in equivalent disciplines such as business majors (e.g., Dubas & Mummalaneni, 1997; Taylor et al., 2004; Zufryden, 1982).

Students were asked to rate 16 sport management course scenarios on an 11-point scale from 0 (*do not prefer*) to 10 (*strongly prefer*). The design option of the SPSS programme was used to create 16 course scenarios that differed on the following six attributes: (a) the use of electronic resources (web tools or no web tools); (b) thematic content (broad or specific); (c) type of assignments (individual, group, or both individual and group projects); (d) teaching format (primarily lectures, primarily discussions, or equal emphasis on lecture and discussion); (e) teaching aids (guest speakers, field trips, or no aid); and (f) number of assessments per term (heavily weighted one exam, moderately weighted two exams, or lightly weighted three exams). Participants were instructed to consider those 16 course scenarios as their major courses in general.

Analytical procedure

Since the study used rating scales to evaluate each hypothetical course, SPSS conjoint programme (ordinary least square) was used to estimate the part-worths (also referred to as "utilities") of each course attribute. Unstandardised regression coefficients were used as part-worth values for each attribute level (see Table 1). In addition, a sensitivity analysis was conducted as an application of conjoint analysis. The relationships between attribute levels and importance for different levels of attributes are illustrated in Figure 1: the steeper the slope, the greater the rate of change in course attractiveness in relation to the change in each course attribute (or attribute level).

Rank	Attribute	Part-worth	Part-worth range	Relative importance
1	Teaching aids Field trip Guest speaker No aid	0.46 0.14 -0.60	1.06	35.1%
2	Assessments 3 exams 2 exams 1 exam	1.23 0.82 0.41	0.82	27.3%
3	Web tool Web tool No tool	0.30 -0.30	0.60	20.1%
4	Course content Specific Broad	0.10 -0.10	0.21	6.9%

5	Teaching format Lecture + discussion Discussion Lecture	0.07 0.03 -0.10	0.16	5.5%
6	Assignments Both Individual Group	0.07 0.00 -0.08	0.15	5.1%
	Total		3.00	100

Table 1: Results of the aggregate conjoint analysis: contribution of attributes to evaluation of course preference

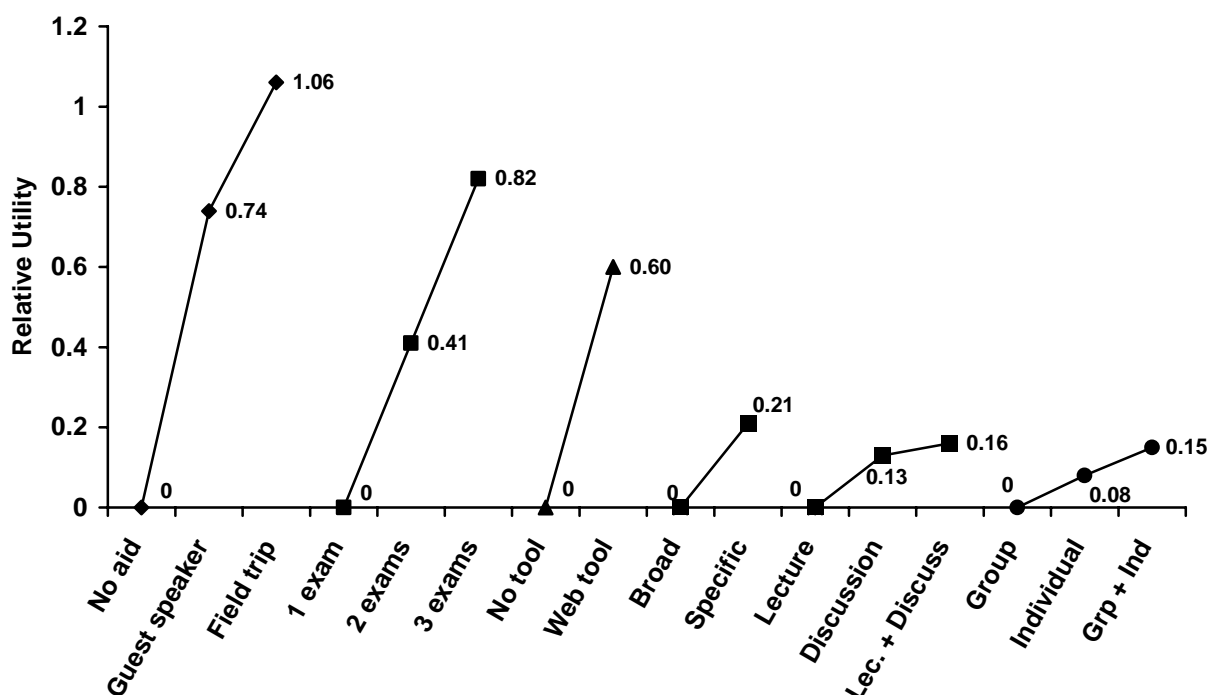


Figure 1: Graphic representation of part-worth utilities

Note: The utility scores were shifted by a constant within each attribute to make the worst level of each equal to 0.

Conjoint analysis

In conjoint analysis, models can be analysed at either the aggregate (one model per all respondents) or disaggregate level (one model per respondent). Since the purpose of the analysis was to investigate the general preferences of students, rather than individual differences in preferences concerning course attributes, an aggregate (group level) conjoint analysis was conducted (Hair et al., 1998).

The dependent variable consisted of students' ratings for the course scenarios and the independent variables were the six attributes of the courses. The part-worth ranges (or utilities) were measured by the regression coefficients associated with the attribute level. In a conjoint analysis, the total utility or preference of a given product encompasses the partial utilities derived from all product attributes (Hair et al., 1998; Orme, 2006). Thus, the mathematical expression of the model is linearly formulated as follows.

$$Y = b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + e$$

Equation 2: Conjoint model equation

“Y” denotes respondents’ preference for a given course scenario, “b₁” through “b₆” are regression weights (that is, utilities) for the course attributes, and “e” is an error term. All attributes were treated as categorical variables in the regression model. Using the model in Equation 1, the utility (preference) for any composition of a course can be predicted.

Sensitivity analysis

Based on the results from the conjoint analysis in this study, a sensitivity analysis was conducted. Basically, sensitivity analysis aims to judge respondents’ preference for a specific scenario. In a sensitivity analysis, the value of any given scenario (in this case, a sport management course) is determined by summing the attributes’ values, which are utilities (relative importance scores) obtained from the conjoint analysis (Orme, 2006).

Sample and procedure

A convenience sampling method was used to recruit and collect data from sport management undergraduate students attending 12 sport management programmes in nine different states within the USA. Data were collected using a paper and pencil survey. Lecturers who agreed to administer the survey distributed the questionnaire to students during the teaching session, and participants completed the questionnaire on a voluntary basis. Of the 505 sport management students in the respondent sample, 502 students (365 men and 129 women) provided usable ratings in the conjoint section of the questionnaire (eight respondents did not specify their gender). The average age of the subjects was 21.2 years (SD = 2.27 years), 85.7% were third and fourth-year students on a four-year course of study in North America (n = 430), and 14.3% were first and second-years (n = 64), while eight respondents did not specify their school year. More than half of the respondents were white/Caucasian (54.5%, n = 269).

Results

Aggregate conjoint analysis

The conjoint model was estimated by regressing course preferences against six course attributes. The validity of the observations was estimated using Pearson correlation ($r = .995$, $p < .001$) and Kendall’s tau ($\tau = .995$, $p < .001$). Table 1 shows the relative importance of the six selected attributes on course choice behaviours and importance between attribute levels. For each course attribute, the difference between the most and the least preferred attribute level was calculated to represent the part-worth range (i.e., the utility value of each course attribute). Taking the example of “teaching aids”, the most preferred level was “field trip” while the least preferred level was “no aid”. Thus, the part-worth range was 1.06 [= 0.46 - (-0.60)]. As calculated, changing “teaching aids” from “no aid” to “field trip” had a change in utility of 1.06 units, while changing assignment type from “group assignment only” to “both individual and group assignments” created a utility change of 0.15 [= 0.07 - (-0.08)]. Thus, in this case, the change in teaching aids influenced course preference more than assignment type. The relative importance of each attribute can be calculated by dividing the utility range for each attribute by the total sum of all utility ranges (Orme, 2006). Thus, the relative importance of teaching aids was 35.1% (= 1.06/3.00).

The results of the conjoint analysis, shown in Table 1, indicated that the course preference of undergraduate sport management students was most influenced by “teaching aid” or “field experience” (35.1%), followed by “number of assessments” or “grading weights on each exam” (27.3%), “use of electronic web-based resources” (20.1%), “thematic content” (6.9%), “teaching formats” (5.5%) and “types of assignments and projects” (5.1%). Relatively, the use of teaching aids was about five to seven times more important than teaching formats ($6.9 = 35.1/5.1$), type of assignments ($6.4 = 35.1/5.5$) and thematic content ($5.1 = 35.1/6.9$).

Most versus least preferred course

In terms of the six attributes examined, sport management undergraduate students preferred courses that covered specific content (narrow rather than broad), incorporated field trips to aid field experience, used a web tool to communicate with students, assigned a combination

of individual and group projects, emphasised both lecture and discussion and provided three lightly weighted exams. In addition, the following attributes appeared to be attractive to individual students: (a) primarily discussion-based teaching method, (b) guest speakers as teaching aids and (c) two moderately weighted exams.

On the other hand, students least preferred courses in which they were assigned group-based projects and assignments only, were unable to use a web course tool, were taught mainly by lectures, without guest speakers or field trips, which covered a broad range of course content, and in which they were tested by a single heavily weighted exam (see Tables 1 and 2).

A closer examination of the results indicated that preference for a course increases as testing frequency (or the number of examinations per course) increases. In this study, this relationship was linear: preference increased linearly from "one exam" to "two exams" and from "two exams" to "three exams". With regard to teaching aids, both "field trip" (utility = 0.46) and "guest speaker" (0.14) were preferred in comparison to "no aid" (-0.60). Relative to the other teaching aids, holding everything else constant, "no teaching aid" was the least preferred of the three levels. In terms of assignments, both "combination of group and individual assignments" (utility = 0.07) and "individual assignments only" (0.00) were preferred when compared to "group assignments only" (-0.08). It should be noted that owing to dummy coding in the conjoint analysis, the utility value of "individual assignments only", which was close to zero, does not mean that it was unattractive. In fact, "individual assignments only" was more attractive than "group assignments only" and was relatively less attractive than "combination of group and individual assignments". As with teaching format, both "equal emphasis on lecture and discussion" (utility = 0.07) and "primarily discussion" (0.03) were almost equally preferred in comparison to "primarily lecture" (-0.10).

	Most preferred	Least preferred
Course attribute levels	Use of a web course tool Specific course contents Equal emphasis on lecture and discussion Field trip (as a teaching aid) Frequent lightly weighted exams Combination of group and individual assignments	Not using a web course tool Broad course contents Primarily lectures only No teaching aid Single heavily weighted exam Group assignments only

Table 2: Most versus least preferred sport management course attributes

Sensitivity analysis

Table 3a and 3b report the utility scores for the base course, and the most and least preferred course based on the provided course attribute levels used in this study. The tables illustrate how much lecturers can make their course better (or worse) by changing its attributes. Assuming course attribute levels are the same as the base course, by changing course attribute levels (e.g., requiring three exams instead of two exams, or having a field trip), it is possible to increase students' preferences towards the course by 129%. Conversely, course preference may drop to 76% from 100%. Take the example of course A (most preferred) and C (least preferred): sport management academic staff are able to increase students' preference for their courses by 170% if they make the appropriate adjustments.

Courses	Constant	Aids	Number of assessments	Web tool	Course content	Teaching format	Assignment type
A. Most preferred	5.08	0.46	1.23	0.30	0.10	0.07	0.07
		field trip	3 exams	web tool	specific	mixed	mixed
B. Base course	5.08	0.14	0.82	-0.30	-0.10	0.03	0.00
		guest	2 exams	no tool	broad	discuss	individual
C. Least preferred	5.08	-0.60	0.41	-0.30	-0.10	-0.10	-0.08
		no aid	1 exam	no tool	broad	lecture	group

Table 3a: Sensitivity analysis: most preferred vs base vs least preferred course

Courses	Utility*	Ratio to base	Ratio to least
A. Most preferred	7.32	1.29	1.70
B. Base course	5.67	1.00	1.31
C. Least preferred	4.32	0.76	1.00

Table 3b: Sensitivity analysis: most preferred vs base vs least preferred course

Note: Utility* = Constant + U_(Aids) + U_(# test) + U_(Web tool) + U_(Content) + U_(Format) + U_(Assignment)

Discussion

Among the six course attributes examined, when evaluating course preferences, sport management undergraduate students prioritised “teaching aids”, followed by “number of exams”, “use of a web course tool”, “scope of the content covered in the course”, “teaching format” and “the type of assignments”. The results indicated that, similar to business majors, sport management students give preference to modes of teaching (e.g., computer-aided instruction and short lectures combined with discussion) that essentially emphasise active learning (Stewart & Felicetti, 1992; Taylor et al., 2004).

The importance of teaching aids is closely related to the nature of sport management as an academic discipline, because it is a practical programme (especially for undergraduate education). Since undergraduate students plan to get a job in the sport industry, they are more concerned about teaching aids such as “field trips” and “guest speakers” because they are in need of immediately applicable knowledge (Newman & Hebein, 2005; Velo & Fournier, 2008). In line with findings from the studies of Dubas and Mummalaneni (1997) and Karns (1993) with undergraduate business major students, teaching strategies including “real world” experiences were considered very important by the students in this study. As suggested by practitioners in sport management, networking with people becomes more critical as the job market becomes more competitive (Hoff, Kroll & Fletcher, 2007). Thus, students might see guest speakers and field trips as a way to build their job-related networks. Having a field trip can be beneficial for courses such as sport business, sport marketing, and sport facility and event management, as students can observe what happens at the sport venue in terms of marketing, administration and operations.

Since exams form a major part of their grade, students placed greater weight on the number of exams. Specifically, students preferred frequent lightly weighted exams over a single heavily weighted exam. The results regarding number of exams were consistent with a previous study by Taylor et al. (2004), who found that the number of examinations was one of the most important course attributes, especially for lower level undergraduate courses, in shaping student preferences about particular business courses. The study found that students felt it was risky to take only one exam. Lecturers might offer at least two traditional forms of assessment (e.g., mid-term and final exams).

Consistent with Taylor et al.’s (2004) study, students were influenced to a great extent by the availability of a web course tool. This was relatively more important than thematic content, teaching format and type of assignment. Now that many lecturers use web tools such as

WebCT, Blackboard or private websites, students may feel that a web course tool is a critical course attribute. Students prefer to use a web course tool because it allows them to access course materials at any time, communicate with their classmates using a discussion board and check their grades online (Taylor et al., 2004). As educational technology advances, including web course tools, lecturers should consider full use of various functions of the web course tool. Regarding the use of technologies, Weller et al. (2005) found that technologies such as group blogging and text-based communication systems were favourably received by students in e-learning or blended contexts. The result is particularly important for sport management programmes that offer online degree courses. In addition to a traditional web course tool such as WebCT and Blackboard, academic staff should not only consider using optional features of traditional web course tools, but also technologies such as instant messengers, audio/videoconferencing or even podcasting (Tyre, 2005). However, as Weller et al. (2005) noted, the adoption of such advanced technologies should be based on learning objectives, accessibility and students' level of technology acceptance.

The results also revealed that students preferred courses to cover specific rather than broad content. This finding was different from that of Gustafsson et al.'s (1999) study conducted in the context of total quality management (TQM) courses. While TQM students preferred a course with wide topical areas, sport management students in this study indicated their preference for more deep or specified contents. In cases where there are not many lecturers for a programme, programmes will inevitably offer courses that cover broader topical areas. However, if possible, academic staff should design each course to cover more in-depth content by removing a few less important topical areas. In doing this, lecturers could deliver more critical and up-to-date educational content to students.

In terms of teaching format, students preferred a course delivered through both lecture and discussion (i.e., short lectures followed by discussion) rather than just by lecture or discussion. This finding is in line with the literature on teaching, which strongly suggests the inclusion of more active types of methods as opposed to the traditional lecturer-centred approach (Benware, 1984; Fink, 2003; Bonwell & Eison, 1991). This can be seen as evidence of sport management students' preferences for a holistic learning style (Stewart & Felicetti, 1992). While lecture-based sessions can allow lecturers to deliver much more information to students compared to discussion-based sessions, many sport management courses require more in-depth discussion to improve the education of students by keeping them engaged in their learning process. For example, sport management courses that cover ethical and sociological topics requiring critical thinking must consider group discussions to advance students' understanding of given topics and to contribute to their development of analytical skills.

Finally, students preferred to have both individual and group-based assignments. In this way, they could show their individual knowledge and ability to the lecturer while developing collaborative skills. While students least preferred a course with only group assignments, lecturers should assign group-based work because, in their future careers, students will work in a group. As Noe, Hollenbeck, Gerhart, and Wright (2006) noted, organisations are now using more project- or team-based systems. Lecturers should therefore consider using both individual and group-based assignments to evaluate students' class performance.

The results of the sensitivity analysis show that lecturers can increase the attractiveness of their courses, or the perceived quality of each course, by incorporating what students prefer. Thus, by accommodating students' wants, while not compromising educational objectives, sport management academic staff can enhance the quality of the service provided to students (i.e., service quality) and consequently increase students' satisfaction with educational services (Kelley et al., 1990; Umbach & Wawrzynski, 2005). Results of this study suggest that lecturers should give primary importance to the use of teaching aids or "real world" experience and electronic web-based resources, since these two attributes do not necessarily change the course structure and easily add value to a course. Revising the number of exams, course content, teaching formats and group assignments should be implemented after considering the course objectives and the students' characteristics.

Limitations and future research

This study used conjoint analysis and there are several limitations to this analytical method. The specific course attributes investigated were chosen from studies of disciplines other than sport management. As suggested by Dubas and Strong (1993), preferences for specific attributes might vary from one group to another. Consequently, it is important that future studies examine the validity of the importance of these six course attributes as perceived by sport management students. These results should therefore be carefully interpreted within the context of the course attribute and attribute levels used in this study. In addition, the number of attributes must also be considered when conducting conjoint studies. It is recommended that no more than seven attributes are used to avoid information overload (Hair et al., 1998). For this study we selected only six course attributes and, while these attributes can all be considered critical, future investigations may consider examining different ones, such as the time or days when courses are offered. Similarly, future studies may specify course conditions if a programme offers (or plans to offer) evening sessions or online courses. One of the recent trends is to offer distance learning or evening degree options in order to attract more students. Clearly, it is expected that some of the course attributes used in this study would not be feasible in online course settings (e.g., field trips). Further studies should also examine the relative importance of course attributes in postgraduate programmes, and academic staff and employer preferences should also be examined, because obtaining input from other stakeholders has been reported to be critical to conducting a more realistic view of how a course should be designed (Katzenstein, Kivil, Mummalaneni, & Dubas, 1994).

Finally, readers should carefully consider the context of the current study: sport management programmes in the USA. Cultural context and academic discipline can play a large role in students' expectations and preferences concerning course designs in HE. Future studies could examine cultural or contextual differences concerning course design issues.

Notwithstanding these limitations, the current study was able to demonstrate the application of a conjoint analysis in understanding sport management students' preferences for course attributes. Results from this study can be used to develop better courses, especially those in traditional classroom settings, to satisfy sport management students and, in turn, to enhance teaching effectiveness. Given that academic service quality influences students' satisfaction and learning, findings can help sport management lecturers design courses which students are more satisfied with while potentially learning more about the subject they are studying.

References

- Benware, C. A. (1984). Quality of learning with an active versus passive motivational set. *American Educational Research Journal*, 21, 755-765. [doi:10.3102/00028312021004755](https://doi.org/10.3102/00028312021004755)
- Bettman, J. R., Luce, M. F., & Payne, J. W. (1998). Constructive consumer choice processes. *Journal of Consumer Research*, 25, 187-217. [doi:10.1086/209535](https://doi.org/10.1086/209535)
- Bonwell, C. C., & Eison, J. A. (1991) *Active learning: creating excitement in the classroom*. ERIC Digest. ERIC Clearinghouse on Higher Education Washington DC. - FGK28050. George Washington University. Washington DC (ERIC Document Reproduction Service No. ED340272).
- Churchill, G. A. & Iacobucci, D. (2005). *Marketing research: Methodological foundations* (9th ed.). Mason, OH: Thompson South-Western.
- Clewes, D. (2003). A student-centred conceptual model of service quality in higher education. *Quality in Higher Education*, 9, 69-85. [doi:10.1080/13538320308163](https://doi.org/10.1080/13538320308163)
- Dubas, K. M., & Mummalaneni, V. (1997). Self-explicated and full-profile conjoint methods for designing customer-focused courses. *Marketing Education Review*, 7(2), 35-48.
- Dubas, K. M., & Strong, J. T. (1993). Course design using conjoint analysis. *Journal of Marketing Education*, 15(1), 31-36. [doi:10.1177/027347539301500105](https://doi.org/10.1177/027347539301500105)
- Fink, L. D. (2003). *Creating significant learning experiences*. San Francisco, CA: Jossey-Bass.
- Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Foxall, G. R. (1983). *Consumer choice*. London: The Macmillan Press Ltd.
- Green, P. E., & Srinivasan, V. (1978). Conjoint analysis in consumer research: Issues and outlook. *Journal of Consumer Research*, 5, 103-123. [doi:10.1086/208721](https://doi.org/10.1086/208721)

- Green, P. E., & Srinivasan, V. (1990). Conjoint analysis in marketing: New developments with implications for research and practice. *The Journal of Marketing*, 54(4), 3-19. [doi:10.2307/1251756](https://doi.org/10.2307/1251756)
- Gustafsson, A., Ekdahl, F., & Bergman, B. (1999). Conjoint analysis: A useful tool in the design process. *Total Quality Management*, 10, 327-343. [doi:10.1080/0954412997866](https://doi.org/10.1080/0954412997866)
- Guolla, M. (1999). Assessing the teaching quality to student satisfaction relationship: applied customer satisfaction research in the classroom. *Journal of Marketing Theory and Practice*, 7(3), 87-99.
- Hair, J., Anderson, R., Tatham, R., & Black, W. (1998). *Multivariate data analysis* (5th ed.). New Jersey: Prentice-Hall.
- Hansen, F. (1976). Psychological theories of consumer choice. *Journal of Consumer Research*, 3, 117-142. [doi:10.1086/208660](https://doi.org/10.1086/208660)
- Henderson, K., Spiller, S., Kunz, M., & Ratliff, J. (2003). Teaching old dogs new tricks or simply using the old tricks at the right time. *Journal of Business & Economics Research*, 1(3), 69-74.
- Hill, F. M. (1995). Managing services quality in higher education: the role of the students as primary consumers. *Quality Assurance in Education*, 3(3), 10-21. [doi:10.1108/09684889510093497](https://doi.org/10.1108/09684889510093497)
- Hoff, K. S., Kroll, J., & Fletcher, C. (2007). Developing a professional perspective. In J. Parks, J. Quarterman, & L. Thibault (Eds.), *Contemporary sport management* (pp. 27-46). Champaign, IL: Human Kinetics.
- Huber, J. (1987). Conjoint analysis: How we got here and where we are. *Proceedings of the Sawtooth Software Conference on Perceptual Mapping, Conjoint Analysis, and Computer Interviewing* (pp. 237-252). Sequim, WA: Sawtooth Software, Inc.
- Huber, J. (1997). *What we have learned from 20 years of conjoint research: When to use self-explicated, graded pairs, full profiles or choice experiments*. Sequim, WA: Sawtooth Software, Inc.
- Jongbloed, B. (2003). Marketisation in higher education, Clarke's triangle and the essential ingredients of markets. *Higher Education Quarterly*, 57, 110-135. [doi:10.1111/1468-2273.00238](https://doi.org/10.1111/1468-2273.00238)
- Joseph, M., Yakhou, M., & Stone, G. (2005). An educational institution's quest for service quality: Customers' perspective. *Quality Assurance in Education*, 13, 66-82. [doi:10.1108/09684880510578669](https://doi.org/10.1108/09684880510578669)
- Katzenstein, H., Kavil, S., Mummalaneni, V., & Dubas, K. M. (1994). Design of an ideal direct marketing course from the students' perspective. *Journal of Direct Marketing*, 8(2), 66-72. [doi:10.1002/dir.4000080209](https://doi.org/10.1002/dir.4000080209)
- Kaul, A. & Rao, V. R. (1995). Research for product positioning and design decisions: An integrative review. *International Journal of Research in Marketing*, 12, 293-320. [doi:10.1016/0167-8116\(94\)00018-2](https://doi.org/10.1016/0167-8116(94)00018-2)
- Karns, G. L., (1993). Marketing student perceptions of learning activities: Structure, preferences, and effectiveness. *Journal of Marketing Education*, 15(1), 3-10. [doi:10.1177/027347539301500102](https://doi.org/10.1177/027347539301500102)
- Kelley, S. W., Donnelly, J. H., & Skinner, S. J. (1990). Customer participation in service production and delivery. *Journal of Retailing*, 66(3), 315-35.
- Klein, H. J., Noe, R. A., & Wang, C. (2006). Motivation to learn and course outcomes: The impact of delivery mode, learning goal orientation, and perceived barriers and enablers. *Personnel Psychology*, 59 665-702. [doi:10.1111/j.1744-6570.2006.00050.x](https://doi.org/10.1111/j.1744-6570.2006.00050.x)
- Malhotra, N. K. (2004). *Marketing research: An applied orientation* (4th ed.). Upper Saddle River, NJ: Pearson.
- McGoldrick, K., & Schuhmann, P. W. (2002). Instructor gender and student registration: An analysis of preferences. *Education Economics*, 10, 241-260. [doi:10.1080/09645290210127480](https://doi.org/10.1080/09645290210127480)
- Mukherji, S. (2006). Explanatory factors for overall instructor and course ratings. *Journal of College Teaching & Learning*, 3(2), 29-38.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, D. M. (2006). *Human resource management: Gaining a competitive advantage* (6th ed.). New York: McGraw-Hill.
- Newman, E. J., & Hebein, F. (2005). Integrated learning through experience: Sports marketing education is all about the little things. *Journal of Business & Economics Research*, 3(4), 25-29.
- Orme, B. (2006). *Getting started with conjoint analysis: Strategies for product design and pricing research*. Madison, WI: Research Publishers LLC.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231.
- Reese, A. C., & Mobley, M. F. (1996). Academic success through quality-managed course design. *Innovative Higher Education*, 20, 171-182. [doi:10.1007/BF01190589](https://doi.org/10.1007/BF01190589)
- Sander, P., Stevenson, K., King, M., & Coates, D. (2000). University students' expectations of teaching. *Studies in Higher Education*, 25, 309-323. [doi:10.1080/03075070050193433](https://doi.org/10.1080/03075070050193433)
- Silk, A. J. (2006). *What is marketing?* Boston, MA: Harvard Business School Press.
- Stewart, K. L., & Felicetti, L. A. (1992). Learning styles of marketing majors. *Educational Research Quarterly*, 15(2), 15-23.
- Tarasewich, P., & Nair, S. K. (2000). Course design using instructor and student preferences. *Journal of Business & Economic Studies*, 6(2), 40-54.

- Taylor, S. A., Humphreys, M., Singley, R., & Hunter, G. L. (2004). Business student preferences: Exploring the relative importance of web management in course design. *Journal of Marketing Education, 26*, 42-49. [doi:10.1177/0273475303262352](https://doi.org/10.1177/0273475303262352)
- Tinto, V. (2000). Linking learning and leaving: Exploring the role of the college classroom in student departure. In J.M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 81-94). Nashville, TN: Vanderbilt University Press.
- Tyre, P. (2005, November 28). Professor In your pocket. *Newsweek*. Retrieved December 12, 2008, from <http://www.newsweek.com/id/51275>
- Umbach, P. D., & Wawrzynski, M. R. (2005). Faculty do matter: The role of college faculty in student learning and engagement. *Research in Higher Education, 46*, 153-184. [doi:10.1007/s11162-004-1598-1](https://doi.org/10.1007/s11162-004-1598-1)
- Van Eynde, D. F., & Spencer, R. W. (1988). Lecture versus experiential learning: Their differential effects on long-term memory. *Organizational Behavior and Teaching Review, 12*(4), 52-58.
- Velo, V. & Fournier, H. (2008). Connecting research, teaching and the student experience in innovative ways through participation at major sports events. *Journal of Business Case Studies, 4*(7), 1-15.
- Weller, M., Pegler, C., & Mason, R. (2005). Use of innovative technologies on an e-learning course. *Internet and Higher Education, 8*, 61-71. [doi:10.1016/j.iheduc.2004.10.001](https://doi.org/10.1016/j.iheduc.2004.10.001)
- Wilkie, W. L. (1994). *Consumer behavior* (3rd ed.). New York: John Wiley & Sons, Inc.
- Wingfield, S. S., & Black, G. S. (2005). Active versus passive course designs: The impact on student outcomes. *Journal of Education for Business, 81*, 119-123. [doi:10.3200/JOEB.81.2.119-128](https://doi.org/10.3200/JOEB.81.2.119-128)
- Zufryden, F. S. (1983). Course evaluation and design optimization: A conjoint analysis-based application. *Interfaces, 13*(2), 87-94. [doi:10.1287/inte.13.2.87](https://doi.org/10.1287/inte.13.2.87)

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