

Dimensions of Quality in Online Business Course Offerings: Content, Format and Feedback

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In this study, the authors identify relevant dimension of quality in business online course offerings. Taking a customer orientation, this study examined the dimensions of students' expectations and their satisfaction with the fulfillment of those expectations. In a two step process, relevant service dimensions have been identified and their importance explored. From the original fifteen dimensions of perceived quality, six dimensions were identified to have a statistically significant influence on the overall satisfaction with the quality of a business online course. The delivery of online courses needs to consider the important dimensions of content, format and feedback in order to increase the chances for overall satisfaction with the online course experience. Ratings of students with relatively higher grade expectations at the start of the online experience correlated positively with a higher overall satisfaction in the respective online courses. The implications of the findings for online course instructors and college administrators are discussed.

INTRODUCTION

The state of information technology and the ongoing technological evolution constitute a force that has significant influence on the development of higher education (JISC, 1995). Information technology has, above all, influenced the face of distance education within the last decade. Today numerous technologies enhance distance education provisions and have given this form of learning a very different character as compared to the mail format that was prevalent a few years ago. The potential of Internet-based learning has even triggered a vast number of traditional higher education providers to incorporate online course offerings into their curriculum. While in 1995 twenty-two percent of institutions of higher education offered internet-based courses, this number grew to 60 percent in 1998 (U.S. G.P.O. [USGPO], 2003). In 2003, 81 percent of American 4-year colleges and universities offer online courses, and 34 percent offered one or more complete online degree programs (Conhaim, 2003). The supply of online programs by universities is mirrored on the student demand side: According to the U.S. Department of Education the enrollment in online courses nationally has more than doubled from 1997 to 2001 (Bowler, 2003). More than three million students were enrolled in online classes in 2001, a number that is projected to increase to six million by the year 2006 (Conhaim, 2003).

The described development is to a great extent motivated by a tremendous shift in the attitude university administrators and academics have towards this form of delivering higher education. While

some vocal individuals may view distance education as the extreme commercialization of higher education (Slabbert & Saks, 2004), a broad basis of scholars obviously have come to accept online education as a legitimate and (cost-) effective way to deliver higher education. A study by the Sloan consortium indicates that 70 percent of university administrators view online education as a critical long-term strategy for their schools (Rudavsky, 2004). The field of online education has even expanded to include standards for online instruction in countries like Canada and France (Perkins, 2011).

Incorporating online courses into higher education curricula poses new challenges beyond the rather obvious technological ones. Delivering education via online course offerings has significant different characteristics that the respective administrators and scholars must consider. First, universities have to revise their concept about the relevant market when offering online courses. Since the market reach of online courses is not geographically restricted, the competitive environment is likely to differ. Moreover, means of differentiating educational offerings (e.g. brand/reputation of the school) might not have the same effect as in the realms of offline course offerings. Additionally, the audience of online courses and/or their expectations regarding the characteristics of the delivered education is likely to differ from those in a traditional educational setting.

A major factor contributing to the value and the marketability of online course offerings is going to be the quality of the respective online course offerings. This is the focus of the study at hand which identifies relevant parameters affecting students' perception of quality in online course offerings.

BACKGROUND

Quality in distance education, especially the subset of distance education employing online delivery, is a widely addressed topic (e.g. see Clark, 1994; Russell, 1999; Ryan, 2000; Johnson, 2001; Dziuban & Moskal, 2001). However, most of the research done in the area focuses on the question whether or not distance education differs from traditional classroom education with regard to the learning outcome of the involved students (Dell, Low & Wilker, 2010; Stachar & Newman, 2010)). In a comprehensive review of studies on distance education Russell (1999) concludes that there is no significant difference between learning outcomes in conjunction with distance education as compared to traditional classroom settings. While Russell's (1999) review included only a few studies specifically looking at online class delivery, other studies focusing exclusively on the web-based versus in-person delivery models report similar evidence for a lack of significant difference in learning outcomes under the two models (e.g. see Davies & Mendenhall, 1998; Dominguez & Ridley, 1999; Gagne & Shepherd, 2001; Tucker, S. 2001).

Work by Stachar and Neuman (2010) on a meta-analysis of the comparison between distance learning and traditional learning suggested that students in distance learning outperformed their comparison group completing traditional format courses. In contrast with the previous mentioned analysis Dell, Low & Wilker (2010) found there was not difference in performance between online student performance and face to face student performance and that instructional methods were more important than delivery platform.

The present study differs from this line of research in that it assumes that both delivery models (web-based and in-person) potentially result in virtually the same learning outcomes. Based on this assumption, this study investigates another important line of inquiry which is concerned with factors other than the mode of delivery which potentially influence student learning. Some of the studies aforementioned have indicated that student satisfaction may be one of these factors. Work by Eom, Wen and Ashill (2006) found that timely and meaningful instructional feedback along with visual and read/write learning styles were tied to learning outcomes for online course delivery. Other studies have identified factors that lead to students perceptions of online course quality (Yang & Durrington, 2010). They indicated the key factors to online course quality were: peer-interactions, feedback from instructors, and online course structure. Indeed, the potential relationship between student satisfaction and learning outcomes is certainly a very interesting topic for research. However, in order to better understand the potential relationship between student satisfaction and learning outcomes, the authors argue it is necessary to better understand the antecedents of students' satisfaction. Besides yielding a better theoretical framework for

exploring the potential relationship between satisfaction and learning, an inquiry into the antecedents of students' satisfaction with the online learning environment offers added benefits for university instructors and administrators. It provides them with a better understanding of how to manage the online learning environment in a time when competition in the online learning segment is increasing and when the notion, of the student as the customer of the learning institution, gains ground.

With regard to the objectives of this research project, it is necessary to initially clarify what the concept "quality" represents. In a rather general formulation Juran (Juran, Godfrey, & Hoogstoel, 1999) defined quality as meaning freedom of deficiencies – freedom from errors that require rework, customer dissatisfaction, customer claims, etc. This "zero deficiency" view is rather product oriented and is based on the notion that respective deficiencies are attributes that can be determined objectively. However, it would be rather difficult to measure deficiencies objectively in the context of higher education. In this context it is deemed logical that only the recipient can really assess the quality of the received education, thereby making its measurement more subjective than exact (Lim & Tang, 2000). Since this paper is ultimately concerned with the concept of quality in the context of higher education, an inquiry into how this term found its way into the realms of higher education should help to identify a more appropriate definition of quality.

Evaluating quality of course offerings in higher education is a relatively new development. In fact it is a perspective that is significantly influenced by the likewise relatively new notion of higher education as a service that is offered to the student, who in turn may be viewed as the educational customer. Higher education indeed possesses all the characteristics of a service industry: "educational services are intangible, heterogeneous, and inseparable from the person delivering it, variable, perishable and the customer (student) participates in the process" (Shank, Matthew, Walker, & Hayes, 1995; Cuthbert, 1996).

Even with regard to service, the literature offers a variety of definitions for the concept of quality. In the context of education Whitaker and Moses (Whitaker & Moses, 1994) assert that being quality minded means "caring about the goals, needs, desires and interests of customers and making sure they are met" (1994). This notion corresponds to the underlying idea that is put forward in the majority of definitions of service quality presented in the literature. Bergman and Klefsjo, (1994) defined quality as the ability to satisfy the needs and expectations of the customer. The various definitions of service quality generally revolve around the way in which the specific service is delivered meets, exceeds or falls short of the expectations of customers (Babakus & Boiler, 1992; Bolton & Drew, 1991; Boulding, Williams, Kalra, Staelin, & Zeithaml, 1993; Brown & Swartz, 1989; Lewis & Mitchell, 1990). Thus, it is legitimate to conclude that customer expectations are the foundation of perceived service quality.

In measuring customer satisfaction, a multitude of approaches have been used. A research instrument that has received wide recognition in the literature is called SERVQUAL. This instrument, developed by Parasuraman, Zeithaml, & Berry, (1985), asks respondents to complete a series of questions which measure their expectations of a particular service provider on a wide array of specific service issues. Subsequently they are asked to record perception of that service provider on the same issues. When the rating for perceived service quality is lower than the indicated expectation for the respective criteria, this is interpreted as an indicator of low quality.

Long, Rangecroft and Tricker, (1999) have applied the concept underlying the SERVQUAL instrument in the context of higher education, more precisely with regard to distance education provisions in higher education. They based their approach on a variation of the service template developed by Staughton and Williams (Staughton & Williams, 1994). The authors modified the generic approach by Staughton and Williams to meet the requirements of measuring perceived service quality with regard to distance education courses. The instrument is designed to visualize any gaps between the student's requirements regarding a particular feature of the distance education course and their perception of the course quality. The extent of existing gaps can subsequently be used to identify and prioritize the actions required to improve the match between what students are looking for in a course offering and what they receive resulting in improvements of the perceived quality of the course offering (Long, Rangecroft and

Tricker, 2000). Long, Rangecroft and Tricker (2000) also identified criteria that are relevant with regard to the evaluation of quality in the context of distance education offerings. Their study was very distinct.

Due to the distinctness of this previous study an exploratory study was devised in order to solicit relevant parameter and then compare those with those criteria identified by Long, Rangecroft and Tricker (2000).

EXPLORATORY STUDY

The purpose of this study of students completing online classes was to identify the relevant criteria related to the perceived quality of online courses at an AACSB (The Association to Advance Collegiate Schools of Business) accredited College of Business, located at a medium sized Midwestern University. An adoption of the criteria identified in other research studies did not seem adequate mainly for two reasons. First, other studies described in the literature had a broader and/or different focus than the study at hand. For example, the original template project of Long, Rangecroft and Tricker (2000) was concerned with the requirements of distance education students in general, while this study focuses on the needs of students studying in online classes. Secondly, it was deemed appropriate to assume that the expectations and the need structure of students at the College of Business vary significantly from those students examined in other studies.

The Nominal Group Technique developed by Delbecq and Van den Ven (Delbecq, Van den Ven & Gustafson 1975) was used for this study. The Nominal Group Technique has many advantages, including independent idea generation, increased attendance to each idea and the increased opportunity for each individual to assure that his or her ideas are part of the group's frame of reference and finally the independent mathematical judgment (Delbecq, Van den Ven & Gustafson 1975). This last aspect was of special interest for this exploratory study since it was necessary to narrow down the list of important criteria to a manageable number.

The group of participants in the exploratory study consisted of ten people, six male and four female participants. In order to ensure that the results of the nominal group technique are of high relevance to both undergraduate and graduate students and to facilitate the generation of a variety of pertinent aspects, five graduate and five undergraduate students were included in the session. Prerequisite of all participating students was that they had completed at least one online course at the College of Business prior to the time of the exploratory study. Most of the participants, however, had previously completed two or more online courses at the College of Business.

The result of the Nominal Group session was a list of 27 aspects that the students involved in the session deemed important for their satisfaction with the quality of an online course (please see Table 1 for the list). This list of aspects subsequently was compared to the findings documented in the literature and constituted the basis for the creation of the questionnaire.

The mathematical judgment at the end of the Nominal Group Technique was especially helpful in identifying a list of the overall most important criteria. Since the number of criteria that can be queried in the actual survey was deemed to be limited to a total number of about fifteen, the results from the Nominal Group Technique helped to narrow the list to those of most relevance. The criteria in Table 1 above are listed in the order ranked most important to least important by students participating in the nominal group technique session (the phrasing is based on the students' suggestions).

Some of the cited criteria are virtually indistinguishable from those that one would expect to solicit with regard to a regular in class course (e.g. comprehensive/timely feedback, applicability to the outside reality, or not so much busy work), whereas others are specific to the delivery medium (e.g. ease of navigation, account for time differences, or standard technology). In general, issues specific to the mode of delivery (ease of navigation, clear assignments/instructions) and those regarding the communication link to the instructor (accessibility of instructor, timely feedback, instructor notes to supplement) seem to be of particular interest. Interestingly, it was noted that the students felt a class should qualify for delivery via the online medium based on class content. Informal conversation during and after the nominal group

technique session underlined the widely shared notion in the group that the content of some courses lends itself better to the delivery via the online medium than the content of other courses.

TABLE 3
LIST OF ASPECTS DEEMED RELEVANT FOR THE QUALITY OF AN ONLINE COURSE;
LISTED IN ORDER OF IMPORTANCE

■	Easy to navigate/well organized site
■	Clear assignments/instructions
■	Accessibility of instructor
■	Class should qualify for online course
■	Timely feedback
■	Instructor notes to supplement
■	Not so much busy work/ worthwhile assignments
■	Calendar with everything mapped out
■	24/7 accessibility
■	Up-front information
■	Up-to-date grade book
■	Flexibility/adaptability
■	Comprehensive feedback
■	Learn more than if I just read the textbook
■	Same requirements as in-class course
■	Picture of Professor
■	No campus presence required
■	No group work
■	Applicable to outside reality
■	Account for time differences
■	Interaction
■	Clear evaluation criteria
■	Realistic expectations about group work
■	Variety of media
■	Familiarity with classmates
■	Standard technology
■	Knowing beforehand who is the professor

RESEARCH OBJECTIVES AND HYPOTHESIS

The primary objective of this research project was to examine the expectations and satisfaction of online classes at the College of Business, thereby piloting an assessment instrument that measures the quality of service offering based on a gap analysis of students stated expectations and their experienced satisfaction. In addition to identifying potential gaps in the quality of online course offerings at the College of Business, it was furthermore the aim to pilot a way of prioritizing how shortcomings should be addressed.

A secondary objective of the research was to verify and validate the criteria identified in the nominal group technique session, by participating students, as important determinants of perceived quality of an online course. The research hypothesis centers on the fifteen dimensions surveyed in the questionnaire that correspond to the identified criteria. These dimensions are the independent variables whose combined effect determines the value of the overall satisfaction (dependent variable). The corresponding hypotheses for the study were formulated as follows:

H₁: The criteria queried in the online quality questionnaire are strong indicators of students' overall satisfaction with an online course

Furthermore this research project investigated the effect of grade expectation on the overall satisfaction with the online course. The assumption is these two factors are positively correlated; meaning that a high grade expectation results in a relatively higher overall satisfaction with the online course, all other factors being constant, and vice-versa. If this hypothesis holds true, the effect of the grade expectation must be considered when examining hypothesis H₁. A corresponding hypothesis may be stated as follows:

H₂: The level of overall satisfaction with the quality of an online course differs among students with different grade expectations

SAMPLE

The final version of the questionnaire was made available to the participants of eight online courses taught in the College of Business during the spring semester. Table 2 below contains the list of online classes in which the invitation to participate in the survey was disseminated. The online courses that were surveyed were eight medium and upper level business online courses.

**TABLE 4
LIST OF THE TYPE OF ONLINE COURSE SURVEYED**

Course Title
Economic Problems & Policy
Financial Management
Principles of Marketing
Advertising & Promotion
Internet Marketing
Law & Economics
Business Ethics

Course instructors disseminated the URL of the online survey to their students who accessed the survey online. Integrity of results was encouraged by posting the survey website on the College of Business server along with selective dissemination of information about the survey by the instructors of the respective courses. Students completed the survey anonymously.

Of the 260 students studying in the online courses, 96 students responded to the survey, which constitutes a response rate of 37 percent. Since convenience sampling was employed, resulting in a non-probability sample, generalizations have to be made with caution.

Due to the size limitations of the survey instrument, the authors selected the fifteen most relevant criteria for the quality of an online experience from the results of the exploratory study and the findings of the Rangecroft et al. study. Table 3 illustrates the choice of criteria used as independent variables. The overall satisfaction with the online course offering serves as the dependent variable. In addition to these items, the survey included items probing the academic class classification of the course in which the students were enrolled at the time of the survey, their experience with online classes, their academic standing, and their grade expectation for the course they evaluated. For each of the dependent and independent variables, the students were able to indicate a score ranging from 1 (least satisfactory) to 10 (most satisfactory). Grade expectations were recorded on a conventional scale ranging from A to F.

RESULTS AND DISCUSSION

The data was analyzed using the Statistical Package for the Social Sciences (SPSS) software program. The results are described in the ensuing section.

Demographic Data

The majority of the respondents to the survey were in a later stage of their college career. Sixty three percent were seniors and another 31 percent were juniors. Other students who provided a response were sophomores. A small percentage of students did not provide their grade level. These results were certainly not unexpected, since the majority of the online courses in which the information about the survey was disseminated were three- and four-hundred-level classes which are typically taken by students in more advanced stage of their university education.

With regard to the students' previous experience with online classes, a more diverse picture emerged. Almost 45 percent of the respondents indicated they had experience with either one or two online courses in their university education including the course they were enrolled in at the time of the study (about 19 percent had experience with one online course at the time of the survey and about 26 percent had experience with two online courses). While none of the respondents of the survey indicated they had experience with three online classes, about 35 percent said they had experience with four or more online courses (twelve percent had four online courses at the time of the survey and about 22 percent even had five online courses).

The responses with regard to the students' grade expectations for the online course that they were enrolled in at the time of the survey convey a clear picture: About 95 percent of the students indicated that they expect either an A or a B in the respective online course (about 54 percent of the students expected an A, while about 41 percent expected a B in the online course). Only about five percent of the respondents indicated that they expect either a C or a D in the online courses they were currently undertaking. This strong trend towards positive grade expectations posed severe limitations towards the analysis of a correlation between grade expectation and overall evaluation of the course quality.

Descriptive Statistics

The results of the first half of the survey indicate the level of expectations the students have with regard to each of the dimensions surveyed. Table 3 below shows the mean score on a scale from one to

TABLE 5
MEAN SCORES OF THE EXPECTATIONS FOR THE INDIVIDUAL DIMENSIONS

1. The course (website) is 24/7 available	8.6250
2. Understandability of the instructions/assignments	8.4167
3. Ease of navigation on the (course) website	8.1354
4. The agenda of the course clearly mapped out	8.1042
5. Relevance of assignments	7.7500
6. Timeliness of the grade book	7.6947
7. The course content is up-to-date	7.5000
8. No presence is required	7.4688
9. Instructor's notes supplement the other course content	7.4479
10. Timeliness of the feedback	7.3750
11. Instructor accessibility	7.3125
12. Comprehensiveness of the feedback	7.2604
13. No group work requirement	7.2292
14. In the class I can learn more than from the textbook	6.6458
15. The instructor facilitates student interaction	5.2917

nine. A value of nine represents an item that students view most relevant, while a value of one indicates an item that has very little or no relevance for the students for all dimensions ranked according to the level of expectations associated with them.

For all dimensions but the last two, a mean score of greater than seven on a nine-point scale was derived. The high expectations for the majority of the dimensions surveyed in the study indicate that these dimensions indeed are highly relevant for students' satisfaction with the quality of an online class.

Test of the Hypotheses

H1: The criteria queried in the online quality questionnaire are strong indicators of students' overall satisfaction with an online course

To test the relationship of the criteria included in the questionnaire with the stated overall satisfaction with the online course quality, a multivariate regression analysis was performed. The multivariate analysis allows for the simultaneous analysis of the effect of two or more independent variables on a single dependent variable. The fifteen dimensions questioned in the survey constituted the regressors in this analysis. They constituted the independent variables which are believed to have an effect on the students' overall satisfaction with the quality of the online course offering as the dependent variable. The regression was a rather good fit ($R^2_{adj} = 67.7\%$), and the overall relationship was significant ($F_{15,79} = 14.145, p < 0.05$). The output of the regression analysis is available in Appendix A.

Appendix A

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854(a)	.729	.677	.99262

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	209.047	15	13.936	14.145	.000(a)
	Residual	77.838	79	.985		
	Total	286.884	94			

Results of the analysis confirm the hypothesis that the fifteen independent variables have a significant effect on the students' overall satisfaction with the quality of the online course.

H2: The level of overall satisfaction with the quality of an online course differs among students with different grade expectations

The second hypothesis stated that students' grade expectations have an effect on the perceived overall satisfaction level. This hypothesis was tested using ANOVA analysis which compared the mean scores for overall satisfaction with the respective online course among those students that expect to receive an A, B or C (none of the respondents indicated that they expect a letter grade lower than C in their respective online course) in the course. The ANOVA computation of SPSS presented an F-value of 13.071. (For further details of the analysis please see appendix B.

**APPENDIX B
COMPARISONS OF GRADE EXPECTATIONS**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	62.935	2	31.468	13.071	.000
Within Groups	221.486	92	2.407		
Total	284.421	94			

Tukey HSD

(I) Grade expected in the online course.	(J) Grade expected in the online course.	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	.26241	.32946	.706	-.5224	1.0473
	3	3.42908(*)	.67266	.000	1.8267	5.0315
2	1	-.26241	.32946	.706	-1.0473	.5224
	3	3.16667(*)	.67717	.000	1.5535	4.7798
3	1	-3.42908(*)	.67266	.000	-5.0315	-1.8267
	2	-3.16667(*)	.67717	.000	-4.7798	-1.5535

	Grade expected in the online course.	N	Subset for alpha = .05	
			1	2
Tukey HSD(a,b)	3	6	4.166	
			7	
	2	42		7.3333
	1	47		7.5957
	Sig.		1.000	.894

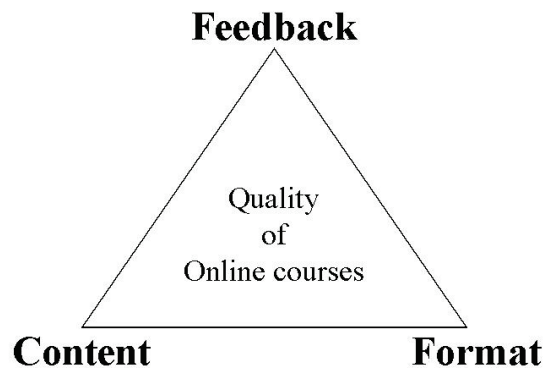
As the critical F-value at an α -level of 0.05 for the given degrees of freedom (two for the numerator and 92 for the denominator) the F-value would fall between 3.15 (for 2 degrees of freedom in the numerator and 60 degrees of freedom in the denominator) and 3.07 (for 2 degrees of freedom in the numerator and 120 degrees of freedom in the denominator). Thus, the results support H2 and we conclude that grade expectation indeed influences students' overall satisfaction with the online course offering.

A subsequent post hoc test of the means provides a clearer picture. The result of this analysis indicate that the mean for stated overall satisfaction level of those students with a grade expectation lower than B differ significantly from the overall satisfaction level of those students expecting an A or B in their respective online course. However, no significant difference means for the overall satisfaction of students that expect an A or a B can be observed. Thus, the data suggest that the expectation of a grade below a certain threshold (presumably a B) has an effect on the experienced overall satisfaction with an online course.

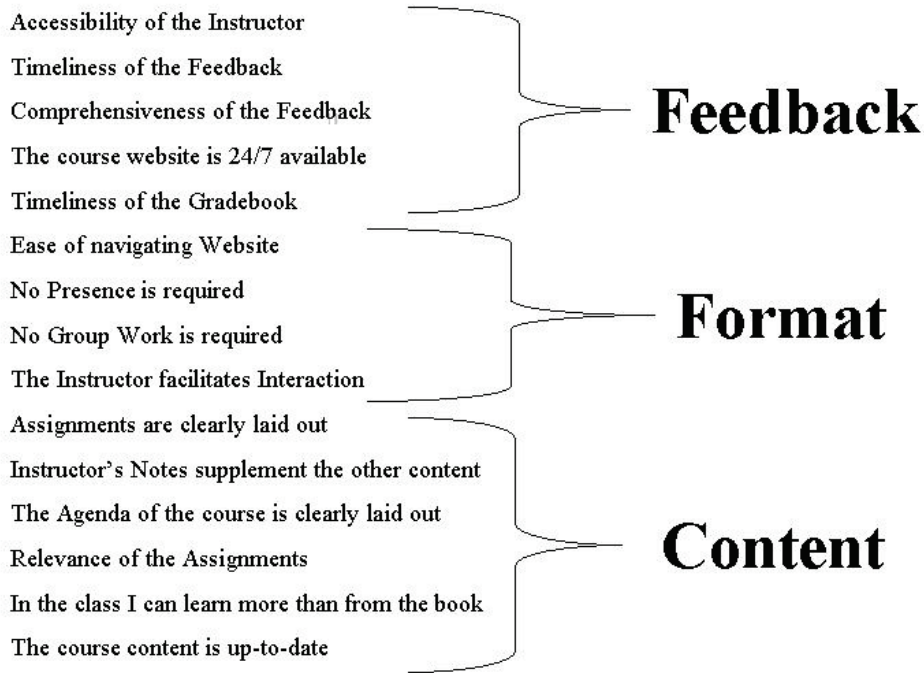
CONCLUSION

The research study has shown that the identified aspects deemed relevant for the quality of an online course are strong indicators of student satisfaction with online course offerings, thus the need to focus on the quality of such teaching delivery. Abstracting from these individual criteria, we conclude that three dimensions of an online course determine its perceived quality as indicated by the students. Students appear to judge the quality of an online course based on how user-friendly the format is, how well organized and adequate the content is and how well the feedback mechanism meets their personal information/feedback requirements. Figure 1 below illustrates this graphically and the subsequent figure (figure 2) clarifies which individual criteria have been subsumed under the three dimensions.

**FIGURE 1
THREE DIMENSIONS OF QUALITY IN ONLINE COURSES**



**FIGURE 2
FORMATION OF THREE DIMENSIONS OF QUALITY**



IMPLICATIONS

The presented research provides the administrators and instructors of online courses with insights about the dimensions of online courses most relevant to the satisfaction of students. In order to serve their virtual customer well, it has to be ensured that online courses offerings are geared to meet students' requirements with regard to Content, Format and Feedback. Results of this study provide online instructors specific criteria in each of these dimensions that can be useful in designing online courses that will meet student expectations.

The initial dimension identified in this study was content, which consists of (1) assignments are clearly laid out, (2) instructor's notes supplement other course content, (3) the agenda of the course is clearly laid out, (4) relevance of the assignments is clear, (5) the student can learn more from taking this course than they could just from reading the textbook, and (6) the course content is up to date.

Related to the dimension of format, the following are relevant, (1) ease of navigating course website, (2) no physical presence is ever required of the student, (3) no group work is required for the course, and (4) the instructor facilitates interaction.

Related to feedback, instructors need to focus on (1) their accessibility (making sure they facilitate ease of communication between faculty and student), (2) timeliness of feedback to students (students expect quick feedback on evaluation of assignments and tests), (3) comprehensiveness of the feedback, (4) the course is available any time of the day or week, and (5) timeliness of the grade book.

Faculty may conclude that many of the dimensions of evaluated quality of online courses are just an extension of quality dimensions of any course. That is likely true, yet it is more relevant to online courses because of the delivery methods of online courses versus face to face courses. The online course does not provide the course participant with the opportunity to interact with the faculty before, during or after a traditional face to face delivery of a course. Many times the personality of the faculty, as seen by the student, may translate into a favorable evaluation of a course by a student. The evaluation of the course may be synonymous with the evaluation of the instructor. This close personal interaction is more difficult to achieve with online delivered courses. The evaluation of the courses stands alone, with no benefit of face to face interaction between faculty and student. Instructors of online courses need to pay very close attention to the dimensions of content, format, and feedback.

LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The research at hand is limited in scale and scope. To further validate the results and conclusions, this research should be repeated with a greater sample size drawn from a variety of institutions. Furthermore, the results should not be viewed as representative for all possible online students. Rather the research study presented here dealt with the needs of traditional college students taking online courses at their respective institution.

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