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Which classroom service encounters make students happy or unhappy?

Insights from an online CIT study

Abstract

Purpose – This paper explores satisfactory and dissatisfactory student-professor encounters in higher education from a student’s perspective. The critical incident technique (CIT) is used to categorise positive and negative student-professor interactions and to reveal quality dimensions of professors.

Design/methodology/approach – An exploratory study using an online application of the well established CIT method was conducted. The study took place at a large European university. 96 students took part in the study on a voluntary basis and reported 164 incidents. Respondents were aged between 19 and 24 years ($X=23.2$) and slightly more female students (52%) filled in the online CIT questionnaire than male students (48%). On average, every student provided 1.7 incidents.

Findings – The results of the critical incident sorting process support previous classification systems that used three major groups to thoroughly represent the domain of (un)satisfactory student-professor encounters. The results of the CIT study also revealed 10 quality dimensions of professors, corroborating previous research in this area.

Research limitations/implications – Due to the exploratory nature of the study and the scope and size of its student sample, the results outlined are tentative in nature. The research study also only investigates the experiences of one stakeholder group.

Practical implications – Gaining knowledge of students’ classroom experiences should be beneficial for professors to design their teaching programmes. Based on the results, universities might consider the introduction of student contracts or student satisfaction guarantees to manage student expectations effectively.

Originality/value – The study was the first to successfully apply an online version of the CIT techniques to the issue of higher education services. This study shows that the CIT method is a useful tool for exploring student-professor encounters in higher education. The paper has hopefully opened up an area of research and methodology that could reap considerable further benefits for researchers interested in this area.

Keywords – Service quality, Higher education, Critical incident technique

Paper type – Research paper

Which classroom service encounters make students happy or unhappy?

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Introduction

Increasingly, higher education institutions are realising that higher education could be regarded as a business-like service industry. (Davis and Swanson 2001; DeShields *et al.* 2005). In this regard, Frankel and Swanson (2002) point to the similarities between education and services in their delivery and evaluation processes. Further, Eagle and Brennan (2007) describe higher education as a complex service and for Hennig-Thurau *et al.* (2001, p. 332), educational services “fall into the field of services marketing”. The latter, however, also maintain that educational services differ from other professional services in the following ways: Educational services play an important role in the students’ lives and they have to show motivation and intellectual skills to attain their goals. Likewise, Cooper (2007) stresses that educational success depends on the efforts of *both* parties involved namely students and universities as service providers. Both groups may also be affected significantly by quality uncertainty and informational asymmetry. Moreover, students have to be willing to take responsibility for their own education and cannot merely consume the service offered (Svensson and Wood, 2007). Consequently, this paper does *not* regard students as customers but as partners (Clayson and Haley, 2005). Students “are one of a set of partners” (Clayson and Haley, 2005, p. 6) and universities should advance the interests of *all* stakeholders involved, i.e. students, faculty, teaching staff, parents, government, and society in general. Nevertheless, as “partners” or “co-creators of value” (Vargo and Lusch, 2004; 2006), students can expect to receive a beneficial learning experience in general and valuable student-professor encounters in particular.

Similar to a service encounter, the interaction between students and professors in a classroom is a form of human behaviour that is limited in scope, and that has clear roles for the participating actors who pursue a purpose (Czepiel *et al.*, 1986). Moreover, educational services can be described by several service characteristics: Each student has his/her unique demands and needs and makes his/her own experiences. Educational services are also predominately intangible, heterogeneous, and perishable in nature. Further, the professor's teaching efforts are simultaneously "produced" and "consumed" with both professor and student being part of the teaching experience (Shank *et al.* 1995). Thus, findings from the services literature should be applicable to the context of higher education in general and to the student-professor encounter in particular.

This paper investigates the nature of quality in higher education and focuses on exploring satisfactory and dissatisfactory student-professor encounters from a student's perspective. The paper begins by reviewing the literature on quality in higher education services and the important role of professors. It then describes a study that uses an online version of the critical incident technique (Flanagan, 1954) to categorise positive and negative student-professor encounters, to reveal quality dimensions of professors, and examine which attributes of professors are likely to cause satisfaction and which dimensions predominately lead to dissatisfaction. The paper concludes then with a summary of findings and suggestions for further research.

Quality in higher education services

According to Harvey and Green (1993), quality in higher education is a multifaceted and complex concept and a single appropriate definition of quality is lacking. Thus, consensus concerning "the best way to define and measure service quality" (Clewes, 2003, p. 71) is not existing. Following a learning-oriented approach, quality is recently often interpreted as the transformation of students (e.g. Srikanthan and Dalrymple, 2007; Harvey and Knight, 1996)

with the aim of students' transcendental self-development (Gibbs, 2008). Every stakeholder in higher education (e.g. students, government, professional bodies), however, views quality differently, depending on their specific needs and wants. This paper is only concerned with one particular stakeholder in higher education, students.

In the services literature, the focus is on perceived quality, which results from the comparison of service expectations with perceptions of actual performance (Zeithaml *et al.*, 1990). Applied to the context of higher education, O'Neill and Palmer (2004, p. 42) defined service quality as "the difference between what a student expects to receive and his/her perceptions of actual delivery". Browne *et al.* (1998) and Guolla (1999) pointed out that students' perceived service quality is an antecedent to student satisfaction.

Positive perceptions of service quality can result in student satisfaction and satisfied students may help attract new students through engaging in positive word-of-mouth communication and may return themselves to the university to take further courses (Guolla, 1999; Wiers-Jenssen *et al.*, 2002; Mavondo *et al.*, 2004; Schertzer and Schertzer, 2004; Marzo-Navarro *et al.*, 2005ab; Helgesen and Nettet, 2007). Previous research by Guolla (1999) already indicated that course satisfaction is positively related to learning. Finally, Elliott and Shin (2002) showed that student satisfaction has also a positive impact on fundraising and student motivation. For professors to create satisfaction, however, they need to know what their students expect and experience (Davis and Swanson, 2001), which stresses again the importance of investigating student perceptions of classroom encounters.

The crucial role of professors

Oldfield and Baron (2000) identified higher education as a "pure" service and stressed the importance of the quality of personal contacts. Based on these findings, the underlying assumption of this paper is that for students, the qualities and behaviours of professors have a significant impact on their perceptions of service quality. This assumption can be supported

by several research findings in the services literature. For example, Hartline and Ferrell (1996) maintained that the attitudes and behaviours and of frontline employees have a strong impact on the customers' perceptions of service quality. Studies also point to important role the human interaction element plays in determining whether the delivered service is considered satisfactory (Chebat and Kollias, 2000). Finally, Bitner *et al.* (1994) showed that the nature of the interpersonal interaction between the customer and the contact employee often affects services satisfaction.

In the context of higher education, findings by authors by authors such as Harnash-Glezer and Meyer (1991) and Hill *et al.* (2003) also stressed the importance of teaching staff and reported that the quality of the professor belongs to the most important factors in the provision of high quality education. Finally, Pozo-Munoz *et al.* (2000) and Marzo-Navarro *et al.* (2005c) posited that teaching staff are main actors in a university exercising the largest positive influence on student satisfaction. Thus, the behaviours and attitudes of professors should be the primary determinant of students' perceptions of service quality in higher education. Knowing more about student experiences may enable professors to adapt their attitudes and behaviour to their students' underlying needs, which should positively influence students' perceived service quality and their satisfaction levels.

Service quality in higher education – The student's perspective

Oldfield and Baron (2000) believed that there exists a tendency to investigate service quality in higher education from an organizational perspective. Instead of collecting data based upon what universities believe their students regard as important, institutions should instead focus on what their students really want. Likewise, Joseph *et al.* (2005) pointed to the heavy reliance of service quality in higher education researchers on the input from academic insiders while excluding the input from the students themselves. They feared that conventional approaches would leave "decisions about what constitutes quality of service (e.g. such as

deciding what is ‘most important’ to students) exclusively in the hands of administrators and/or academics” (p. 67). Joseph *et al.* (2005) therefore suggested that academic administrators should concentrate on recognising student needs. Similarly, Rowley (1997, p.11) believed that researchers should try to reveal the most important quality dimensions from a student’s point of view as these dimensions are “most likely to have an impact on their overall satisfaction”.

Aim of the study

On the basis of these findings, this paper focuses on the service quality elements in higher education that students themselves regard as important. Given the need for more research on classroom service encounters (Swanson and Frankel, 2002), the research study will be exploratory in nature. To be more specific, the research study uses a semi-standardized qualitative technique, the critical incident technique, as O’Neill and Palmer (2004, p. 41) suggest that qualitative methods “provide an interesting insight into the mindset of individual students”. The major aim of this paper is to explore satisfactory and dissatisfactory student-professor encounters that students experienced. These experiences may improve or weaken the student’s learning experience. Knowing what students regard as satisfactory and dissatisfactory student-professor interactions helps professors improve the classroom experience by e.g. changing course policy or improving interpersonal skills or by just having a better understanding of the student’s perspective (Davis and Swanson, 2001). The collected student-professor incidents will be categorised and quality dimensions of professors will be developed by especially examining which of the attributes of professors are likely to cause dissatisfaction and which predominately lead to satisfaction. Knowing what attributes of professors are desired by students may improve the overall education process (Faranda and Clarke, 2004). The following section describes the qualitative research method used in the study in more detail and explains its appropriateness.

Methodology – The critical incident technique

Flanagan (1954) describes the critical incident technique (CIT) as “a procedure for gathering certain important facts concerning behaviour in defined situations” (p. 335). CIT has been used across a wide range of disciplines and in recent years, it has been used extensively in the service literature to explore sources of satisfaction and dissatisfaction in service interaction situations in a variety of contexts (Roos, 2002; Gremler, 2004). In this context, Gremler (2004, p. 77) points out that “the CIT method has been accepted as an appropriate method for use in service research”.

In the higher education literature, researchers have used CIT to investigate (dis)satisfactory professor/student interactions (Swanson and Davis, 2000; Davis and Swanson, 2001; Frankel and Swanson, 2002; Swanson and Frankel, 2002; and Swanson *et al.*, 2005). These authors developed a classification scheme that shows strong similarities to the system developed by service marketing authors such as Bitner *et al.* (1990, 1994).

CIT is a powerful qualitative research method to collect, analyse, and classify observations of human behaviour that allows researchers to gain valuable insights into phenomena that have not been documented well (Gremler, 2004). It helps reveal perceptions of quality and sources of satisfaction/dissatisfaction based on negative and positive incidents (Edvardsson and Roos, 2001). In this context, a critical incident can be described as any observable human activity that deviates significantly from what is the normal or expected (Flanagan 1954) and that contributes significantly, either positively or negatively, to the phenomenon or activity under study (Bitner *et al.*, 1990). These incidents determine whether an individual leaves a situation satisfied or dissatisfied. Gremler (2004) points out that researchers using CIT are not required to follow a strict set of principles but can use a flexible set of rules that can be adapted to the particular research situation. Thus, in the context of this study, a critical incident is described as either a positive or a negative interaction between a

professor and a student during a lecture that is particularly memorable to the student and that leads to either a positive or negative disconfirmation of student expectations.

For a CIT study, respondents are asked to recall positive and/or negative incidents relating to the specific experience being studied. CIT reflects the normal way that people think as respondents can tell a story using their own words without being forced into a pre-existing framework (Stauss and Weinlich, 1997). The collected accounts provide researchers with “rich details of firsthand experiences” (Bitner *et al.* 1994, p. 97). Researchers do not have to develop hypotheses before using CIT as concepts and theories will emerge from the identified patterns in the responses of participants. Thus, CIT is a qualitative research method that is used “primarily for theory development” (Grempler, 2004, p. 77). In this context, Bitner *et al.* (1990, p. 73) maintain that CIT enables researchers “to increase knowledge of a phenomenon about which relatively little has been documented and/or to describe a real-world phenomenon based on a thorough understanding”.

The research study – Collecting CIT data online

Researchers can collect CIT data in several ways. Traditionally, researchers conduct interviews or hand out questionnaires. More recently, the CIT method has also been conducted online using web-based CIT questionnaires (Meuter *et al.*, 2000; Warden *et al.*, 2003). This approach has several benefits: Researchers do not have to tape and transcribe CIT interviews or questionnaires as the collected data are already in electronic form. Further, the whole interviewing process may be less stressful and more convenient for respondents as they can fill in the CIT questionnaire either at home or at work in a familiar and non-threatening environment (Wood *et al.*, 2004). Moreover, Edvardsson and Strandvik (2000, p. 83) criticize the traditional CIT method for collecting “top-of-the mind memories of service interactions that are socially acceptable to report”. An online approach can address this concern effectively as the anonymous online situation means that participants are not influenced by an

interviewers' appearance, tone of voice and body language as they could be during CIT interviews. Thus, social desirability bias and especially interviewer/interviewee bias should not occur (Miller and Dickson, 2001; Gunter *et al.*, 2002; Duffy *et al.*, 2005). Further, according to Joinson (2001) and Hanna *et al.* (2005), respondents are also willing to reveal more personal information and deeper feelings in computer-mediated communication than in traditional face-to-face discussions due to visual anonymity and higher levels of private self-awareness. As respondents are also less inhibited online, they are willing to state their opinions more directly than in a traditional interviewing environment (Tse, 1999; Pincott and Branthwaite, 2000; Sweet, 2001). On the basis of these findings, it was decided to collect the CIT data using an online CIT questionnaire.

Data collection

The address of the website hosting the CIT online questionnaire was mentioned in five business and economics education courses with a total of 322 postgraduate students at a large European university. The researchers who carried out the study are affiliated with different universities and had no previous contacts to the students. During the five courses, access codes (e.g. "51122") were handed out to each student that they had to type in on the first online screen to start the CIT study. These access codes were necessary to make sure that only students of this particular university would fill in the questionnaire and to prevent "random walk-ins" by individuals who were not part of the population of interest but who discovered the website by chance (Meuter *et al.*, 2000). The access codes also made sure that every student filled in the questionnaire only once. The online questionnaire began by asking respondents to give details regarding age, gender, and course of study.

As mentioned, the main purpose for our study was to record student-professor interactions in the lecture theatre or seminar room that deviated from what they expected in either a positive or negative way. These incidents had to be memorable enough to be recalled. Thus,

students had to think of a specific situation in which they were extremely satisfied or dissatisfied with the teaching experience and the professor. In particular, students were asked the following questions, which were based on the questions used Bitner et al's (1990) CIT study:

- Briefly describe the incident,
- When and where did the incident happen?
- What was done or said during the interaction?
- What resulted that made you feel extremely satisfied or dissatisfied with the professor in the particular situation?

For each question, students could type in their answers in a large textbox. It was decided to ask students to think of both positive and negative critical incidents as Gremler (2004) reports that the majority of CIT studies collect a mix of both incident groups. Respondents could describe up to three positive and/or negative incidents using their own words.

As the incidents may have taken place up a long time before data collection, respondent's perceptions may have been reinterpreted or modified (Johnston, 1995). We addressed this concern by asking respondents to recall incidents within the last 6 months following recommendations by authors such as Keaveney (1995) and Sweeney and Lapp (2004). Figure 1 presents a screenshot from the study that shows both the CIT questions and the available textboxes for respondents to answer.

Take in Figure 1

Respondents were then asked several quantitative questions to gain a better understanding of the relevance of the incidents and the subsequent student behaviour. Firstly, respondents could rate the severity of the incident, which we measured with a five-point Likert scale that

run from 1 (incident was not important) to 5 (incident was very important). We also wanted to know if respondents had told anyone about the incident and if yes who that person(s) was (were). Finally, respondents who reported about the incident were asked whether they engaged in positive or negative word-of-mouth communication.

Data analysis

Characteristics of sample

Out of the 332 business and economics education students, 96 students took part in the study on a voluntary basis, which equals a response rate of 29%. These respondents reported 164 incidents. Respondents were aged between 19 and 24 years ($X=23.2$) and slightly more female students (52%) filled in the online CIT questionnaire than male students (48%). There are no clear rules regarding the minimum number of respondents and reported incidents to collect: Gremler (2004) notes that the number of respondents varies significantly, ranging from 9 to 3852. Similarly, he states that the number of usable critical incidents ranged from 22 to 2505. Lockwood (1994) suggests that CIT studies should involve at least 100 incidents as this sample size would allow researchers to develop reliable categories. Thus, the sample size of this research study is sufficiently large enough and also comparable to earlier exploratory CIT studies (Sweeney and Lapp, 2004). Each student provided between one and four incidents with an average of 1.7 incidents.

Classification of incidents

For researchers to uncover emerging themes or patterns, the collected CIT data have to be interpreted and incidents have to be sorted into groups with similar topics (Keaveney, 1995; Stauss and Weinlich, 1997). According to Bitner *et al.* (1990, p. 74), the main goal of the necessary content analysis is to make the data “useful for answering the research questions while sacrificing as little detail and comprehensiveness as possible”. By classifying and

categorising single incidents into a more general schema, a certain level of abstraction can be reached that is required for further analysis. The incident classification system used for categorising the collected incidents is based on the scheme used in studies by authors such as Swanson and Davis (2000). This classification system was chosen as it offers a useful framework for examining interactions experienced by students that may positively or negatively influence their learning experience. Further, the classification scheme proved to be reliable and valid for investigating the issue of satisfaction/dissatisfaction in a university setting. Finally, a recent study by Swanson *et al.* (2005) also showed that the classification scheme can be generalised to an international context.

The critical incidents were then further analysed to reveal crucial quality dimensions of professors. Following Johnston's (1995) approach, each incident was numbered and condensed using several keywords and phrases that summed up the student's experience. Two sets of cards were used, one for the descriptions of positive incidents and one for the anecdotes of negative incidents. These incident summaries were then classified using the list of quality dimensions identified by authors such as Anderson (2000), Sander *et al.* (2000), Lammers and Murphy (2002), Hill *et al.* (2003), Brown (2004), Swanson *et al.* (2005), and Voss and Gruber (2006).

Assessing reliability

As the classification procedure is largely subjective, it was decided to have two researchers familiar with the classification scheme to act as judges and to code the incidents independently. Incidents were read and sorted until similar incidents were assigned to distinct, meaningful categories. Sorting continued until incidents in one category were more similar to each other than they were to incidents in another category. Disagreements between the judges were discussed and resolved mutually.

The reliability of the coding procedure was assessed in two ways. Firstly, intrajudge reliability, which measures how consistent a coder assigns incidents to a particular category over time (Weber, 1985), was examined by coding the 164 incidents two times over a two months period. Intrajudge exceeded the 80% cutoff suggested by Weber (1985) and was 94%. Secondly, interjudge reliability, which is the degree to which both judges agree that an incident should be classified into a particular category, was measured by calculating Cohen's Kappa (Cohen, 1960). Cohen's K is a conservative reliability statistic that corrects for the likelihood of a coincidental agreement between judges (Bitner *et al.*, 1994) and was found to be .82 for the satisfying and .83 for the dissatisfying incidents.

In general, interjudge reliabilities above .80 are considered to be satisfactory (Ronan and Latham, 1974; Bitner *et al.* 1990; Keaveney, 1995). Landis and Koch (1977) suggest that a Kappa higher than .6 should be regarded as acceptable and Gremler (2004) reports that the average of the Kappa mentioned in previous CIT studies is .745. Thus, the Kappa of our research study indicates a high level of interjudge reliability.

Results and discussion

Classification of incidents

The sorting process confirms the three major groups suggested by Swanson and Davis (2000) that accounts for all satisfactory and dissatisfactory incidents. The fact that no new categories emerged during the sorting and classification process can be considered as a very good indicator for high content validity of the applied critical incident classification system (Keaveney, 1995). Together with the described intrajudge and interjudge reliabilities, we can be confident that the classification scheme accurately represents the domain of (un)satisfactory student-professor encounters. The following three incident categories were confirmed:

- Group 1: Professor response to service delivery system failures

This category includes incidents that are directed linked to failures in the core services that students would expect to receive. Typical incidents are delayed services, professors who are not available during office hours, who refuse to answer student questions, and who come late to a scheduled meeting with a student. Professors who do not explain why these incidents occur tend to create dissatisfaction, while thorough explanations are likely to lead to satisfactory student recollections.

- Group 2: Professor response to students needs and requests

Students sometimes have special requests or desire specific outcomes that suit their needs. The requests could for example be the result of a student mistake such as missing an exam or a preference for a certain type of assessment (e.g. 100% exam instead of 80% exam and 20% group assignment). Flexibility on the part of the professor would be a potential source of student satisfaction, while unwillingness to accommodate students could e.g. cause dissatisfaction.

- Group 3: Unprompted and unsolicited professor action

This category comprises incidents that students do not normally expect from professors but that were memorable either in a positive or a negative way. Possible sources of satisfaction are professors who demonstrate enthusiasm and/or are perceived to be fair. Typical dissatisfactory incidents relate to professors who are unable to control their temper, impatient with students, and who are rude.

The distribution of incidents across the three incident groups is illustrated in table 1.

Take in Table 1

Out of the 164 answers, more were relating to negative (95) than to positive incidents (69). By far the largest number of both satisfactory and dissatisfactory incidents were categorized in Group 3, with the next largest proportion falling into Group 2 followed then by Group 1. This distribution of incidents corroborates previous work by Swanson and Davis (2000) and Davis and Swanson (2001). Illustrative quotes for each category are given in table 2.

Take in Table 2

Respondents could also rate the importance of the incident. Students regarded 78.1% of the reported incidents as either important or very important (categories four and five of the Likert scale). There were no significant differences between positive and negative incidents. This result is not surprising as the CIT method particularly asks respondents to recall incidents that they regard as critical.

Students were then asked if they told anyone about the incident and engaged in word-of-mouth communication: 55.1% of the positive incidents but 75.8% of the negative incidents were reported. This result supports previous research that found that dissatisfied individuals are generally believed to engage in considerably greater WOM than satisfied individuals (Richins, 1983; Schlossberg, 1991). The following table shows to whom respondents reported their experienced incidents (multiple answers were permitted).

Take in Table 3

As table 3 reveals, for both positive and negative incidents, respondents informed mainly fellow students, followed by friends and parents.

Quality dimensions of professors

Most CIT studies focus predominately on the categories that emerge after content analysis and their characteristics (Meuter *et al.*, 2000). As mentioned, this study, however, classifies incidents not only into distinct categories but also explores which quality dimensions of professors are referred to in the incidents. Based on the analysis of the incident summaries, 10 attributes were classified, which are presented with definitions in table 4.

Take in Table 4

Table 5 shows the relative frequency of positive and negative incidents for each quality dimension. For example, 16 positive incidents referred to the helpfulness of the professor (64%), whereas this attribute was mentioned in only 9 negative incidents (36%). The most frequently mentioned quality dimension for both positive and negative incidents is “teaching skills”, which supports findings by Sander *et al.* (2000) who stressed the importance of this attribute of good teaching staff. While respondents particularly pointed out the helpfulness, openness and enthusiasm of professors in the positive incidents, they mainly stressed the lack of friendliness and fairness in the negative incidents.

Take in Table 5

Two attributes of professors were only mentioned in negative incidents: expertise and reliability. Thus, students either only remembered situations in which professors showed a remarkable lack of competence or were particularly unreliable or they just have not experienced professors with outstanding competence and reliability yet. All the other quality dimensions were mentioned in both satisfying and dissatisfying incidents to varying degrees as the following figure illustrates. Illustrative quotes for each professor attribute are shown in table 6.

Take in Figure 2

Take in Table 6

Our findings are similar to previous research that indicated the importance of these attributes of professors (e.g. Feldmann, 1976; Braskamp *et al.*, 1981; Patrick and Smart, 1998; Willcoxson, 1998; O'Toole *et al.*, 2000; Desai *et al.*, 2001). In particular, Swanson *et al.* (2005) found that professors should be knowledgeable, empathetic, friendly, helpful, reliable, responsive, and expressive. Similarly, Mersha and Adlakha (1992, p. 39) suggest that the professor's "willingness to correct errors, knowledgeability, thoroughness/accuracy of service and consistency/reliability" are the most important attributes of good service quality for colleges/universities. By contrast, reluctance to correct errors, lack of knowledge, indifference or 'I don't care' attitude and rudeness" were mentioned as the most important indicators of poor service quality. Faranda and Clarke (2004) stressed the importance of personality factors such as approachability, friendliness, being receptive to student suggestions, sense of humor, and enthusiasm. Hill *et al.* (2003) reported that students want professors to be knowledgeable, well-organized, encouraging, helpful, sympathetic, and caring to students' individual needs. Students at the beginning of their university life wanted professors to be approachable, to have good teaching skills, to be knowledgeable, enthusiastic, and organized (Sander *et al.*, 2000). Lammers and Murphy (2002) pointed out that students regard professors highly who are knowledgeable, enthusiastic about their subject, inspiring, and helpful. Andreson (2000) found that students want professors to be enthusiastic, caring, and interested in the students' progress. Research by Brown (2004) and Voss *et al.* (2007) indicated that competent professors know their subject, are approachable, and are willing to answer questions. They should also show flexibility and willing to explain things in different ways, and to treat their students as individuals. Further, McElwee and Redman (1993) pointed out that reliability is a factor that significantly impacts on students' perceptions of service performance. Professors

should turn up to classes on time and keep records of student performance. Empathy is also an attribute of teaching staff that authors like Elton (1996) found to be of importance to students. Finally, the important role of expertise supports findings by authors like, for example, Ramsden (1991), Husbands (1998), Patrick and Smart (1998), and Pozo-Munoz *et al.* (2000) who also stressed the importance of this quality dimension.

Limitations and directions for further research

Like all research studies, this project has several limitations as well. First of all, as the critical incident technique is a qualitative research method, the findings presented here are only tentative in nature and are not meant to be generalisable (Meuter *et al.*, 2000). The findings, however, provide a first valuable insight into the nature of the phenomenon under investigation – the analysis of satisfying and dissatisfying incidents in higher education and the development of quality dimensions of professors. Further research studies, however, should improve knowledge of this topic.

As the research study involved postgraduate students from one university, the results cannot be generalized to the student population as a whole. We are aware that we only had access to one group of students (business and economics education students) at one university. However, it has to be said that the potential for generalizability can never be achieved in any one study, but is an empirical question that requires comparisons over different studies (Greenberg, 1987). Thus, what is now needed is similar research with different sample populations. Results from these studies could then be compared and differences and similarities revealed.

Researchers interested in the measurement of service quality in higher education should also take the perspectives of other stakeholders (e.g., students' families, the government) into consideration as well (Rowley, 1997). Thus, fellow researchers could investigate the (deviations of) expectations of other stakeholder groups. Further research, for example, could

investigate whether student expectations differ greatly from what professors believe students want. In the services literature, Mattila and Enz (2002) reported a large gap between customer and employee perceptions regarding service quality expectations. Thus, fellow researchers could hand out CIT questionnaires to both students and their professors or ask both parties to fill in a online questionnaire. Researchers could then compare the results to highlight different views. Insights gained should help make professors aware of differing perceptions and identify areas for appropriate training. In the context of service quality in higher education, first research results already indicate that a perception gap exists (Swanson and Frankel, 2002). Further, Shank *et al.* (1995) found that service delivery expectations are lower among professors than among their students.

Further research could also explore gender differences with regard to student-professor interactions in the lecture theatre or seminar room that deviate from what they expect in either a positive or negative way. Previous consumer research studies have already identified differences between male and female information processing and decision-making styles (e.g. Iacobucci and Ostrom 1993). Iacobucci & Ostrom (1993), however, also propose that gender differences in expectations exist only in the short-term and would be evened out in the long-term, i.e. men and women would expect the same things from the service provider (core and relational aspects) instead of women prioritizing more relational aspects and men focusing more on the core aspects of service delivery. Thus, it would be interesting to carry out a longitudinal study to explore whether gender differences truly exist long-term or if they are just a short-term phenomenon.

Implications and Conclusions

This paper explored the online application of the established critical incident technique to investigate student-professor encounters in higher education. 96 students were asked to think about deviations of expectations and to recall positive and negative interactions with

professors. Based on the collected data, satisfactory and dissatisfactory incidents were categorised and quality dimensions of professors were revealed. The results of the critical incident sorting process support the classification system previously developed by Swanson and Davis (2000) that uses three major groups to thoroughly represent the domain of (un)satisfactory student-professor encounters. The results of the CIT study also revealed 10 quality dimensions of professors, corroborating previous research in this area.

Such knowledge of (deviations of) student expectations as a form of student feedback should also be beneficial for curriculum development (e.g. McCuddy *et al.*, 2008). Previous research (e.g. Rolfe, 2002) already indicated that students frequently criticise professors for offering courses that are too theory-laden and that do not pay sufficient attention to vocational aspects. Thus, professors who are open to suggestions and criticism (“Openness”) should cover topics in the curriculum that are beneficial for students in their preparation for their profession. Professors could for example provide assignments that are directly relevant to work, and use thought-provoking case studies from the business world. Professors could also stress linkages between theory and practice more and invite guest speakers who are eager to share valuable experiences with students.

The revealed importance of personality factors underscores the strong need for professors to maintain personal interactions with students, build strong relationships and treat students with respect. Students apparently desire professors who sustain the human interface within marketing education (Faranda and Clarke, 2004) and who get along well with them (Foote *et al.*, 2003). Fortunately, the role of creating rapport with students has been receiving increasing attention in the marketing education (e.g. Faranda and Clarke, 2004) and (services) marketing literature (e.g. Gremler and Gwinner, 2008) recently.

Universities might also consider the introduction of “student contracts” (Rowley, 1997) or “student satisfaction guarantees” (McCollough and Gremler, 1999ab; Gremler and McCollough, 2002; Lawrence and McCollough, 2004) to manage student expectations effectively. A student satisfaction guarantee, for example, could tangibilise the offered educational services and signal the quality of the educational experience to current students and also help attract new students. Previous research by McCollough and Gremler (1999a) shows that satisfaction guarantees can influence student confidence in professors positively and they help set clear expectations that both parties involved, students and professors will work hard. Satisfaction guarantees used as a pedagogical device set performance standards and help increase the accountability of *both* professors and students. They also have a positive impact on student evaluations of professors and courses without losing rigour in the classroom (Gremler and McCollough, 2002). In this connection, the CIT method helps professors identify satisfactory and dissatisfactory deviations of expectations from a student’s point of view and the satisfaction guarantee could for example cover the revealed quality dimensions of professors.

Professors could also directly ask students on the first day of the course to list everything they expect from the course and the teaching staff regarding course operation and learning outcomes. This exercise could help professors adjust unrealistic expectations and review learning objectives. At the end of term, professors could examine if the course has met the goals of the course (Appleton-Knapp and Krentler, 2006). This procedure could also be beneficial for reducing the probability of students experiencing dissatisfactory student-professor encounters.

As partners or co-creators of value in higher education, students can expect to receive a good service (i.e. good quality teaching). This good service, however, should always be seen as a “means to an end” with the end being the creation of more knowledgeable and capable

individuals. Thus, professors should give students a beneficial learning experience and valuable student-professor interactions but it would not be in the interest of all stakeholders involved to allow students to dictate, for example, what grades they should receive, even if students want that (Clayson and Haley, 2005). We therefore agree with Desai et al. (2001, p. 143) who posit that professors can be more service oriented “without giving the store away”.

This study shows that the online application of the CIT method is a useful tool in examining the issue of student-professor encounters in higher education. Future research should be able to develop further studies to test the online application of the CIT method in their investigations of higher education services.

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Figure 1. Screenshot of online CIT questions

Fragebogen zum Befinden in der Hochschule :: 2. Ereignis im Rahmen einer Lehrveranstaltung - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Print Mail News RSS

Address: http://unifrage.studenzufriedenheit.de/index.php

Fragebogen zum Befinden in der Hochschule
0% 100%

2. Ereignis im Rahmen einer Lehrveranstaltung

Denken Sie bitte an ein besonders zufriedenstellendes oder unzufriedenstellendes Ereignis im Rahmen einer Lehrveranstaltung oder beim sonstigen Umgang mit einem Hochschuldozenten bzw. einer Hochschuldozentin in diesem Semester.

Beschreiben Sie diese Situation kurz!

Wann und wo ist dieses Ereignis passiert?

Was wurde in diesem Zusammenhang genau gesagt oder getan?

Warum waren Sie in dieser Situation so besonders zufrieden oder unzufrieden mit dem Lehrpersonal?

Done Internet

Figure 2. Continuum of quality dimensions of professors

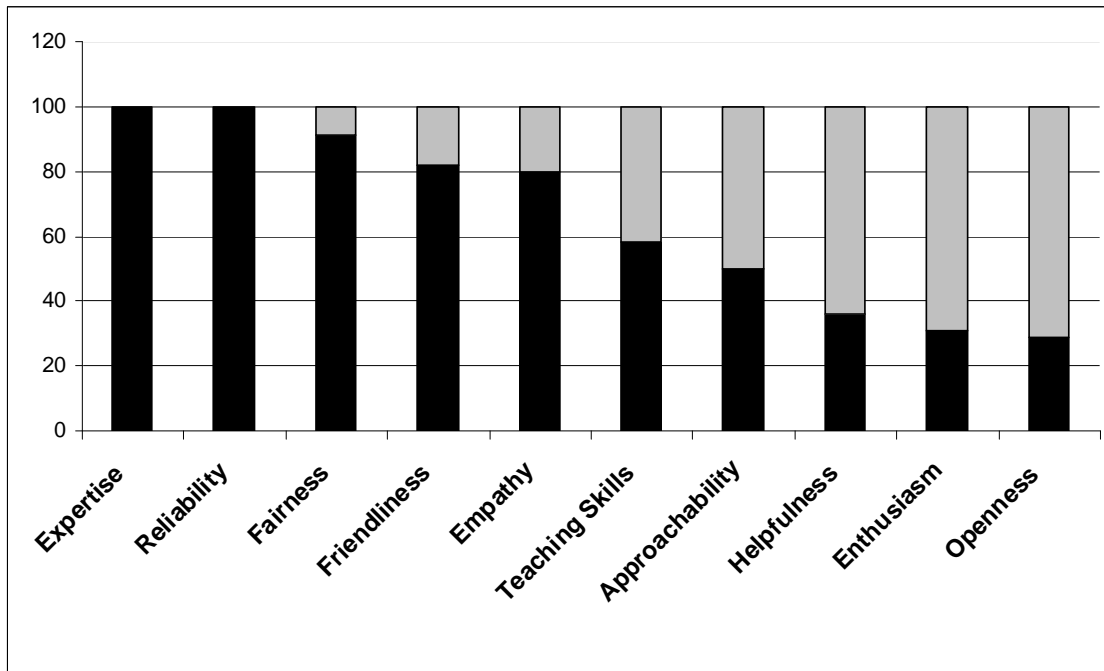


Table 1. Classification by type of incident outcome

Group	Positive	%	Negative	%	Row	Total%
Group 1: Professor response to service delivery system failures	12	17.3	18	19.0	30	18.3
Group 2: Professor response to students needs and requests	23	33.3	25	25.5	48	29.3
Group 3: Unprompted and unsolicited professor action	34	49.4	52	56.5	86	52.4
Column total	69	42.1	95	57.9	164	100.0

Table 2. Illustrative quotes for critical incident groups

Group	Positive Incident	Negative Incident
Group 1: Professor response to service delivery system failures	<i>The professor obviously couldn't explain the topic clearly enough for us to understand it but he immediately agreed to offer additional tutorials (Student #81, female)</i>	<i>We had questions concerning a test question. Professor XY couldn't answer them. He said he may have to come back to us next week. Uh. (Student #72, female)</i>
Group 2: Professor response to students needs and requests	<i>I missed the bus and consequently the last seminar before the exam as well. Fortunately, the professor was so kind to answer the questions I had via email (Student #88, male)</i>	<i>We had to take an exam and we asked the professor to re-schedule a seminar that clashed with our exam but the professor refused to do so. (Student #27, male)</i>
Group 3: Unprompted and unsolicited professor action	<i>A professor offered four seminars/lectures each with an hour-long mock exam as a preparation for a four-hour long exam in five weeks time. She marked this mock exam and gave us feedback within a week which was great (Student #41, female)</i>	<i>A fellow student gave a presentation and was told afterwards by the professor that the size of the gob has nothing to do with the quality of the brain (Student #50, male)</i>

Table 3. Receiver of word-of-mouth communication

Group	Positive	%	Negative	%	Row	Total%
Fellow students	25	54.3	51	47.7	76	49.7
Friends	12	26.1	28	26.2	40	26.1
Parents	5	10.9	20	18.7	25	16.3
Others	4	8.7	8	7.4	12	7.9
Colum total	46	30.1	107	69.9	153	100.0

Table 4. Definitions of quality dimensions

Quality Dimension	Definition
Approachability	This item refers to the professors willingness to take time for their students during and after lessons
Empathy	This dimension addresses the professor's willing to take the student's perspective and their ability to identify with and understanding of the student's situation, feelings, and motives
Enthusiasm	Enthusiastic professors transmit excitement and interest for their subject
Expertise	This refers to the competence, skill and professionalism of the professor
Fairness	This dimension means that professors are free from favouritism, self-interest, or preference in judgment
Friendliness	This attribute is associated with nonverbal signals like open body posture, forward body lean, and casual smiling
Helpfulness/ Attentiveness	This quality dimension describes the professor's ability to provide useful assistance during and after class and his/her willingness to provide feedback.
Openness	This dimension means that professors are readily acceptable and open to new ideas, suggestions, criticism, and questions during class
Reliability	This quality dimension covers issues such as consistency of performance, the ability to keep agreements made with students and that professors arrive on time for a lecture and their office hours
Teaching skills	This attribute describes the ability of professors to select appropriate course contents and give their lessons a logical structure

Table 5. Frequency of positive and negative incidents

Quality Dimension	Positive	%	Negative	%	Row	Total%
Approachability	2	50,0	2	50.0	4	2.4
Empathy	2	20.0	8	80.0	10	6.1
Enthusiasm	10	71.5	4	28.5	14	8.5
Expertise	0	0,0	8	100.0	8	4.9
Fairness	1	9.1	10	90.9	11	6.7
Friendliness	4	18.2	18	81.8	22	13.4
Helpfulness	16	64.0	9	36.0	25	15.2
Openness	15	71.5	6	28.5	21	12.9
Reliability	0	0.0	4	100.0	4	2.5
Teaching Skills	19	42.2	26	57.8	45	27.4
Column total	69	42.1	95	57.9	164	100.0

Table 6. Examples for quality dimensions of professors

Quality Dimension	Positive Incident	Negative Incident
Approachability	<i>XXX is always approachable. On Friday, I saw him in the corridor and talked some minutes about my thesis with him. (Student #58, female)</i>	<i>He is never at the university. You just see him during class and then he's gone already. He also asks his assistants to lecture for him, this happened three times in a row recently. He shouldn't get paid for that (Student #44, male)</i>
Empathy	<i>Last week, I discussed my thesis with my supervisor and I was completely out of it. The professor noticed that and talked about trivial stuff. He said that we could talk about my thesis next week, which we actually did yesterday. Excellent! (Student #16, male)</i>	<i>Due to a family tragedy, I asked Professor XZ to give me an extension for my assignment. He showed no empathy, saying that deadlines had to be kept. (Student #47, female)</i>
Enthusiasm	<i>The professor is full of energy. He really gives it one's all. He has lots of fun teaching (Student #3, male)</i>	<i>XXX seemed indifferent last week again. He always tells us how great his research is and how many awards he has already won. Phehh. But teaching does not seem to make him any fun. Actually, I don't think that he interested in having contact to students at all. (Student #91, female)</i>
Expertise	-	<i>He had forgotten to bring all his teaching materials to the lecture. He realised that while he was setting up an equation. He was unable to solve the equation and he had to leave the lecture theatre to get his teaching materials (Student #21, male)</i>
Fairness	<i>The orals were absolutely fair, nothing was asked that hadn't been covered before (Student #29, female)</i>	<i>He always gives low marks for assignments, regardless of all the effort one puts in (Student #35, male)</i>

Student-Professor Encounters

Friendliness	<i>Professor XX is always in a good temper. Last time I went to his office hours and he offered me coffee and cake (Student #54, male)</i>	<i>He condescends. I once talked to him and there was no smile or something. You feel as if you are in a burial chamber (Student #11, female)</i>
Helpfulness/ Attentiveness	<i>I had a problem with last week's course content and asked the professor. He answered my email and helped me within two hours! (Student #8, male)</i>	<i>I wanted to ask him something after the lecture. He only said that we would not have any time. I then sent him an email with a question and he only answered that I should think about the answer myself first. (Student #19, male)</i>
Openness	<i>He had just started at the university; he rushed through his Powerpoint slides like mad. We told him about it and he reduced his speed immediately. (Student #67, male)</i>	<i>We asked XXX if he could offer more tutorials but he only said that we would know best what he was doing (Student #80, male)</i>
Reliability	-	<i>He makes an appointment for his office hour but is not there then, brilliant! (Student #66, female)</i>
Teaching Skills	<i>The lecture of professor XXZ last week had a really good structure. He also incorporated a movie and other media. (Student #1, female)</i>	<i>Everything is confused. The professor should sit down and structure his teaching a bit. Last week, he jumped from one topic to the other without explaining any linkages (Student #94, female)</i>