This item was submitted to Loughborough’s Institutional Repository (https://dspace.lboro.ac.uk/) by the author and is made available under the following Creative Commons Licence conditions.

You are free:

- to copy, distribute, display, and perform the work

Under the following conditions:

**Attribution.** You must attribute the work in the manner specified by the author or licensor.

**Noncommercial.** You may not use this work for commercial purposes.

**No Derivative Works.** You may not alter, transform, or build upon this work.

- For any reuse or distribution, you must make clear to others the license terms of this work.
- Any of these conditions can be waived if you get permission from the copyright holder.

Your fair use and other rights are in no way affected by the above.

This is a human-readable summary of the Legal Code (the full license).

Disclaimer ☐

For the full text of this licence, please go to: http://creativecommons.org/licenses/by-nc-nd/2.5/
ABSTRACT. Increasingly, higher education institutions are realizing that higher education could be regarded as a business-like service industry and they are beginning to focus more on meeting or even exceeding the needs of their students. Recent research findings suggest that the factors that create student satisfaction with teaching (“teaching satisfiers”) may be qualitatively differently from the factors that create dissatisfaction with teaching. Thus, this research uses the Kano Methodology to reveal the characteristics of professors that students take for granted (“Must-be factors”) and that have the potential to delight them (“Excitement factors”). Kano questionnaires containing nineteen attributes of effective professors taken from previous studies and focus group discussions were handed out in two marketing courses to 63 postgraduate students enrolled in a service marketing course. The Kano results corroborate previous US findings that revealed the importance of personality in general and support studies that stress the importance of professors creating rapport with their students in particular.
INTRODUCTION AND BACKGROUND

Increasingly, higher education institutions are realizing that higher education could be regarded as a business-like service industry and they are beginning to focus more on meeting or even exceeding the needs of their students. Watson (2003) and Narasimhan (2001) for example maintain that fee-paying students expect “value for money” and behave more like customers. As students are increasingly seen as customers of higher education services (e.g. Arambewela et al., 2005; Maringe, 2005), their satisfaction should be important to institutions that want to retain existing and recruit new students (Helgesen & Nesse, 2007). Study results indicate that the recruitment of students is several times more expensive than their retention (Joseph et al., 2005). Universities should therefore try to monitor students’ levels of satisfaction and decrease sources of dissatisfaction if possible in order to retain students (Douglas et al., 2008). Similarly, Appleton-Knapp & Krentler (2006) suggest that students’ satisfaction with their educational experience should be a desired outcome, in addition to learning and knowing what attributes of professors are desired by students, may improve the overall education process (Faranda & Clarke, 2004).

Given the need for more research on classroom service encounters (Swanson & Frankel, 2002), this research study is exploratory in nature. This paper explores how students perceive the attributes of professors and how satisfied they are with them. In particular, the research examines which attributes of professors are likely to cause satisfaction and which dimensions predominately lead to dissatisfaction. Knowing what students regard as satisfactory and dissatisfactory attributes helps professors improve the classroom experience either by improving interpersonal skills or by just having a better understanding of the student’s perspective (Davis & Swanson, 2001). Similarly, Desai et al. (2001, p. 136) suggest that “the more faculty members
know about students, the better they can provide educational services to them”. Gained insights can then be used to be more responsive to students during student-professor encounters without compromising integrity.

We begin by reviewing the literature on higher education as a service and service quality and satisfaction in higher education. We then describe the important role of professors in general and the characteristics of effective professors in particular. A research study that uses the well established Kano Model of Satisfaction to reveal the preferred attributes of professors is explained in the following section. The paper concludes with a summary of findings and suggestions for further research in this area.

**CHARACTERISTICS OF HIGHER EDUCATION SERVICES**

According to authors such as Angell et al. (2008), Curran & Rosen (2006), Arambewela et al. (2005), DeShields et al. (2005), Davis & Swanson (2001) and Desai et al. (2001), higher education can be regarded as a service and Frankel & Swanson (2002) point to the similarities between education and services in their delivery and evaluation processes. Further, Eagle & 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”.

This paper focuses on the encounter between students and professors in class. This interaction, which is similar to a service encounter, is a form of human behavior 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 demands and needs and makes his/her own experiences. Educational services are also predominately intangible and 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. Moreover, Iyer & Muncy (2008) have recently used concepts from services marketing research to investigate services failures within a classroom setting. Following Hemsley-Brown & Oplatka (2006), we believe there is a demand for more research that explores the application of services marketing concepts within the context of higher education.

There are, however, differences between educational services and other services that have to be taken into consideration: Educational services play an important role in the students’ lives and they have to make an active contribution to their own learning experience by showing motivation and intellectual skills to attain their goals (Hennig-Thurau et al., 2001). Likewise, Cooper (2007) for example stresses that educational success depends on the efforts of both parties involved, namely students and professors, as service providers. Both groups may also be affected significantly by quality uncertainty and informational asymmetry. Consequently, this paper does not regard students as customers but as partners (Clayson & Haley, 2005). Moreover, in contrast to several other services (e.g. staying in hotels, eating in restaurants, or travelling on planes, trains and buses), students must be willing to take responsibility for their own education and cannot merely consume the service offered (Svensson & Wood, 2007). Nevertheless, as “partners” or “co-creators of value” (Vargo & Lusch, 2004; 2006), students can expect to receive a valuable learning experience in general and good teaching quality in particular.

**SERVICE QUALITY AND SATISFACTION IN HIGHER EDUCATION**

According to Harvey & 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) does not
exist. Every stakeholder in higher education (e.g. students, government and professional bodies) views quality differently, depending on their specific interests. In the services literature, the focus is on customers’ perceived quality, which results from the comparison of their service expectations with their perceptions of actual performance (Zeithaml et al., 1990). Applied to the context of higher education, O’Neill & 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.

Several satisfaction definitions exist in the services and consumer marketing literatures. Following Oliver (1999), satisfaction can be defined as pleasurable fulfillment, which means that consumers perceive that “consumption fulfils some need, desire, goal, or so forth and that this fulfillment is pleasurable. Thus, satisfaction is the consumer’s sense that consumption provides outcomes against a standard of pleasure versus displeasure.” (Oliver, 1999, p. 34). While the satisfaction concept has also been extended recently to the context of higher education, the amount of research is still limited. Previous findings suggest that student satisfaction is a complex concept, consisting of several dimensions (e.g. Marzo-Navarro et al., 2005ab; Richardson, 2005). By referring to Oliver & DeSarbo’s (1989) definition of satisfaction, Elliott & Shin, (2002, p. 198), describe student satisfaction as “the favourability of a student’s subjective evaluation of the various outcomes and experiences associated with education. Student satisfaction is being shaped continually by repeated experiences in campus life”.

Current research findings reveal that satisfied students may attract new students by engaging in positive word-of-mouth communication to inform acquaintances and friends and they may return to the university to take other courses (Guolla, 1999; Wiers-Jenssen et al., 2002; Mavondo et al., 2004; Schertzer & Schertzer, 2004; Marzo-Navarro et al., 2005ab; Helgesen & Nesset,
2007). Previous research by Guolla (1999) indicated that course satisfaction is positively related to learning. Finally, Elliott & Shin (2002) showed that student satisfaction has also a positive impact on fundraising and student motivation.

**THE IMPORTANT ROLE OF PROFESSORS**

Previous research studies by authors such as Harnash-Glezer & Meyer (1991) and Hill et al. (2003) stressed the importance of teaching staff and reported that the quality of the professor belongs among the most important factors in the provision of high-quality education. Similarly, 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 behaviors and attitudes of professors should be primary determinants of students’ satisfaction in higher education.

**Characteristics of Effective Professors**

Several authors (e.g. Desai et al., 2001; Paswan & Young, 2002; Smart et al., 2003) have recently investigated the main characteristics of effective professors. Typical attributes mentioned frequently are communication skills, enthusiasm, empathy, rapport and use of real-life examples in class. Table 1 gives an overview of some previous findings.
Personality/Likeability of Professors

Several studies point to the importance of the personality of the instructor (e.g. Clayson, 1999; Curran & Rosen, 2006). For example, Clayson & Haley (1990) found that the personality of the professor is the strongest determinant of the final evaluation of the professor’s teaching effectiveness. The authors suggested calling the investigated evaluation measurement a “likeability scale”. Using structural equation modeling, Marks (2000) revealed a similar strong impact of liking/concern on the evaluation of the instructor. More recently, Clayson & Sheffet (2006) also found a positive and consistent relationship between personality measures and course and instructor evaluations. Their results indicate that students associate instructional effectiveness with perceived personality and student evaluations of teaching (SET) are therefore “largely a measure of student-perceived personality” (Clayson & Sheffet, 2006, p. 158). Further findings suggest that for students, excellent teaching seems to have more to do with who professors are than what they do or know or what efforts students themselves show (Delucchi, 2000; Moore & Kuol, 2007). The fact that the professor’s personality explains between 50 and 80% of the total variance in evaluations could also be why several studies have shown that experienced professors do not show improvements in teaching effectiveness as personality changes only minimally over time (Clayson, 1999).

TAKING THE STUDENT’S PERSPECTIVE

Oldfield & Baron (2000, p. 86) suggest that institutions should pay better attention to what their students want instead of collecting “data based upon what the institution perceives its students find important”. Similarly, Joseph et al. (2005) point out that traditional approaches leave “decisions about what constitutes quality of service (e.g. such as deciding what is ‘most
CHARACTERISTICS OF EFFECTIVE PROFESSORS

important’ to students) exclusively in the hands of administrators and/or academics” (p. 67).

Joseph et al., therefore, suggest that academic administrators should focus on understanding the
needs of their students, who are the specific and primary target audience. Similarly, Douglas &
Douglas (2006, p. 6) suggest that the student experience and its improvement “should be at the
forefront of any monitoring of higher education quality”.

In order to understand students’ needs, universities can collect feedback from them.

According to Leckey & Neill (2001), student feedback plays a major role in delivering quality in
higher education institutions. Student feedback can be defined as the

expressed opinions of students about the service they receive as students. This may include
perceptions about the learning and teaching, the learning support facilities (such as libraries,
computing facilities), the learning environment (lecture rooms, laboratories, social space and
university buildings), support facilities (refectories, student accommodation, health facilities,
student services) and external aspects of being a student (such as finance, transport
infrastructure (Harvey, 2003, p. 3).

According to Harvey (2003), student feedback helps prospective students (and also parents)
obtain information about the institution so that they can decide which programme or course unit
to choose or where to study (see also Richardson, 2005; Williams & Cappuccini-Ansfield, 2007).

A common practice to collect student feedback from students is the use of satisfaction

We decided to use an established measurement tool (i.e. Kano questionnaire) as it allowed us
to measure students’ satisfaction with the quality attributes of their professors. The attributes for
the Kano questionnaire were taken from previous research studies on service quality in higher
education (e.g. Voss et al., 2007) and several focus group discussions with students. This student
input was necessary as researchers should identify the quality dimensions that are the most
important to students as they are “most likely to have an impact on their overall satisfaction” (Rowley, 1997, p.11). The following section describes the chosen measurement tool in detail.

**THE KANO METHODOLOGY**

Moore & Kuol (2007) suggest that the factors that create student satisfaction with teaching (“teaching satisfiers”) may be qualitatively differently from the factors that create dissatisfaction with teaching. Thus, this research uses a technique that can reveal the factors that create satisfaction as well as the attributes than can cause dissatisfaction.

Previous research by authors such as Cadotte & Turgeon (1988) and Johnston & Heineke (1998) indicates that some characteristics of services are likely to cause dissatisfaction while others predominately lead to satisfaction. Cadotte & Turgeon, for example, found in a hotel context that the factors that were linked with dissatisfaction (customers complained to the hotel) differed from the attributes that created satisfaction (customers made compliments). Recent research in the services and customer satisfaction/dissatisfaction literature suggests that attributes of products, services and individuals can be classified into four categories, which all affect customer (dis-)satisfaction differently (e.g. Löfgren & Witell, 2008; Matzler et al., 2004; Nilsson-Witell & Fundin, 2005). These originate from Kano’s model (1984) categorizing customer needs, which allows researchers to gain a deeper understanding of customer preferences. Over the last three decades, Kano’s (1984) model of customer satisfaction has increasingly gained acceptance and interest from both academics and practitioners (Löfgren & Witell, 2008). Early work was conducted in the area of engineering (Kano, 1984). More recently, the Kano methodology, however, has also been applied successfully to diverse domains such as e-services (Nilsson-Witell & Fundin, 2005; Witell & Löfgren, 2007), employee satisfaction (Matzler et al., 2004a),
bank services (Bhattacharyya & Rahman, 2004), internet community bonding (Szmigin & Reppel, 2004), and tourist satisfaction in Singapore (Pawitra & Tan, 2003).

The Kano methodology posits that satisfaction is a multidimensional construct consisting of the following factors: *Must-be factors* are features that individuals take for granted. The fulfillment of these requirements does not increase satisfaction. If the product or service, however, does not meet expectations, then individuals will be very dissatisfied. *One-dimensional factors* are attributes for which the relationship between attribute performance and (dis-)satisfaction is linear. The more/less an attribute fulfils the requirements, the more/less customers are satisfied. *Excitement factors* are attributes that make customers very satisfied or even delighted (Matzler et al., 2004b), if the product or service achieves these factors fully. Customers are, however, not dissatisfied if products or services do not meet these requirements. The Kano model also shows which attributes have the strongest impact on (dis-)satisfaction. This characteristic of the model is highly valuable as it reveals which attributes increase satisfaction and which attributes only meet minimum requirements (Matzler & Sauerwein, 2002). Companies can then, for example, decide for which qualities and behaviors of employees they should design effective training programs to improve their employees’ performance and/or which qualities prospective job candidates should have.

**DATA COLLECTION**

Kano questionnaires were handed out in two marketing courses to 63 postgraduate students aged between 19 and 32 years (X=23.2) and enrolled in a service marketing course at a large university in the UK. The questionnaire contained 19 attributes taken from previous research studies on service quality in higher education (e.g. Voss et al., 2007) and several focus group discussions with students. For each professor attribute in the Kano questionnaire, respondents had
to answer a question consisting of two parts: ‘How do you feel if the feature is present?’ and ‘how do you feel if the feature is not present?’ Respondents were, for example, asked “If a professor possesses good communication skills (e.g. can tailor the messages to best suit students’ language abilities and preferences), how do you feel?” (functional form of the question) and “If a professor does not possess good communication skills (e.g. cannot tailor the messages to best suit students’ language abilities and preferences), how do you feel?” (dysfunctional form of the question). For each question, respondents could then answer in five different ways: 1.) I like it that way. 2.) It must be that way. 3.) I am neutral. 4.) I can live with it that way. 5.) I dislike it that way. Figure 1 shows an example taken from the Kano questionnaire used in this study.

The attributes were then classified as must-be, one-dimensional and excitement factors using an evaluation table developed by Kano (1984). In the evaluation table, the functional and dysfunctional forms of the question were combined, leading to different categories of requirements. Beside the four main categories (indifferent, must-be, one-dimensional and excitement factors), the evaluation table also allowed the classification of requirements as either reverse or questionable. Reverse features are those that are not only not wanted by the customer but that lead to actual dissatisfaction if present (Burchill & Shen, 1993). Questionable results identify a contradiction in the customer's answer to the question (Berger et al., 1993) and commonly signify a question that was either misunderstood by the interviewee or phrased incorrectly (Matzler et al., 1996; Szmigin & Reppel, 2004). Questionable results therefore act as a form of quality control for the Kano questionnaire. In this study, no requirement led to any
questionable results according to the evaluation table. The results of the classification process were then visualized in one chart that illustrated which attributes are must-be, one-dimensional and excitement factors for students.

**RESULTS AND DISCUSSION**

The Kano map in figure 2 illustrates which attributes of professors are must-be factors that students take for granted, one-dimensional factors for which the relationship between attribute performance and (dis-)satisfaction is linear and excitement factors that delight students.

For students, five attributes are excitement factors (“Fostering of Team Work”, “Expertise in Other Subject Areas”, “Variety of Teaching Methods”, “Friendliness” and “Humour”) that have the potential to satisfy students very much. The importance of these attributes gives support to previous study findings that showed that students value a “mixing up” of lectures that bring life to the presentation, in-class interaction for them get to know their peers and discussion of topics beyond course-related material (Faranda & Clarke, 2004).

The Kano results also corroborate previous US findings that revealed the importance of personality (e.g. Clayson & Sheffet, 2006) in general and support studies that stress the importance of professors creating rapport with their students (e.g. Delucchi, 2000) in particular. Attributes such as friendliness, approachability, enthusiasm, being receptive to suggestions and humour show the highest impact on students’ satisfaction. “Humour” has the strongest impact on students’ satisfaction, which supports findings by Lantos (1997) who suggests that instructors
should use humour as a tool to motivate students. Professors, for example, could tell amusing personal stories (e.g., their shopping experience) that help humanise them. Further, they could even make unexciting course content interesting by creatively applying it to a funny or unusual situation.

The attribute “Enthusiasm” also has a strong impact on students’ satisfaction levels. In this connection, Kelly & Stanley (1999) found that enthusiasm was the most frequently chosen attribute by both female and male faculty to describe themselves and how they thought students would describe them.

Professors who stress these personality attributes may not only satisfy students but also achieve high teaching evaluation scores (Delucchi, 2000; Williams & Ceci, 1997). A more recent study by Faranda & Clarke (2004) also stressed the importance of personality factors such as approachability, friendliness, being receptive to student suggestions, sense of humour and enthusiasm. Professors should also cover “real-world” content, provide prompt feedback and act on student suggestion, all attributes that also have a strong impact on students’ satisfaction levels in our study.

By contrast, quality attributes such as “Communication Skills”, “Fairness”, ”Reliability”, “Helpfulness”, “Logical Structure of Lecture” and especially “Expertise (own subject area)” and “Respect” are all closer towards the area of must-be factors in the Kano map. In direct comparison to the “personality” factors mentioned before, students will be more dissatisfied if professors do not exhibit them (higher impact on dissatisfaction) and will also be less satisfied if they show them (lower impact on satisfaction). In particular the attribute “Respect” has the potential to dissatisfy students strongly if professors do not show respect to students. This finding corroborates with previous research by authors such as Voss et al. (2007), who showed that students want to be taken seriously and treated with respect. However, it is important to notice
that even if professors respect students, students will still be less satisfied with them in comparison to, for example, humorous or enthusiastic professors (higher impact on satisfaction).

Even though these attributes are closer to the area of must-be attributes than the personality factors, the Kano map shows that students do not take any of the professor attributes for granted.

**IMPLICATIONS AND CONCLUSIONS**

This paper examined how students perceive the attributes of professors and how satisfied they are with them. In particular, the research explored which attributes of professors are likely to cause satisfaction and which dimensions predominately lead to dissatisfaction. Knowing what students regard as satisfactory and dissatisfactory attributes can help professors improve the classroom experience for their students, by either improving interpersonal skills or by just having a better understanding of the student’s perspective (Davis & Swanson, 2001).

The Kano results stress the importance of building and maintaining good personal interactions between students and professors and professors should also try to create a rapport with their students. The revealed importance of personality factors underscores the strong need for marketing educators 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 & Clarke, 2004) and who get along well with them (Foote et al., 2003). Fortunately, the role of rapport has been receiving increasing attention in the marketing education (e.g. Faranda & Clarke, 2004) and (services) marketing literature (e.g. Gremler & Gwinner, 2008) recently.

As partners or “co-creators of value” (Vargo & Lusch, 2004; 2006) in higher education, students can expect to receive a good service (i.e. good quality teaching) but they should not
expect to be able to influence the course content. Undergraduate students especially cannot know what professors should teach them and what they have to learn (Seiler & Seiler, 2002). The concept of student satisfaction addressed in this study should therefore always be seen as a “means to an end” with the end being the transformation of students (e.g. Srikanthan and Dalrymple, 2007; Harvey and Knight, 1996), following a learning-oriented approach. For this purpose, professors should give students a very good learning experience and valuable student-professor interactions. However, it would not be in the interest of universities and the wider society to allow students for example to dictate what topics the curriculum should include or what grades they should receive, even if students want that (Clayson & 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”.

A way of increasing the universities’ perceived service orientation towards their partners or co-creators of value without allowing students to influence the curriculum or ask for good grades could be the introduction of “student contracts” (Rowley, 1997) or “student satisfaction guarantees” (McCollough & Gremler, 1999ab; Gremler & McCollough, 2002; Lawrence & McCollough, 2004). 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. Earlier research by McCollough & Gremler (1999a) showed 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 (i.e. both parties have to meet certain standards, for example with regard to reliability) and help increase the accountability of both professors and students. Previous research findings showed that guarantees have a positive
impact on student evaluations of professors and courses without losing rigour in the classroom (Gremler & McCollough, 2002).

**LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH**

This study shows that the Kano methodology helps examining the issue of students’ satisfaction with the characteristics of professors in student-professor encounters. However, as the study involved only one sample of students from one university, the results cannot be generalized to the student population in the UK as a whole. Nevertheless, the findings provide a first valuable insight into the nature of the phenomenon under investigation – the satisfaction of students with the attributes of effective professors. Further research should improve knowledge of this topic.

In the student-as-partner paradigm (Clayson & Haley, 2005), researchers interested in the measurement of service quality and satisfaction in higher education should also take the perspectives of other stakeholders (e.g., students’ families and the government) into consideration as well. Therefore, fellow researchers could investigate whether student perceptions differ greatly from what (for example) professors believe students want. In this context, first results already indicate that a perception gap exists (Swanson & Frankel, 2002). Thus, fellow researchers could hand out Kano questionnaires to both students and their professors. 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.

For some products, such as the TV remote control, Kano (2001; 2006) showed that product attributes have a life cycle meaning that excitement factors deteriorate to one-dimensional factors and then must-be factors over time. In a service context a similar life cycle exists, for example,
Nilsson-Witell & Fundin (2005) found that after using an e-service (online ordering of movie tickets) five or more times customers perceived the service as a one-dimensional or even must-be factor. Thus, taking a longitudinal approach, future research could investigate whether attributes of professors also deteriorate over time from excitement factors to one-dimensional attributes and finally to must-be factors.
REFERENCES


CHARACTERISTICS OF EFFECTIVE PROFESSORS


CHARACTERISTICS OF EFFECTIVE PROFESSORS


CHARACTERISTICS OF EFFECTIVE PROFESSORS


FIGURE 1. Example from Kano Questionnaire

<table>
<thead>
<tr>
<th>13a. If a lecturer chooses teaching methods from a variety of teaching tools (e.g. case studies, role plays etc.), how do you feel?</th>
<th>1. I like it that way</th>
<th>2. It must be that way</th>
<th>3. I am neutral</th>
<th>4. I can live with it that way</th>
<th>5. I dislike it that way</th>
</tr>
</thead>
</table>

| 13b. If a lecturer does not choose teaching methods from a variety of teaching tools (e.g. case studies, role plays etc.), how do you feel? | 1. I like it that way | 2. It must be that way | 3. I am neutral | 4. I can live with it that way | 5. I dislike it that way |
FIGURE 2. Influence of Attributes of Professors on Satisfaction and Dissatisfaction of Students
# Characteristics of Effective Professors

<table>
<thead>
<tr>
<th>Authors</th>
<th>Characteristics of Effective Professors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swanson et al. (2005)</td>
<td>knowledgeable, empathetic, friendly, helpful, reliable, responsive, and expressive</td>
</tr>
<tr>
<td>Hill et al. (2003)</td>
<td>knowledgeable, well-organized, encouraging, helpful, sympathetic, and caring to students’ individual needs</td>
</tr>
<tr>
<td>Lammers &amp; Murphy (2002)</td>
<td>knowledgeable, enthusiastic about their subject, inspiring, and helpful</td>
</tr>
<tr>
<td>Andreson (2000)</td>
<td>enthusiastic, caring, and interested in the students’ progress</td>
</tr>
<tr>
<td>Brown (2004); Voss et al. (2007)</td>
<td>competent, approachable, willing to answer questions, show flexibility and willing to explain things in different ways, treat their students as individuals.</td>
</tr>
<tr>
<td>McElwee &amp; Redman (1993)</td>
<td>reliable: turn up to classes on time and keep records of student performance</td>
</tr>
<tr>
<td>Husbands (1998); Patrick &amp; Smart (1998); Pozo-Munoz et al. (2000); Ramsden (1991)</td>
<td>Expertise</td>
</tr>
</tbody>
</table>

**TABLE 1. Characteristics of Effective Professors**