Jennifer E. Rowley Head, School of Management and Social Sciences, Edge Hill University College, Ormskirk, UK

Emphasizes the controllability of customer-to-customer interaction in the higher education environment. Argues that students' satisfaction or dissatisfaction with their experience of a university may be significantly influenced by their experience of other students. Customer compatibility management supplements other approaches to quality management, such as TQM. Tutors and managers of the educational environment have always recognized that some features of student-to-student interaction need to be managed. Borrows some concepts from the services marketing literature and proposes a more focused and comprehensive customer compatibility management programme. Uses the theatrical metaphor to illustrate the roles and functions that need to be adapted in a compatibility management programme.

Introduction

As the study of the service experience within a wide range of service environments has developed, there has been an increasing recognition that customers' satisfaction is often dependent upon their direct or indirect interactions as they share the service facility's physical environment. Customer-tocustomer interaction can either enhance or impoverish the service experience. For example, a kind word or a pleasant smile from a fellow customer may make the service experience more enjoyable, whereas rowdy and obnoxious behaviour is likely to have the opposite effect. Indeed, in educational environments such as classes and other in-campus locations, students may often view student-to-student contact as a welcome secondary objective. In addition, tutors have long recognized that student-to-student interaction can be a valuable tool in supporting effective learning.

Since customer-to-customer interaction may significantly affect customer satisfaction and thereby the likelihood of a return visit, it is important for service managers to be sensitive to customer-to-customer relationships, and the behaviours that strengthen and weaken these relationships. More specifically, tutors need to appreciate what can be done to manage or positively influence the way in which students affect one another and the mechanisms by which they can support one another's experience of higher education.

This article reviews the concepts associated with customer compatibility management. Specifically, it reviews the roles involved in customer compatibility management proposed by Pranter and Martin[1] and considers their applicability to customer compatibility management in the student learning experience in higher education.

The article takes a broad perspective on the student experience of higher education, in keeping with a total service perspective rather than focusing specifically on the learning experience in the sense of formal learning in a specifically tutor-managed environment. This perspective is regarded as appropriate since there is considerable evidence that the "ethos of the student environment" does have

an impact on student achievement (see e.g. [2]).

Customer-to-customer interaction in higher education

Student-to-student interactions may take place in higher education in a variety of different contexts, for example:

- classroom including lecture, groupwork, etc.;
- student assignments individual or group;
- coffee bar/dining room;
- library;
- social events and clubs;
- halls of residence;
- · IT workshop;
- · university shops and banks.

Clearly, in some of these instances, the student-to-student interaction may be positive because either:

- it assists the student to learn more effectively; or
- the student enjoys the social exchange for its own sake.

Potentially positive interactions include the following:

- One student helps another student to use a reference source in the library.
- Two students who are neighbours greet each other in the university shop.
- Two students who are completing separate assignments exchange views on how to complete the assignment.
- One student advises a new student on the location of the coffee bar.
- One student welcomes another student to a club or social event.
- One student watches another student use the CD-ROM and thereby learns how to operate this.
- A group of students plan an outing together.
- A group of students engage in a group assignment.

In other instances the exchange may be negative, sufficiently so that it overrides other elements of the experience that may be more than satisfactory.

Potentially *negative* interactions include the following:

International Journal of Educational Management 10/4 [1996] 15-20

© MCB University Press [ISSN 0951-354X]

International Journal of Educational Management 10/4 [1996] 15–20

- A group of students discuss their next assignment noisily in the library.
- One student has already borrowed the book required by another student.
- There is a queue for access to computers in the IT workshop.
- In a group assignment, one student does not make an adequate contribution.
- · A student is offensively dirty and smelly.
- Students are untidy in the coffee bar and leave litter
- Some students are noisy and disruptive during a lecture.
- One student plays loud music in his room until 3.00 a.m.

It is important to note that such experiences can only be classified as potentially negative or potentially positive, since the actual nature of the experience is influenced by the perception of the student.

The instinctive reaction of service providers is to assume that customer-tocustomer interactions are beyond their control and indeed, in environments such as retailing and banking where the time period during which two people might be in the service environment is relatively short, the service provider needs to focus on the student/service agent interaction. However, in many leisure and educational environments where the customer spends a longer period of time in the environment and periods of 30 minutes and up to a few hours are typical, the significance of student-to-student interaction is greater and may be more significant than the customer-to-service agent interaction.

Note, also, that there will be occasions on which, in an experience which involves student-to-student interaction, some parties may perceive the interaction to be positive while others may perceive it to be negative. To take a simple example, as one student assists another student with change for the photocopier, these two might view the experience as supportive and positive. Others waiting in the queue for the photocopier may view the delay caused by this transaction as unwarranted, and yet other customers may find the exchange distracting.

The broader perspective: customer compatibility and quality

The objective of effective customer compatibility management is an enhancement of the "service experience". In other words, appropriate management of student-to-student interaction contributes to the quality of the student's experience of higher education, and can be viewed as a component in a total quality management (TQM) process. A useful

definition of "quality of education" is offered by Gordon and Partington[3]:

The success with which an institution provides educational environments which enable students effectively to achieve workable learning goals, including appropriate academic standards.

This definition incorporates the term "educational environment"; such an environment must include the other participants.

Most higher education institutions have an implicit or explicit mission, to offer a high quality learning experience to all of their students. In seeking to enhance the quality of the total experience, a number of institutions have started to investigate approaches to quality systems. For example, Hart and Shoolbred[4] cite Wolverhampton University as seeking registration under BS 5750 and a number of other universities as taking the TQM path, including Aston, Southbank, Robert Gordons and Wolverhampton. Other contributions which describe contributions in this area include Marchese[5]. Ewell[6] and Cornesky[7]. A number of other authors cite examples of faculty or department-based implementation of TQM. For example Bolton[8] describes the implementation of TQM in the Management School of Lancaster University.

TQM is defined as managing the entire organization so that it excels in all dimensions of products and services which are important to the customers[9]. Excellence in a TQM organization is defined by customer requirements and needs. Implementation of TQM requires the creation of an organization-wide structural system that allows all members of the organization to participate in planning and implementing continuous improvement in all aspects of its operations. TQM is a people-centred approach to management[10]:

TQM is about people within the organization and people outside. It is about people within the organization working to their full potential, resulting in increased customer satisfaction outside the organization.

The main elements of TQM as summarized by Taylor and Hill[11,12] are:

- the conceptualization of quality as customers' perceptions;
- the notion of internal as well as external customers;
- the concentration on prevention to eliminate waste, reduce costs and achieve error free processes;
- evaluation of internal products either by the immediate customer or preferably by the preceding processor;

International Journal of Educational Management 10/4 [1996] 15–20

In TQM, the customer's requirements drive the pursuit for improved quality. In customer capability management, the customer is encouraged to participate in the continual improvement process, not only by providing feedback on their requirements, but also by offering mutual support to other customers.

- the idea of continuous self-improvement, classifying TQM organizations as learning systems;
- the need for timely measures of, and feedback on, performance through superior quality information systems and measures of the cost of non-conformance;
- the involvement and commitment of all employees in quality matters and continuous organizational improvement.

Lin[13] identifies two distinct contexts in which TQM can be implemented in higher education: administration, and the classroom. In the context of administration, TQM must emphasize the fact that improving the system is part of the job description of all employees and academic staff, and not just administration. The administrator's role is to create an environment in which staff, individually or in teams, can do their best. They need to be involved in TQM as participants, coaches, facilitators, communicators, dismantlers of barriers and impediments. In the context of TQM in the classroom, Lin proposes the use of the TQM concept "quality at source". Each worker is responsible for passing good quality down the line to succeeding operations. Translated into higher education terms, each member of academic staff is responsible for ensuring that students leaving their course "conform to requirements". The essence of TQM is showing people the vision, providing them with the tools, resources and feedback, and then getting out of their way and letting them do their jobs.

While both are very distinctly people and indeed customer oriented, the gulf between TQM and customer compatibility management rests with the role of the customer. In TQM, the customer's requirements drive the pursuit for improved quality. In customer capability management, the customer is encouraged to participate in the continual improvement process, not only by providing feedback on their requirements, but also by offering mutual support to other customers. This is particularly important in any service environment where customers spend an extended period of time in a common service environment, and may thereby develop their own subculture.

Johnston[14] stressed the importance of the customer's role in service operations and suggested that customer management should be approached in a similar way to employee management. He identified the following customer roles:

- 1 provision of explicit services in the following forms:
 - · self services as in supermarkets;

- services to other consumers, as in participation in a seminar or syndicate group;
- services provided for the organization, like returning.
- 2 Creation of the environment in contexts where the atmosphere is partly due to other customers.
- 3 Training other customers since customers observe one another's conduct.
- 4 Provision of information in specifying their requirements and providing feedback about satisfaction.

Johnston[14] further argued that customer management might encompass deciding on the type of customer who is wanted and how to go about customer selection. Service organizations also need to have procedures for "dealing with" customers who do not "fit".

Pragmatic considerations

Martin and Pranter[15] note the increasing isolation of individuals as the divorce rate increases, family unit sizes decrease, and individuals spend a greater proportion of their time at work. If innate needs for affiliation have not subsided, consumers may be increasingly turning to marketplace, work and educational environments to supplement interpersonal relationships traditionally nurtured within the home and family. Other trends, such as the rising level of education and the lower availability of leisure time may increase the selectivity of other individuals with whom consumers wish to associate.

In addition to these social trends, increased attention to compatibility management has a number of potential benefits for organizations in general. These are:

- As more competition enters the marketplace, customers have more choices and may gravitate towards those service environments with which they are most compatible.
- The retention of existing customers is affected by customer satisfaction.
- Many service organizations benefit from management practices that encourage customers to socialize or assimilate less experienced customers into the service.

In considering all of the physical contexts in which students interact in higher education, some of which are listed earlier, it is evident that many of these characteristics apply to differing aspects of students' experience of higher educational institutions. It is therefore appropriate to note that in such environments:

 There is a wide range of different types of higher education provision, which allows

International Journal of Educational Management 10/4 [1996] 15–20 students to select institutions on the basis of institutional profile. Once in the institution they are likely to be happier if they mix comfortably with other students with compatible beliefs, values and motivations. A higher education institution offers provision for more than one group of students. For example, there is a clear distinction between full-time and part-time students. Full-time students are often, but not always, younger than part-time students. They are seeking a basis from which to start their careers, have few responsibilities and are intent on social interchange with similar individuals, for the pleasure and sense of identity that it provides. Part-time students, on the other hand, are often seeking opportunities to advance their careers, may have significant work and family responsibilities, and benefit from the network of social contracts provided by the student group. In addition, part-time students spend less time together. Compatibility management both within and between these two categories deserves careful attention.

- All higher education institutions are concerned to maintain low drop-out rates. Too often students who seek to move from one institution to another, do so because they have not integrated effectively into the student group. In addition, in relation to students who continue their studies on a higher level course, retention is important.
- The use of, for instance, second-year undergraduate students in welcoming first year undergraduate students can have a very beneficial effect in establishing student-to-student interaction and in recognizing the contribution of social interaction to satisfaction in an educational environment.

Martin and Pranter[15] also identify the characteristics of service environments where compatibility management is particularly important. Such environments are characterized by as follows:

- Customers are in close physical proximity and, in particular, customers in close proximity may have a greater influence on satisfaction than those at a distance.
- Verbal interaction among customers is likely, owing to customers visiting these environments in groups.
- Customers are engaged in numerous and varied activities.
- The service environment attracts a heterogeneous customer mix as is particularly likely to be the case in public services, such as public libraries, transport, leisure facilities and health centres.
- The core service is to offer compatibility or social exchange.

- Customers may have to wait for the service.
- Customers are expected to share time, space or service utensils with one another.

Instances of incompatibility can usually be traced to some form of customer heterogeneity. Customer heterogeneity can arise from a number of different services including:

- Customers may have heterogeneous preferences, goals or sought benefits.
- Heterogeneity may be found in the context of stereotypical or prejudicial beliefs and attitudes.
- Differences in past experience often lead to incompatible frames of reference.
- Customer heterogeneity may stem from variability in customers' physical characteristics and medical conditions.

Other relevant dimensions of customer heterogeneity relate to differential levels of intelligence and aptitude, varied perceptions of crowding, conflicting value systems and personality-related differences in traits such as generosity, self-consciousness, self-esteem and patience. Martin and Pranter[15] also observe that customer heterogeneity does not always lead to incompatibility.

Ten roles of customer compatibility management

Pranter and Martin[1] introduce the metaphor of theatrical roles as a device for managing customer compatibility. Here we briefly review these roles and reflect on their applicability to student compatibility management in higher education. These roles may, at different times and in different contexts, need to be adopted by all of the service personnel with whom students interact. Clearly, tutors need to consider these roles when managing a learning environment in which student-to-student interaction is important. Equally, library managers, estates managers, catering facility managers and others who contribute to the service experience provided by the university to its customers, might usefully reflect on these proposed roles:

- 1 Rifleman. The role of rifleman represents the need to "shoot at" specific target markets. Selected target markets are by definition somewhat heterogeneous and these are disposed to customer capability. Academic managers need to identify target groups and to consider the implications of managing the different groups.
- 2 Environmental engineer. The physical environment needs to be designed in such a way that it is likely to produce compatible behaviours in customers. The environ-

International Journal of Educational Management 10/4 [1996] 15–20

- mental engineer constructs the "scenery" and distributes "props" in such a way as to make customers and employees compatible and therefore likely to perform in an acceptable way. For example, seating may be positioned in rows or groups, in order to facilitate either intergroup or intragroup communication. Décor and scenery may also be used to hide other customers. In education, classroom arrangement is a major feature of the scenery which needs to be critically positioned in order that an appropriate atmosphere with a mixture of seclusion and openness can be created.
- 3 Legislator. The legislator creates a compatible service environment through the enactment of rules and policies that guide the behaviour of patrons. Typically three types of behaviour are normally controlled:
 - behaviour that other customers may find offensive or distasteful, such as taking shoes off in class;
 - behaviour that infringes on the rights of others, such as not waiting in a queue;
 - behaviour that potentially jeopardizes the health and safety of others, such as smoking.
- 4 Matchmaker. The matchmaker seeks to group customers together in such a way as to achieve group homogeneity within groups. Matchmaking may be designed to minimize conflicts or irritations between customers, by bringing customers of like type together.
- 5 *Teacher.* Teachers pass on information that is intended either to:
 - instil expectations or norms, such as no smoking policies or practices associated with, say, handing in assignments ontime: or
 - educate the customer with respect to how to use the service, as in, for example, access to tutors, or library access for specific projects.
- 6 Santa Claus. The Santa Claus role is associated with recognizing, rewarding and reinforcing desirable, and compatible behaviour among customers. This role is often implemented informally, for instance, by a tutor thanking a student for assisting another student and recognizing the student's contribution to the group. On a more formal level, Santa Claus may reward customers by special awards for "desirable behaviour".
- 7 Police officer. The need for the police officer role can be minimized by effective use of the teacher and Santa Claus roles. When necessary, the police officer enforces standards of behaviour. Examples include asking rowdy students to be quiet or insist-

- ing that students do not smoke in a nonsmoking environment. At the extreme, the role involves asking unco-operative students to leave the premises. While the role of the police officer should be minimized, all societies need rules, and in order that these rules are acknowledged and responded to for the majority of the time, it is important to have an agent to enforce these rules when necessary.
- 8 Cheerleader. Cheerleaders encourage customers to pull together by conveying a sense of belonging and togetherness. At its simplest the cheerleader role is in evidence when a teacher triggers contact between two students.
- 9 Detective. The detective needs to identify information on customer compatibility and to ascertain which features of other customers irritate fellow customers. The detective has a fact-finding role which assists other roles thus:
 - help the rifleman to find compatible target markets;
 - help the legislator to draft appropriate codes of conduct;
 - ensure that the matchmaker utilizes the optimum bases for segregation;
 - monitor the effectiveness of the teacher and the environmental engineer;
 - alert the police officer and Santa Claus as to which customer's behaviour requires attention.
- 10 *Director*. The director has responsibility for managing the customer compatibility programme. The role involves polishing the script, casting the other roles, coaching the actors and inspiring them to perform well, and otherwise overseeing customer-to-customer encounters.

Conclusion

This article emphasizes the need to attend to customer-to-customer interaction in the higher education environment. It argues that students' satisfaction or dissatisfaction with their experience of a university may be significantly influenced by their experience of other students, although they may be reluctant to comment on the behaviour of other students. Customer compatibility management supplements other approaches to quality improvement, such as TQM. Tutors and managers of the educational environment have always recognized that some features of student-to-student interaction need to be managed. This article borrows some concepts from the services marketing literature and proposes a more focused and comprehensive customer compatibility management programme.

International Journal of Educational Management 10/4 [1996] 15–20

The theatrical metaphor is used to illustrate the roles and functions that need to be adapted in a compatibility management programme. The implementation of a customer compatibility management programme is likely to be most successful in an environment where there is already a commitment to enhancing quality and where processes for the improvement of quality are part of the organizational culture. The roles that need to be evident in a customer compatibility programme need to be adopted by different members of staff in different contexts. Further investigation concerning the way in which these roles can be embedded in a higher education institution, probably through a series of case studies covering different types of institution, would be valuable.

References

- 1 Pranter, C.A. and Martin, C.L., "Compatibility management roles in service performers", Journal of Services Marketing, Vol. 5 No. 2, 1991, pp. 43-53.
- 2 Woods, P., "Critical events in education", British Journal of Sociology of Education, Vol. 14 No. 4, 1993, pp. 355-71.
- 3 Gordon, G. and Partington, P., *Quality in Higher Education: Overview and Update*, USDU Briefing Paper No. 3, USDU, Sheffield, 1993.
- 4 Hart, C. and Shoolbred, M., "Organizational culture, rewards and quality in higher education", *Quality Assurance in Education*, Vol. 1 No. 2, 1993, pp. 22-9.

- 5 Marchese, T., "TQM reaches the academy", *AHHE Bulletin*, No. 44 Vol. 3, 1991, pp. 3-9.
- 6 Ewell, P.T., "Assessment and TQM: in search of convergence", *New Directions for Institutional Research*, Vol. 18 No. 3, 1991, pp. 39-52.
- 7 Cornesky, R., Implementing Total Quality Management in Higher Education, Magnar Publications, Madison, WI, 1991.
- 8 Bolton, A., "A rose by any other name: TQM in higher education", *Quality Assurance in Education*, Vol. 3 No. 2, 1995, pp. 13-8.
- 9 Chase, R.B. and Acquilano, N.J., Production and Operations Management: A Life Cycle Approach, Irwin, Homewood, IL, 1992.
- 10 PA Consulting Group, The Total Quality Experience: A Guide for the Continuing Journey, PA Consulting Group, London, 1990.
- 11 Taylor, A. and Hill, F.M., "Implementing TQM in higher education", *International Journal of Educational Management*, Vol. 6 No. 4, 1992, pp. 4-10.
- 12 Taylor, A. and Hill, F., "Quality management in education", *Quality Assurance in Education*, Vol. 1 No. 1, 1993, pp. 21-8.
- 13 Lin, B., "Application of total quality management on the campus", *Training for Quality*, Vol. 1 No. 3, 1993, pp. 34-8.
- 14 Johnston, R., "The customer as employee", International Journal of Production & Operations Management, Vol. 9 No. 5, 1989, pp. 15-23.
- 15 Martin, C.L. and Pranter, C.A., "Compatibility management: customer-to-customer relationships in service environment", *Journal of Services Marketing*, Vol. 3, 1989, pp. 5-15.